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**PAYMENT AND  
SETTLEMENT  
SYSTEMS**

**The National  
Payment System  
in 2013**

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## INTRODUCTION

The current stage in development of the national payment system (NPS) and its components, based on the systemic legal regulation, is characterised by the generally formed structure of payment services principal suppliers in the Russian market. The Bank of Russia cooperates constructively with the NPS entities it regulates, which improves the transparency, contributes to meeting the demand for highly reliable modern payment instruments and for the development of a non-cash environment.

Developing within the framework of global trends, applying scientific and technological achievements and advantages of cooperation of banks and other than credit institutions to create modern financial products, payment service providers are increasingly adopting high-tech payment services into their practices, thus expanding the access to financial services, assisting the spread of non-cash payment instruments, as well as the increase in the speed of executing customer payments.

Nowadays the international payment systems and payment service providers are playing an increasingly important role, not only in the global market, but also in the domestic market of many countries. Openness and mutual penetration of elements of the financial and payment infrastructure at the international level, along with the obvious benefits of cooperation in the field of technology and business processes, bring additional risks to the domestic markets, which in the NPS can have an adverse impact on the stability of the Russian payment services market.

Due to such risks in the Russian market, in the sphere of NPS steps were taken to ensure control over the production of payment infrastructure services by operators of the payment systems under the Russian jurisdiction (primarily operators of payment systems involving the use of payment cards) that improve the efficiency and availability of these services and increase the share of non-cash payments.

At the legislative level, additional requirements were established for operators of payment systems and for payment infrastructure services operators involved by the former. In particular, the payment infrastructure services operators are forbidden to unilaterally suspend (discontinue) the production of services to the payment system participants, as well as to include such terms in the rules of payment systems.

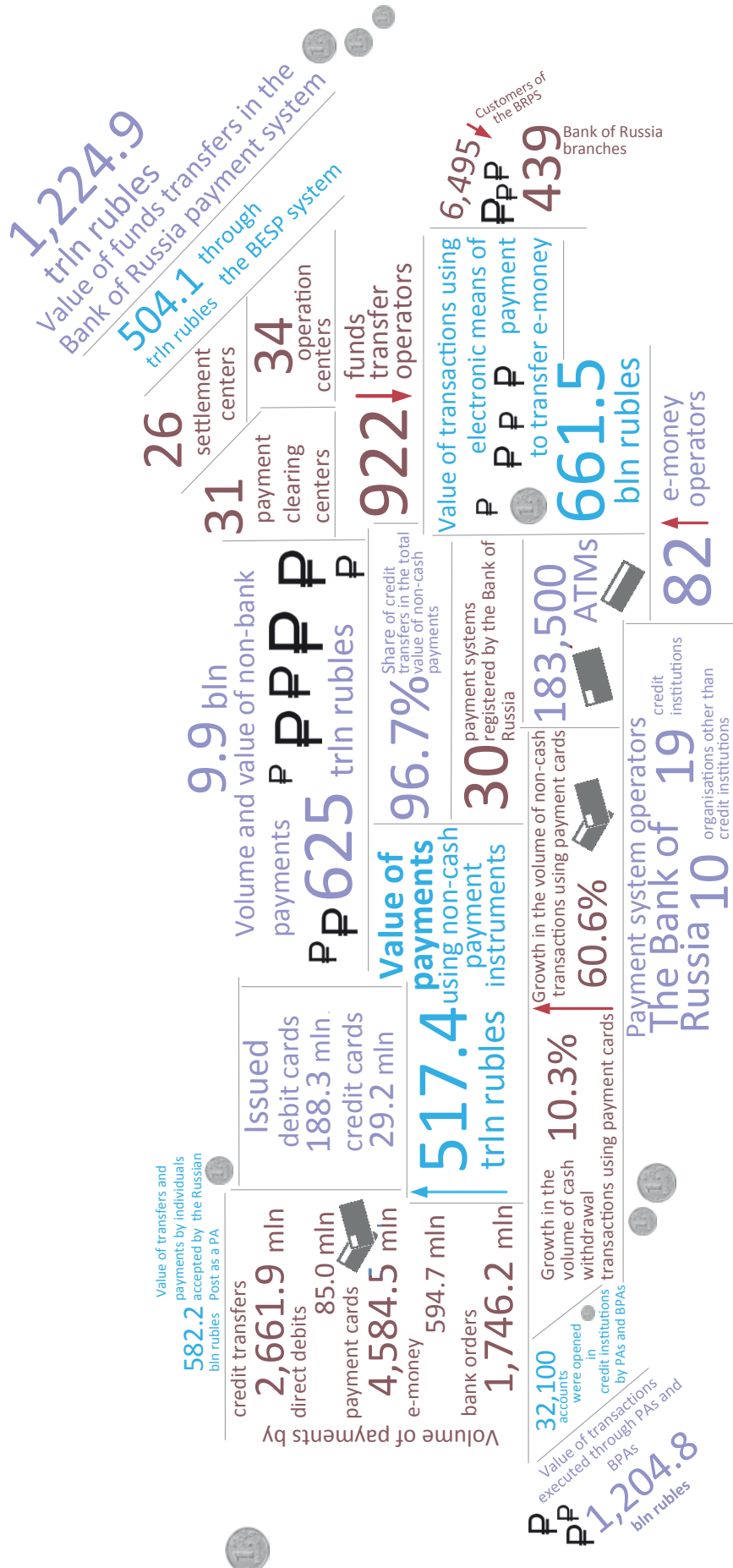
To minimise the risks associated with such actions, new rules were introduced: operators of payment systems, which are not of national importance, should make a security deposit to a special account with the Bank of Russia, while the Bank of Russia shall have the right to impose penalties on payment system operators, which have unilaterally suspended (discontinued) the production of payment services, as well as on operators, which have failed to make a security deposit (or made incomplete deposit). In addition, in order to avoid such risks a national system of payment cards (NSPC) is being created within the NPS. The NSPC is designed to process domestic retail payments and develop national payment instruments.

A characteristic feature of the current stage of the international and domestic payment services market development is the growth of the technological component and the resulting complexity of processing funds transfers, which also contributes to increased risks in the NPS. Throughout the world, the growth of the payment services market is accompanied by fraud increase. Thus, the problem of ensuring security in the payment services area comes to a new level and strict safety requirements for service providers have become an integral part of quality payment products.

The appearance of fundamentally new instruments, crypto-currencies used by consumers to make virtual payments and financial transactions can be attributed to current challenges. This problem has attracted the attention of regulators in many countries, including the Bank of Russia, the priority aim of which is to protect the rights of financial services consumers and prevent the use of crypto-currencies for illegal purposes.

The purpose of this analytical issue is to describe the dynamically developing Russian market of payment services and characterise its most important events, as well as familiarise readers with international experience and pressing problems in the NPS that require attention.

# NATIONAL PAYMENT SYSTEM IN FIGURES\*



\* Explanation of the composition of indicators, see in the text of the issue.

# CHAPTER I. PAYMENT SYSTEMS

## I.1. The Bank of Russia Payment System

Among the payment systems operating in the Russian Federation, the Bank of Russia payment system plays a key role in ensuring the transfer of funds within the banking system constituting the institutional framework of the national payment system.

The Bank of Russia payment system (hereinafter, the BRPS) is a complex organisational and technological system that performs a number of functions aimed at achieving the main objectives of the Bank of Russia established by the legislation of the Russian Federation, and provides a wide range of services to credit institutions and public authorities. The BRPS has the lowest risk in the national payment system and is a major stabilising element of the national payment infrastructure. In recent years the development of the BRPS was characterised by expansion in the range of liquidity management services, account management options, by interaction with organised markets, as well as the introduction of the electronic document exchange.

### I.1.1. Functionality and services provided by the Bank of Russia payment system

Funds transfer within the BRPS is made through the System of Banking Electronic Speedy Payments (BESP) in the real time mode (urgent transfer service) and through the systems for intraregional electronic payments (VER) and interregional electronic payments (MER), as well as using postal and telegraph technology (non-urgent transfer service).

The BRPS rules have been established in accordance with the requirements of the Federal Law No. 161-FZ, dated June 27, 2011, 'On the National Payment System' (hereinafter, the Federal Law No. 161-FZ) and the Bank of Russia regulations, including the Bank of Russia Regulation No. 384-P, dated June 29, 2012, 'On the Bank of Russia Payment System'. This document defines, inter alia, the criteria for participation, suspension and termination of participation in the BRPS, the applied forms of non-cash settlements and procedures for the transfer of funds within the BRPS, the order of payment clearing and settlement, as well as the temporary regulation of BRPS functioning.

In 2013, the BRPS rules were modified which was caused, in particular, by the introduction of a set of standards that provide for the transfer of funds between Russian and foreign credit institutions in Russian rubles through the BRPS, including changes in the rules of its operation, according to which the BESS system will begin its work two hours earlier. It has become possible to use in the BRPS the interbank orders compatible with SWIFT messages (MT202) financial reports, and there is a possibility of assigning a BIC code to a foreign credit institution in accordance with the Russian BIC Directory and involving third-party organisations as operators of payment infrastructure services. To further develop the national payment system legislation, the Bank of Russia issued the Ordinance No. 3150-U, dated December, 23, 2013 'On the Bank of Russia Activities as Payment Infrastructure Services Operator', which stipulates the requirements for the organisation and implementation of the Bank of Russia activities which is an operator of payment infrastructure services, operational center, payment clearing center and the BRPS clearing center.

To achieve these goals functional requirements 'The Prospective the Bank of Russia Payment System' were developed and approved which define the aim of creation, purpose and basic principles of design and operation of the prospective BRPS. This document defines the requirements for the operational functions, the payment clearing functions and settlement functions in making funds transfers to the BRPS.

In 2013, work to develop and improve the BRPS banking settlement technologies, regulatory support of its operation and coordination within the BRPS of the activities of the Bank of Russia regional branches was continued. In addition, a set of measures was implemented to maintain an adequate level of the software and hardware platform performance to ensure the continuous production of payment services, their accessibility for the payment system participants. In 2013, the regulatory framework of the BRPS federal component was formed and steps were taken to unify the non-urgent transfer services in all the regional components of the BRPS.

Currently, the major parts of the technical infrastructure ensuring the BRPS functioning are the collective data processing system (KOI), which comprises easy-access collective data processing centers (KTsOI), as well as the transport system of electronic settlement and the Bank of Russia customer interaction interface in the regional components of the BRPS. A set of measures, including the centralised management of software and hardware resources, is being implemented within KOI. Operation of the BESS system is ensured by a software complex based on KTsOI and by equipping the respective division of the Bank of Russia head office with workstations which make it able to fulfill such functions as analysis, operational management and monitoring of the BESS system operation. In

2013, the modernisation of the existing standard software package RABIS-NP was completed to ensure a single composition of services provided to all the Bank of Russia customers at the KTsOI-1 and KTsOI-MR, whereas the outdated software systems have been fully decommissioned.

To expand the use of electronic settlements, necessary measures were taken to introduce urgent transfer services in all the Bank of Russia regional branches, and the composition of the BRPS system's participants expanded by including divisions of the Bank of Russia regional branches in the North Caucasus region as special settlement participants.

Electronic document exchange has been introduced at all the BRPS sites accepting for execution and executing orders. The Bank of Russia customers participating in the electronic document exchange, including the recipients and banks of recipients, have a possibility of submitting to the Bank of Russia any electronic orders, including collection orders, payment claims, payment orders to be effected in all the settlement systems of the Bank of Russia. All the actions performed electronically to obtain the acceptance of payment claims have been settled.

The application of electronic collection orders may be used by infrastructural organisations of financial markets to complete settlements with funds held in accounts with the Bank of Russia, using the 'delivery versus payment' and 'payment versus payment' mechanisms. The Bank of Russia may also use them within the framework of operations to implement the state monetary policy.

The Bank of Russia continued to develop its interaction with federal executive authorities with regard to the electronic document exchange. The rules aimed at ensuring the automated information processing in government payments were improved, particularly those involving the use of a unique identifier of payment assigned to the payee.

As part of the measures taken for ruble to become Continuous Linked Settlement system (hereinafter, the CLS) eligible in 2013 the Bank of Russia and the clearing bank of the CLS system – CLS Bank International (the CLS Bank) took steps that allowed the completion of the third stage of the Russian ruble involvement in the CLS (examination stage) and the commencement of the last stage of the process – stage of improvements and implementation.

During the year, the Bank of Russia held consultations and meetings with representatives of the CLS Bank aimed at determining the terms of the correspondent account agreement between the Bank of Russia and the CLS Bank, the test scenarios, and the necessary improvements with regard to the Bank of Russia and the CLS cooperation and exchange of electronic messages between the Bank of Russia, the CLS and the CLS system participants.

In November 2013, the CLS tested the interaction of Russian credit institutions, prospective nostro agents of the CLS system, with the BESP system in transferring funds to and from the CLS account with the Bank of Russia.

### Box 1. Evolution of the CLS System<sup>1</sup>

With trillions of dollars' worth of trades being executed each day, the foreign exchange (FX) market is of critical importance to the global economy. FX is the world's most global and liquid asset class, with its efficiency as a market derived in part from the effective risk management. Within this broad category, settlement risk is the most significant risk faced by the FX industry, the same specific concern that led directly to the creation of CLS in 2002.

CLS's origins can be traced back to 1974, as dozens of counterparties suffered as a result of the bankruptcy of Herstatt Bank, but the real steps in this direction were taken only in 1996, after the publication by the Bank for International Settlements of the report 'Settlement Risk in Foreign Exchange Transactions Market' ('The Allsopp Report'). 'The Allsopp Report' was a response to the increasing concerns of central banks around the high level of settlement risk aligned with an unexpected market event, and the fear this could instigate a serious disruption in FX markets and financial system liquidity. 'The Allsopp Report' made three recommendations to reduce the systemic risk in settlements on FX transactions associated with:

- 1) action to follow by individual banks to control their FX exposures;
- 2) action by industry groups to provide risk reducing multi-currency services;
- 3) action by central banks to induce private sector progress.

The project to create a CLS system was initiated by approximately 70 world's largest financial groups. The 2008 financial crisis was a defining moment for CLS, as it withstood the market shocks to perform just as it was intended. The financial crisis has influenced the significant shifts in the agendas and priorities of financial institutions and regulators, with risk management rising in profile and importance.

In 2012, the CLS Bank, which is a part of the CLS system, was designated systemically important Financial Market Utility (FMU) under The Dodd–Frank Wall Street Reform and Consumer Protection Act, adopted in July 2010.

**The CLS system includes: 1) CLS Group Holdings – a holding company incorporated under the laws of Switzerland and supervised by the Board of Governors of the Federal Reserve System as a bank holding company operating in the USA; 2) CLS UK Intermediate Holdings – a limited liability company incorporated under the laws of England and Wales, which provides corporate services (i.e. financial, legal, human resources, audit and assurance services as well as communication services) to the CLS Bank and its affiliates; 3) CLS Bank – a corporation founded under the Edge Act (of December 24, 1919) in accordance with the laws of the USA, which is a financial institution recognised by the Financial Stability Oversight Council of the USA (FSOC) as a systemically important institution, and is under the supervision of the Board of Governors of the Federal Reserve System; 4) CLS Services – a limited liability company incorporated under the laws of England and Wales, which provides operational services and back office services to the CLS Bank and its affiliates; 5) CLS Aggregation – a limited liability company incorporated under the laws of the State of Delaware, USA, which provides aggregation services ensuring the aggregation of multiple currency transactions into a single transaction.**

When the CLS Bank was established, it comprised 39 member organisations, and the settlements were carried out in seven currencies. Now, the number of members has increased to 63, and the number of cur-

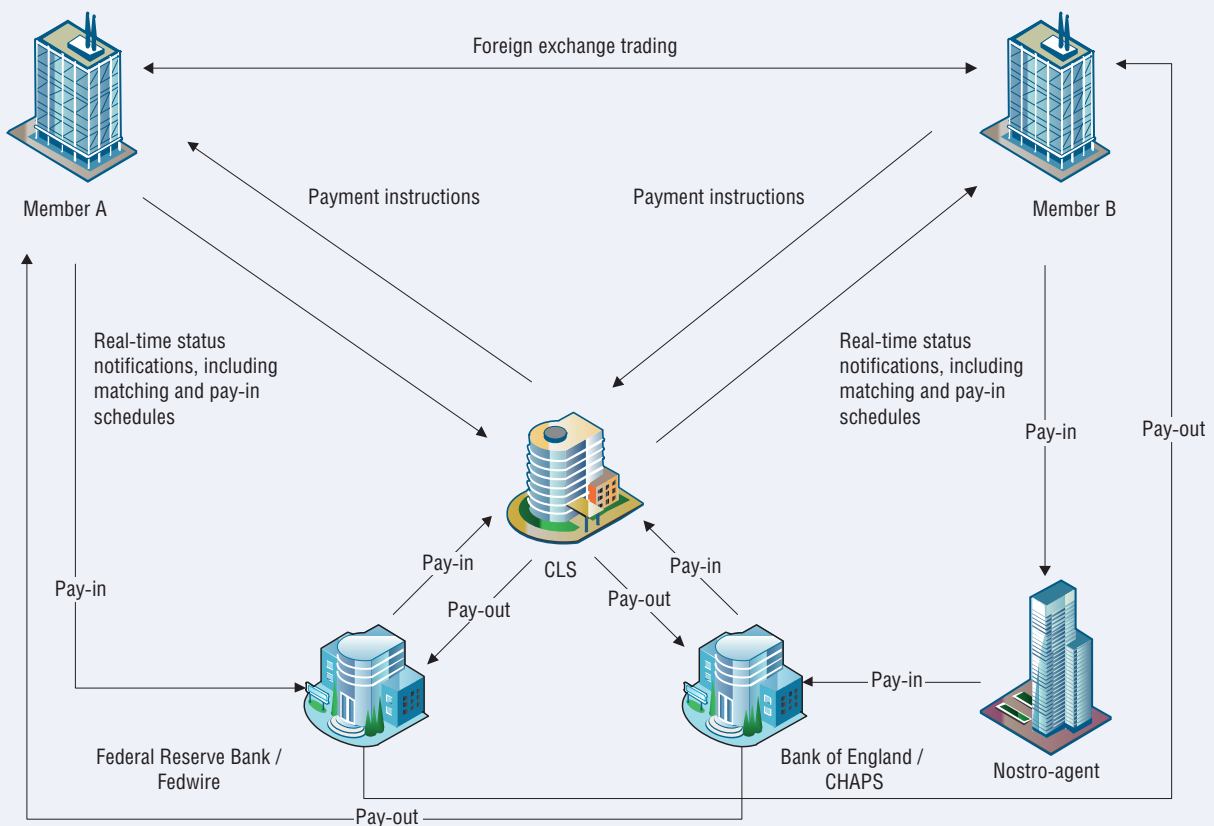
rencies – to 17. Starting from 2008, the number of third parties exceeded 9 thousand. At launch, CLS planned for daily settlement volumes of 45 thousand; in May 2013 it reached 2.9 million.

### CLS Bank Operation

The CLS Bank opens accounts to central banks for each of the 17 eligible currencies and a single multi-currency account that each settlement member has with CLS.

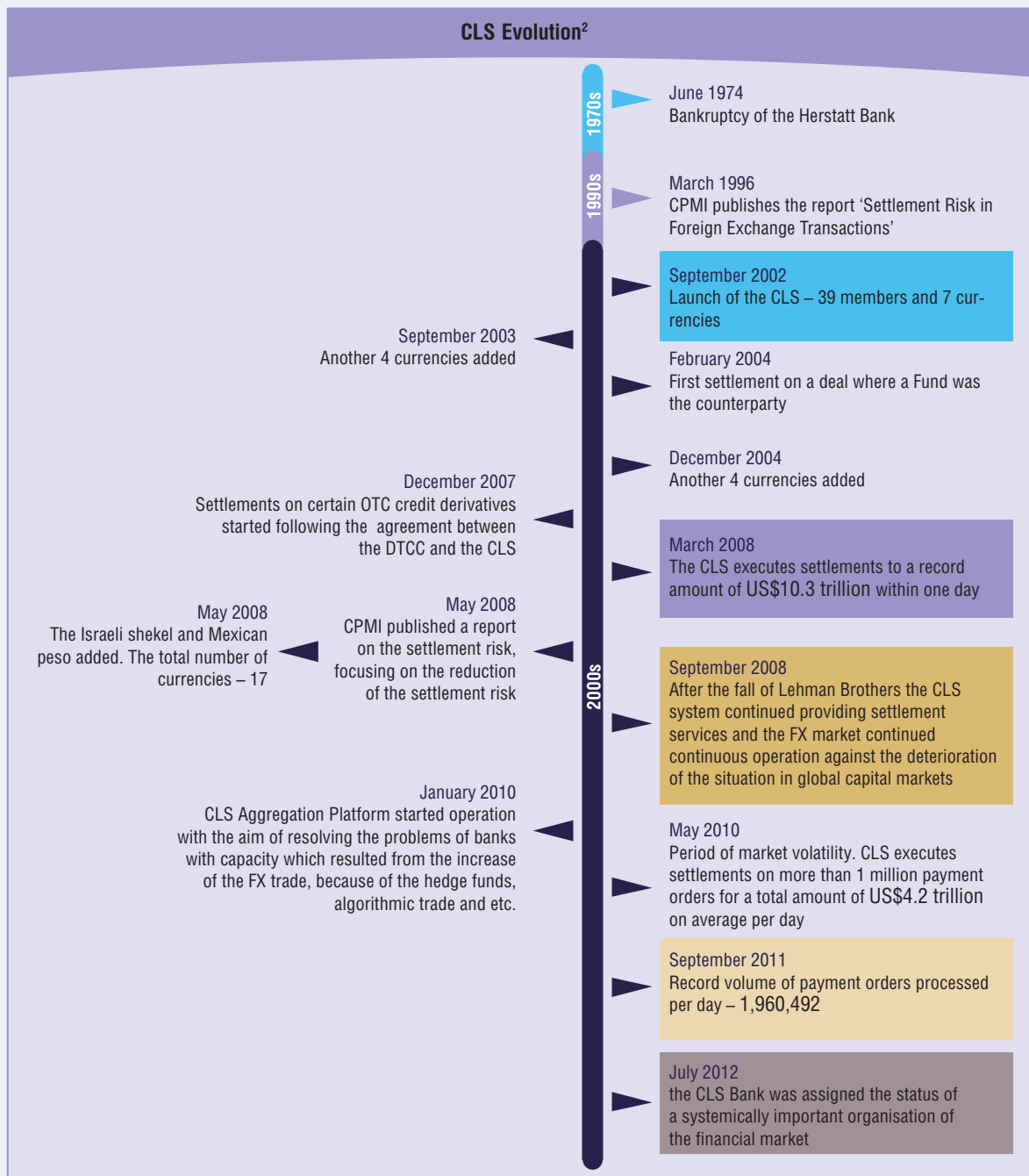
The privileges extended by the central banks of participating currencies in CLS enable settlement in one time frame and one system, to mitigate the risk of loss of principal. CLS has been granted unique direct access to local RTGS systems in each jurisdiction whose currency it settles.

The process of CLS Bank settlement of transactions in pounds of sterling and US dollars



Following an FX trade, settlement members submit payment orders to CLS, which are then authenticated, matched and stored in the system until settlement date. On each settlement date, CLS simultaneously settles each pair of matched payment orders by making the corresponding debit and credit entries on settlement members' CLS accounts on a 'payment versus payment' principle. Due to this principle it has become possible to minimise the risk of losing the principal amount (settlement risk).





<sup>1</sup> Source: 'The Ten-Year Evolution of CLS: Enhancing Financial Stability and Mitigating Foreign Exchange Settlement Risk' (Journal of Payments Strategy & Systems. 2013. Vol. 7. No 2. P. 112–118).

<sup>2</sup> Source: [www.cls-group.com](http://www.cls-group.com)



## I.1.2. Interaction with the Federal Treasury and other federal executive bodies

Payments made by the Federal Treasury within the implementation of its function of ensuring the federal budget execution and cash servicing of the budget execution within the budget system of the Russian Federation, are of paramount national importance. The volume of payments of the Federal Treasury and its regional branches that participate in the electronic exchange of payment documents with the Bank of Russia is growing every year, accounting for a significant share of payments effected through the BRPS.

In 2013, the Federal Treasury and its regional branches executed 195.5 million payments, which accounted for 13.9% of the total volume of operations executed through the BRPS, totaling 74.6 trillion rubles, or 10.0% of total value of transactions. For comparison: in 2012 183.9 million payments (14.0%) were executed amounting to 62.6 trillion rubles (9.0%).

### Box 2. The concept of reforming the budget payment system

In 2013, the Ministry of Finance of the Russian Federation (Russian Ministry of Finance) approved the Concept of Reforming the System of Budgetary Payments for the period until 2017 (hereinafter, the Concept), coordinated with the Bank of Russia.

The main aim of the Concept is to improve the efficiency of managing free cash balances of the budget system of the Russian Federation and executing operations in the public sector. To solve this problem the Russian Ministry of Finance, the Federal Treasury with the involvement of the Bank of Russia shall perform a number of tasks, namely:

- to build a system of the single bank account of the Russian Federal Treasury and improve the operations executed on this account;
- to implement the tools of targeting cash balances of the single bank account of the Russian Federal Treasury and develop tools for placing the excess liquidity available in the single bank account of the Russian Federal Treasury. To this end, within the framework of the Concept of the Bank of Russia Payment System Development for the Period until 2015, the Federal Treasury will be provided with a specialised service to manage the overall liquidity in the specified single account.

It is planned to effect the reform of the budget payment system is planned to comprise two stages:

#### Stage I (2013–2015):

- to amend laws and other regulations, including joint regulations of the Bank of Russia and the Russian Ministry of Finance, on the issues outlined in the Concept,
- to develop accounting procedures for the regional branches of the Russian Federal Treasury provided that the regional branch of the Federal Treasury has its bank account with the Bank of Russia;

#### Stage II (2015–2017):

- to form a system of the single bank account of the Russian Federal Treasury,
- to introduce the tools of targeting cash balances of the single bank account of the Russian Federal Treasury,

- to introduce the tools for placing the excess liquidity available in the single bank account of the Russian Federal Treasury.

In 2013, the Bank of Russia branches assisted the Federal Treasury in the shift to the cash servicing of budgets of territorial government non-budgetary funds by Federal Treasury bodies and in the preparation for the transition starting from the end of 2013 to cash servicing of the budgets of government non-budgetary funds (the Pension Fund of the Russian Federation, the Social Insurance Fund of the Russian Federation, the Federal Compulsory Medical Insurance Fund) by Federal Treasury bodies.

In order to minimise the cash circulation in the public sector, in 2013 the accounts intended for issuing and crediting cash funds of public sector organisations were transferred from the Bank of Russia divisions to credit institutions that can issue payment cards.

As a result, the total number of the Bank of Russia customers, other than credit institutions, decreased significantly (by 2,200, or 36.3%), including Federal Treasury bodies (by 100, or 27.9%). By the end of 2013, they accounted for 3.8 and 0.4 thousand respectively. The total number of accounts of the Bank of Russia customers, other than credit institutions, in 2013 decreased by 8.6% to 56.5 thousand, including the accounts of Federal Treasury bodies – by 2.6% to 48.8 thousand.

As part of the budget process reform, which is aimed at enhancing the efficiency and transparency, as well as ensuring the safety and reliability of government payments, the Bank of Russia together with the Federal Treasury and the Russian Ministry of Finance is working to improve the methodology for servicing the accounts of the Russian Federation budget system, as well as assists in the introduction of modern technologies and electronic means of payment in the execution of payments by the Federal Treasury.

The Bank of Russia provides regional branches of the Federal Treasury with the service of transferring the unused balances formed in the accounts of Federal Treasury divisions to the single account of the Federal Treasury, which allows to significantly increase the concentration and centralisation of funds in this account, as well as ensures the basis for the development of an effective mechanism of the federal budget funds management.

**Chart I.1.** Number of the Bank of Russia customers, other than credit institutions, and accounts opened to them



### I.1.3. Quantitative and qualitative characteristics of the Bank of Russia payment system operation

The BRPS being systemically important in the national payment system remained an important component of ensuring the financial stability of the country in 2013. The volume and value of funds transfers made through the BRPS in 2013 increased by 6.5% to 1.3 billion transfers totaling 1,224.9 tril-

lion rubles. The ratio of the value of funds transfers made through the BRPS to the GDP value was 18.3 (18.5 in 2012). In 2013, the daily average volume of transfers was 5.4 million worth 5.0 trillion rubles (in 2012 – 5.1 million transfers worth 4.6 trillion rubles).

The number of customers served by the Bank of Russia fell during the year by more than a quarter and as of end of 2013 equalled 6,495. The reduction in the number of customers is caused, inter alia, by the transfer of accounts, intended for issuing and crediting cash funds of organisations, whose nominal accounts are open with the Federal Treasury bodies, the financial authorities of the Russian Federation constituent territories and municipalities from the Bank of Russia divisions to credit institutions.

The overwhelming majority of funds transfers effected through the BRPS were the transfers of credit institutions (85.5% in volume and 78.0% in value). The share of the Bank of Russia customers other than credit institutions was 14.4 and 8.8% respectively. The most part of these were transfers of the Federal Treasury bodies participating in the exchange of electronic messages with the Bank of Russia. In 2013, the BRPS handled 195.5 million transfers worth 74.6 trillion rubles (an increase by 6.3% in volume and by 19.2% in value).

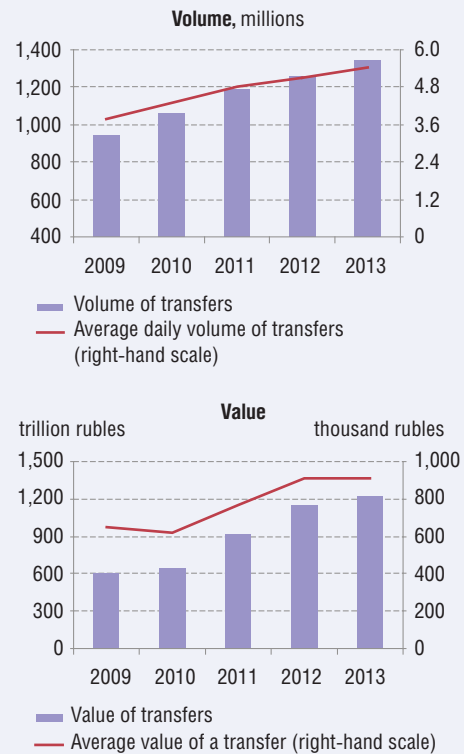
Almost all the funds transfers in the BRPS were effected on the basis of orders in the form of a credit transfer (98.1% in volume and 99.8% in value). Transfers in the form of direct debits accounted for a mere 1.9 and 0.2% respectively, while their structure was dominated by collection orders (92.6% in volume and 97.6% in value). The average amount of a transfer in the form of a direct debit (77.7 thousand rubles) was significantly less (almost 12 times) than that of a credit transfer.

As in previous years, in 2013 the largest volume and value of transfers effected through the BRPS were observed in the Central Federal District (39.3 and 86.2% respectively), of which nearly one-third in volume and 85% in value were transfers carried out in Moscow and the Moscow Region (hereinafter referred to as the Moscow Region). The Volga, Siberian and Northwestern Federal Districts accounted for 17.7; 11.2; 10.7% of the total volume and 3.9; 1.9; 3.1% of the total value.

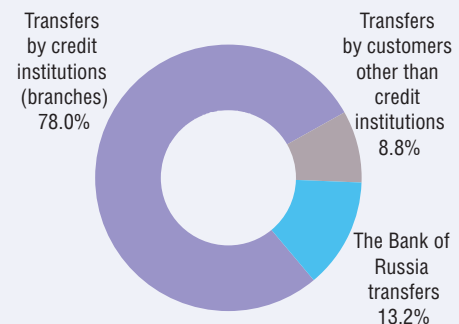
In 2013, the structure of funds transfers made through the BRPS was still dominated by settlements through the VER systems, but against 2012, their share in the total volume and value of transfers decreased to 69.7 and 49.3% respectively. This situation was typical for all federal districts except for the Southern Federal District, where the share of transfers using the VER systems in the total volume of transfers effected through the BRPS, increased by 3.9 percentage points to 72.0%.

The share of settlements through the MER system, on the contrary, increased both in the volume of transfers (by 3.6 percentage points to 30.1%) and in value (by 0.5 percentage points

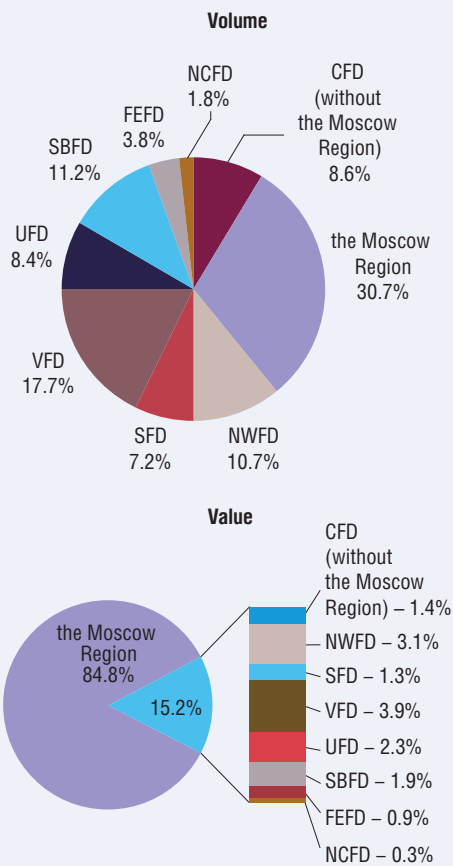
**Chart I.2.** Funds transfers effected through the BRPS in 2009–2013



**Chart I.3.** Value of customer transfers and transfers on the Bank of Russia own operations effected via the BRPS in 2013



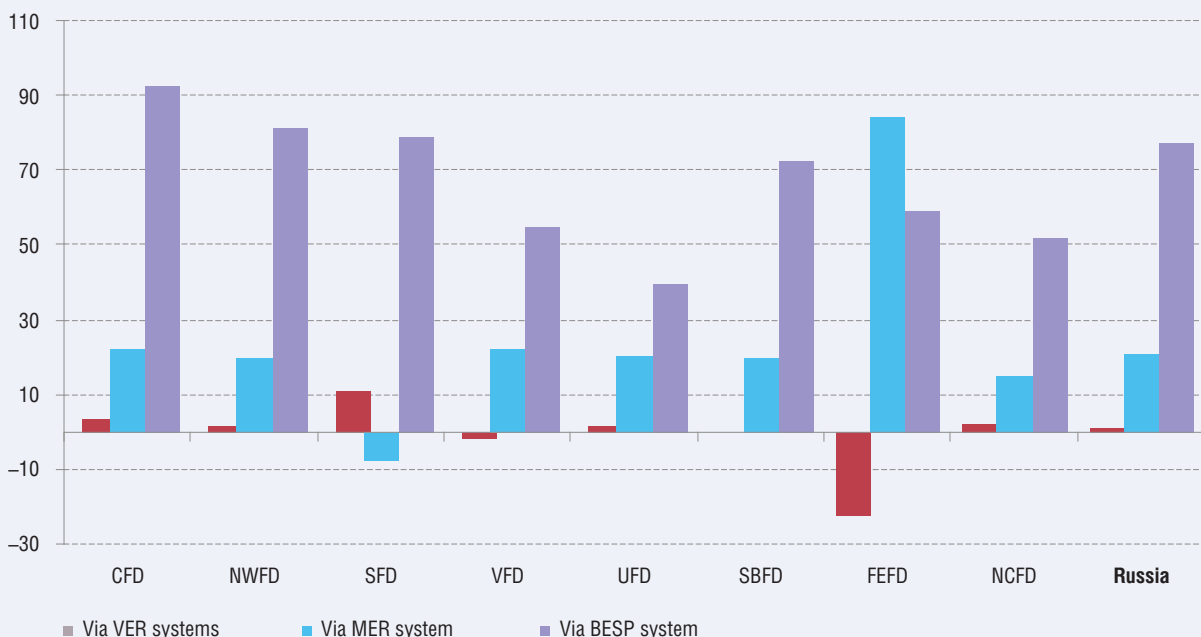
**Chart I.4.** Structure of funds transfers effected through the BRPS in 2013, by federal district



to 9.5%). The largest increase in this indicator was recorded in the Far Eastern Federal District (by 19.7 percentage points in volume and by 7.3 percentage points in value), the smallest – in the North Caucasus Federal District (by 2.8 and 0.5 percentage points). In the Southern Federal District, in contrast to all the other districts, a decrease in the share of transfers through the MER system was observed both in volume (by 4.0 percentage points) and in value (by 2.1 percentage points).

The structure of funds transfers in the BRPS was mainly influenced by high rates of growth in funds transfers through the MER system both in volume (by 21.1% to 404.4 million transfers) and in value (12.4% to 116.3 trillion rubles) in all the federal districts except for the Southern Federal District, where the volume of such transfers decreased by 8%. This is largely due to the shift of credit institutions to using the MER system for settlements between internal structural units, whose network had expanded also as a result of transforming branches of credit institutions into such divisions. The amount of one transfer through the MER system in 2013 was 287,700 rubles, which is twice less than the amount of a transfer through the VER systems by more than and by 833 times less than the amount of a transfer through the BESP system. On average, 1.6 million transfers amounting to 471.0 billion rubles were made through the MER system daily, with the largest volume and value of transfers per day registered in the Central and Volga Federal Districts – 0.6 million transfers amounting to 224.4 billion rubles and 0.3 million transfers totalling 68.0 billion rubles respectively. The smallest value of these indicators was observed in the North Caucasus Federal District:

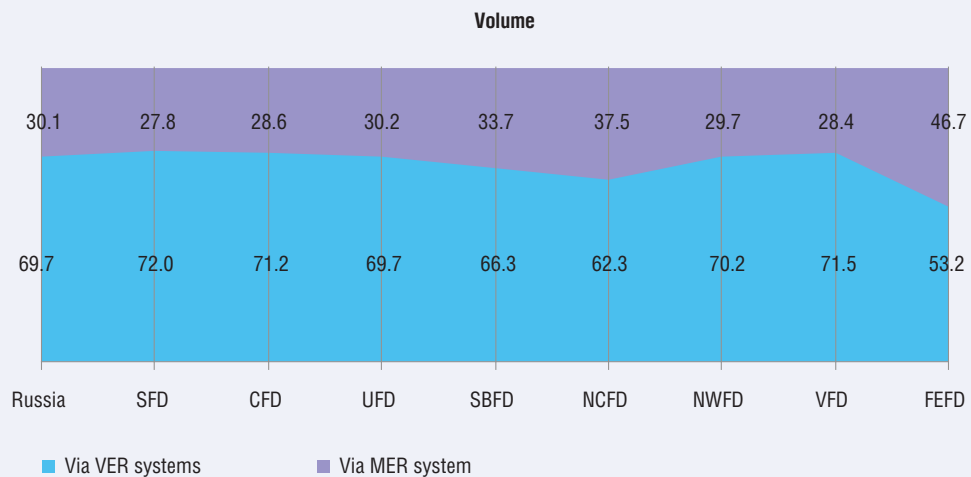
**Chart I.5.** Growth rates of funds transfers through the BRPS, by settlement system (2013 on 2012), %



35.6 thousand transfers amounting to 7.2 billion rubles were processed in the area per day.

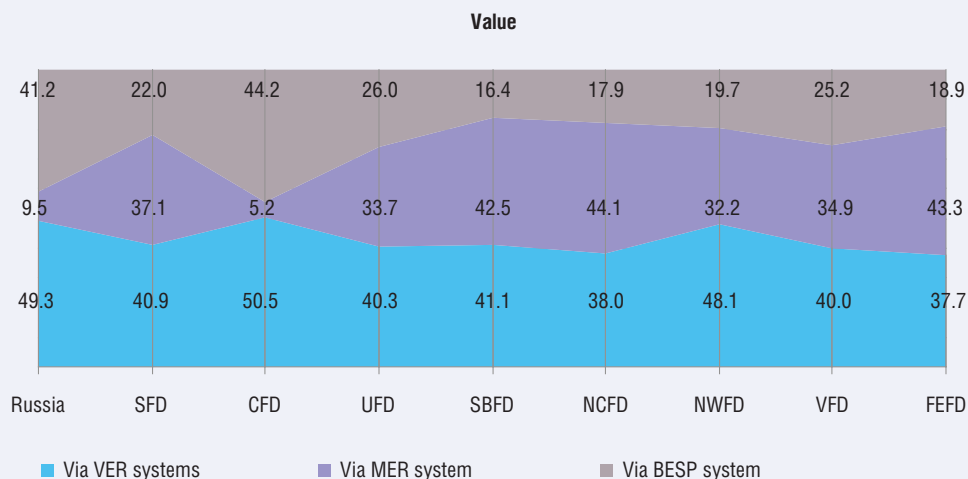
Unlike transfers through the MER system, the volume and value of transfers through the VER systems in 2013 as compared with 2012 did not change and amounted to 934.6 million transfers worth 604.4 trillion rubles. In some federal districts a reduction in transfers was registered (in the Far Eastern and Volga Federal Districts their volume decreased by 22.2 and 2.0% respectively and the value, by 2.9 and 0.5%). As many as 3.8 million transfers totalling 2.4 trillion rubles were carried out through the VER systems per day, which is much more than through the MER and BESP systems (2.3 times and 444.0 times in volume and 5.2 and 1.2 times in value respectively). The largest volume and value of transfers per day were processed in the Central Federal District (1.5 million transfers totalling 2.2 trillion rubles), the smallest – in the North Caucasus Federal

**Chart I.6.** Structure of funds transfers through the BRPS in 2013, by settlement system, %



*The share of transfers using the BESP system was less than 0.3%.*

*The share of settlements using paper-based letters of advice was less than 0.1%.*



*The share of settlements using paper-based letters of advice was less than 0.1%.*

District (59 thousand transfers totalling 6.2 billion rubles). In other federal districts, these indicators varied from 110 thousand transfers totalling 16.8 billion rubles in the Far Eastern Federal District to 686.8 thousand transfers amounting to 78.0 billion rubles in the Volga Federal District.

The values of the BRPS accessibility ratios (the ability to accept orders for money transfer on behalf of the Bank of Russia customers while making intraregional and interregional electronic settlements) in 2013 ranged from 99.80 to 99.99%.

One of the main directions of the Bank of Russia work to improve its own payment system was to ensure the further development of the BESP system, providing first of all for the execution of large-value and urgent payments for the implementation of monetary policy measures, for settlements in the interbank market, settlements with financial market infrastructures, payments of the Federal Treasury and its territorial bodies.

The changes in the institutional structure of the banking system of the Russian Federation have influenced the composition of the BESP system participants. Compared with 2012 their number decreased by 118, of which the number of direct settlement participants (DSP) – by 99 and associated settlement participants (ASP) – by 21. The number of special settlement participants (SSP) over the year increased twofold. The reduction in the number of DSPs and ASPs was mainly due to the decrease in the number of credit institutions, as well as the ongoing process of their structure optimisation, including the optimisation through the conversion of branches into internal structural units of credit institutions. As of end of 2013, the BESP system comprised 2,776 participants, of which:

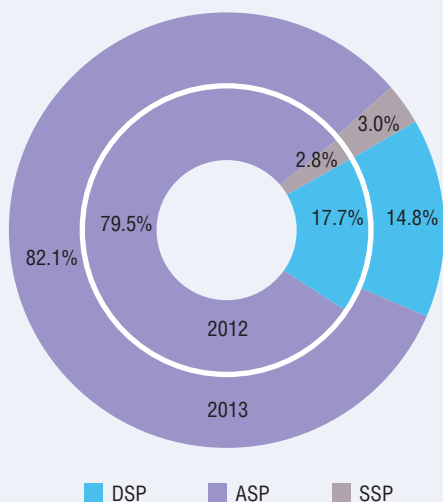
- 84 – SSPs (3.0% of the total number of the BESP system participants), of which 80 were main cash and settlement centers, including OPERU-1 of the Bank of Russia, and four units of the Bank of Russia Moscow Branch;

- 412 – DSPs (14.8% of the total number of the BESP system participants), of which 186 were credit institutions, 225 – branches of credit institutions and one organisation other than a credit institution (the state corporation «Deposit Insurance Agency»);

- 2,280 – ASPs – (82.1% of the total number of the BESP system participants), of which 734 were credit institutions, 1,459 – branches of credit institutions, one division of the Bank of Russia head office, 86 organisations other than credit institutions (85 – Russian Federal Treasury and its regional branches and one organisation – a trustee).

In 2013, the BESP system handled 2.1 million transfers worth 504.1 trillion rubles. On average 8.5 thousand transfers worth 2.0 trillion rubles were executed daily. The maximum volume and value of orders for transfer of funds sent during one operation day to the BESP system amounted to 14.9 thousand transfers and 4.0 trillion rubles respectively.

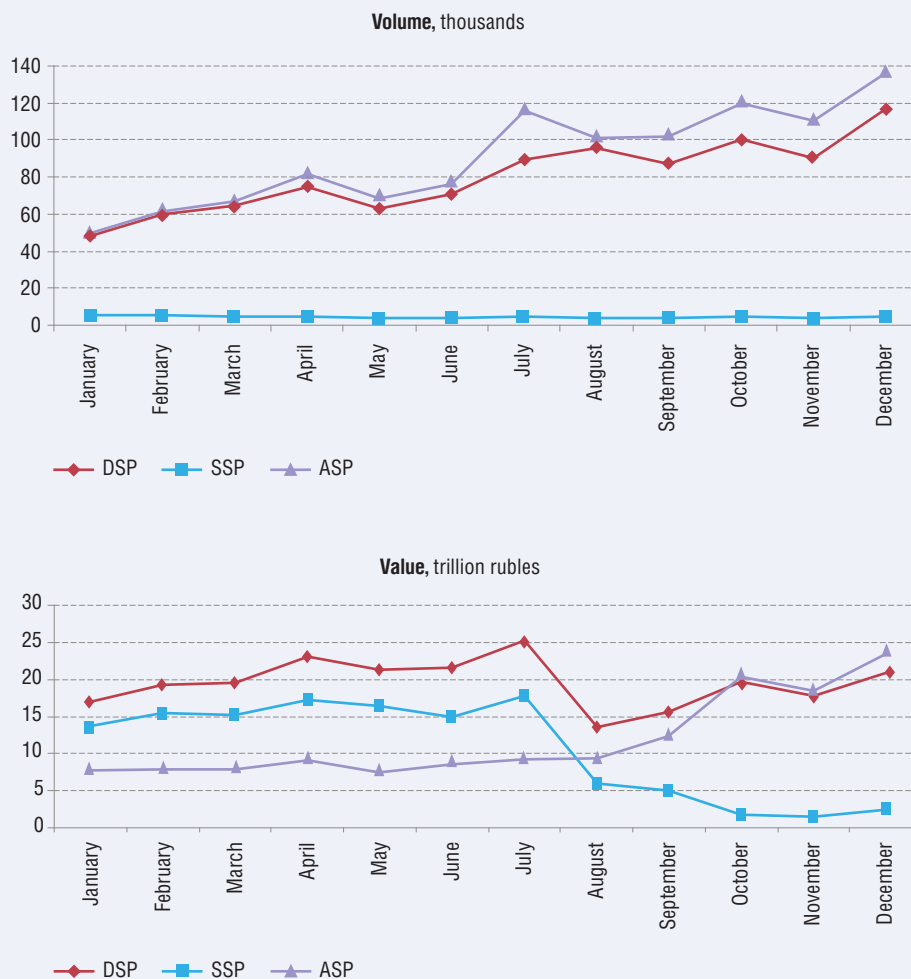
**Chart I.7.** Structure of the BESP system participants in 2012 and 2013



In 2013, the share of transfers effected through the BESP system was 0.2% of the total volume and 41.2% of the total value of funds transfers made through the BRPS. The Central Federal District registered the highest share of such transfers in the total transfers made through the BRPS of this district. In other federal districts this indicator varied from 16.4% in the Siberian Federal District to 26.0% in the Urals Federal District. The share of transfers through the BESP system in the total volume of transfers effected through the BRPS in all the federal districts, except for the Central Federal District, was 0.1%.

The largest volume of transfers per day was processed in the Central Federal District (4.7 thousand transfers totalling 1.9 trillion rubles), the smallest – in the North Caucasus Federal District (132 transfers worth 2.9 billion rubles). In other federal districts, this indicator ranged from 119.9 transfers totalling 8.5 billion rubles in the Far Eastern Federal District to 1,400 transfers totalling 49.1 billion rubles in the Volga Federal District.

**Chart I.8.** Funds transfers effected through the BESP system in 2013, by type of participants





### Box 3. Comparative analysis of quantitative indicators of the BEPS system and other real time gross settlement systems of countries – participants in the Committee on Payments and Market Infrastructures of the Bank for International Settlements in 2013

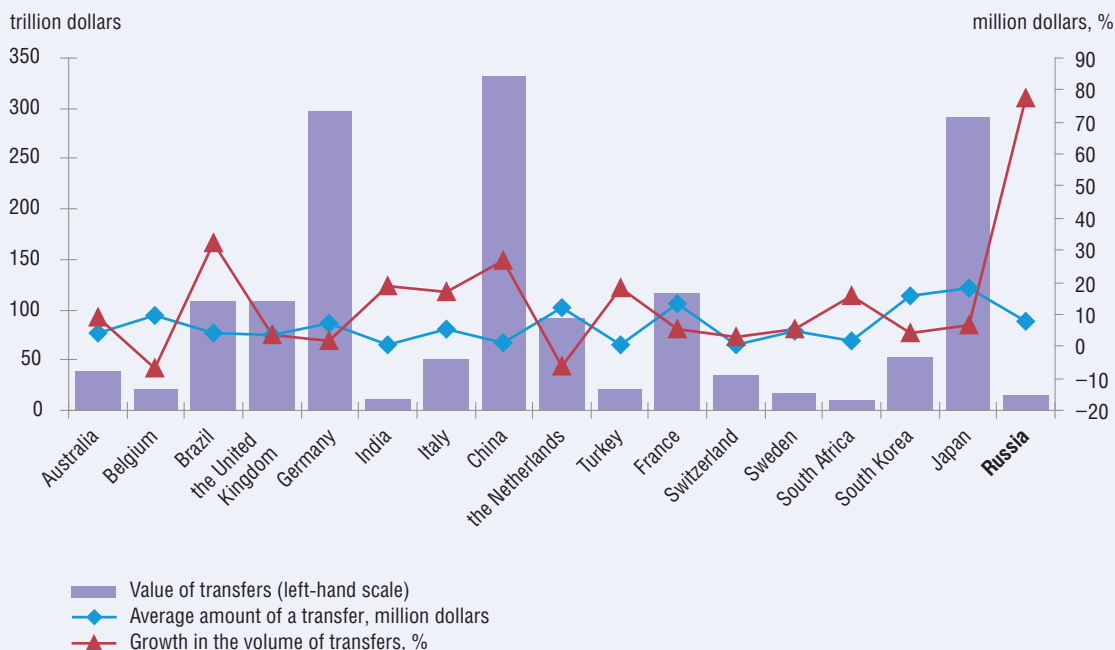
According to international statistics<sup>1</sup>, at the beginning of 2014 the number of participants in the BEPS system (2,800) was significantly higher than the average participation in the RTGS systems<sup>2</sup> of countries – participants in the Committee on Payments and Market Infrastructures of the Bank for International Settlements (CPMI). The BEPS system was surpassed only by such systems as HVPS (China) – 125.9 thousand participants and Fedwire (USA) – 6.9 thousand participants.

In 2013, the BEPS system processed 2.1 million transfers, which is less than any other RTGS system in the countries – CPMI participants. However, as regards the rates of growth in the volume of transfers, the BEPS was in the lead (77.0%). High growth rates were also recorded in the RTGS systems of the most dynamic economies, particularly of the BRICS countries: STR (Brazil) – 32.1%; HVPS (China) – 26.6%; RTGS (India) – 18.4%.

The value of transfers carried out through the BEPS system in 2013 totalled \$15.8 trillion, which was significantly below the average value of this indicator for the RTGS systems in the countries – CPMI participants, but was comparable with the data for such countries as Sweden (RIX – 17.2), Saudi Arabia (SARIE – 14.6), Singapore (MEPS – 13.3), India (RTGS – 12.5), South Africa (SAMOS – 9.1). Russia also significantly lagged behind other countries – CPMI participants in the value of the transfers to GDP ratio (7.6 times), leaving behind only India (6.5 times).

As regards the average amount of a transfer (\$7.5 million) the BEPS system was second only to Japan (BOJ-NET – \$18.0 million), South Korea (BOK-Wire+ – 15.4), France (TARGET2-BDF – 12.8), the Netherlands (TARGET2-NL – 11.5) and Belgium (TARGET2-BE – 9.3). For comparison: in the Fedwire system (USA) this indicator's value was \$5.3 million.

Volume and value of transfers in the RTGS systems of countries – CPMI participants in 2013



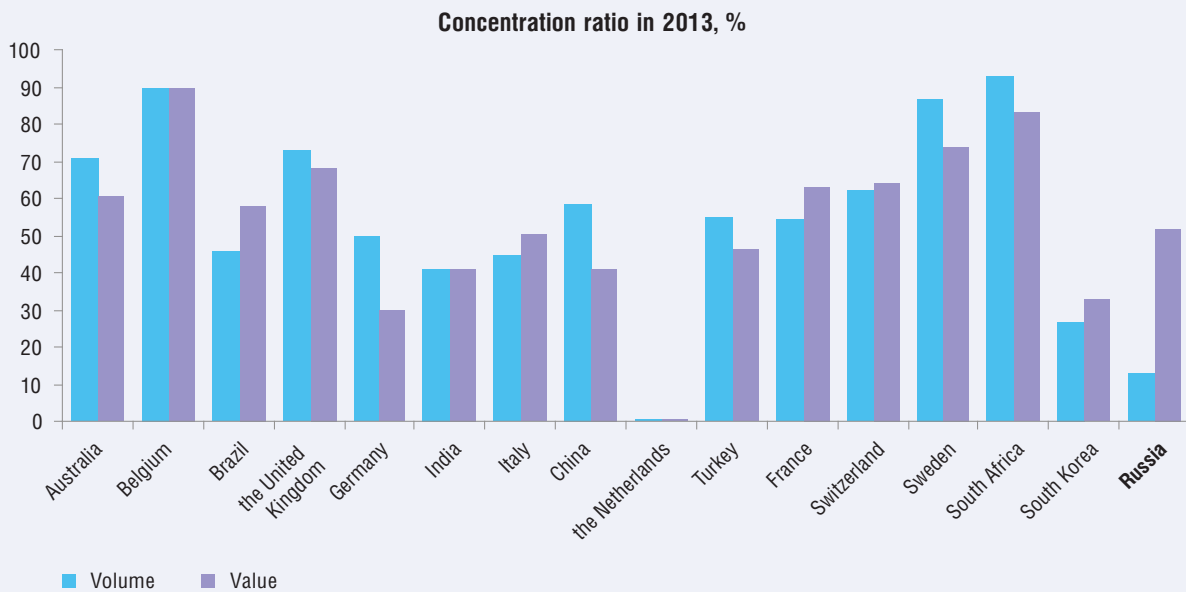
As for the rates of growth in the real value of transfers (5.8%), Russia was comparable with such countries as Switzerland (SIC – 5.9%) and Japan (4.4%). Systems of Brazil (STR – 32.2%), Turkey (EFT – 18.7%), the USA (Fedwire – 17.6%), China (HVPS – 13.3%) and Italy (TARGET2-BDI – 13.2%) were among the leaders



in this indicator. However, in many of the countries – CPMI participants the negative dynamics in the value of transfers in real terms were observed.

In 2013, the concentration ratio<sup>3</sup> in the volume of transfers in the BESP system amounted to 12.9%. This is the lowest indicator value among the RTGS systems in the countries – CPMI participants, with the exception of the Netherlands (TARGET2-NL – 0.7%), where the level of competition among the systems' participants was maximum.

As for the value of transfers, the concentration factor in the BESP system (51.6%) was comparable with that in other countries, but higher than in Germany (TARGET2-BBk – 29.5%), India (RTGS – 41.0%), Italy (TARGET2-BDI – 50.5%), China (HVPS – 41.0%), the Netherlands (TARGET2-NL – 0.7%), Turkey (EFT – 46.1%) and South Korea (BOK-Wire+ – 32.7%).



<sup>1</sup> See: CPMI publication 'Statistics on Payment, Clearing and Settlement Systems in the CPMI Countries' for 2013 ([www.bis.org/publ/cpss112.pdf](http://www.bis.org/publ/cpss112.pdf)).

<sup>2</sup> RTGS – real time gross settlement system.

<sup>3</sup> The market share of the five largest senders of payment messages in each payment system.

In 2013, high rates of growth in the volume of transfers executed in the BESP system (1.8 times) persisted, while the rate of growth in their value decreased significantly (from 100.7% in 2012 to 12.7% in 2013), mainly due to the reduction in the average amount of a transfer by 1.6 times (to 239.5 million rubles). The slowdown in growth of the value of such transfers is primarily due to a significant increase in the volume of transfers with an amount below 1 million rubles, whose share in the total volume of transfers executed in the BESP system increased significantly (4.1 times) as compared with 2012 against the backdrop of a significant reduction in the share of transfers exceeding 1 million rubles (2.0 times). In 2013, funds transfers with an amount below 1 million rubles, executed in the BESP system amounted to 57.8% of the total volume and 0.04% of the total

value, funds transfers with an amount in the range of 1 million rubles to 1 billion rubles – 40.4 and 17.3% respectively, funds transfers exceeding 1 billion rubles – 1.8 and 82.7%.

**Table I.1.** Structure of funds transfers in the BEPS system by amount

Amount of payment	Share in total volume of transfers, %		Share in total value of transfers, %	
	2012	2013	2012	2013
Up to 1 million rubles	14.2	57.8	<0.02	0.04
From 1 million rubles to 1 billion rubles	80.6	40.4	18.4	17.3
1 billion rubles and over	5.2	1.8	81.5	82.7

High rates of growth of funds transfers in the BEPS system were observed in all the federal districts. In three out of the eight federal districts the growth rate in the volume of transfers exceeded the nationwide figure: in the Central Federal District (1.9 times), Northwestern and Southern Federal Districts (more than 1.8 times). In other federal districts it varied from 1.4 times in the Urals Federal District to 1.7 times in the Siberian Federal District.

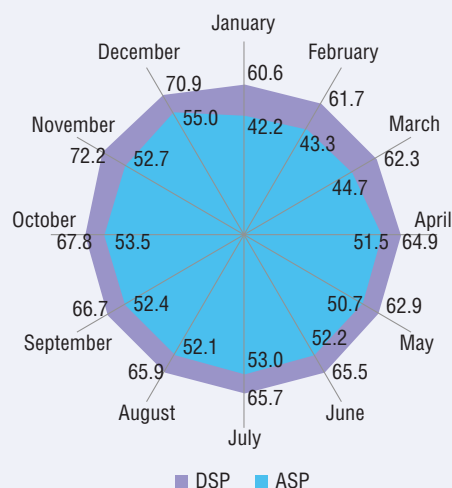
The largest growth in the value of transfers through the BEPS system was registered in the North Caucasus Federal District (1.6 times), the lowest – in the Central Federal District (12.1%). In the Siberian and Far Eastern Federal Districts the value of such transfers increased by more than a third, in the Northwestern and Southern Federal Districts – by more than a quarter, in the Volga and Urals Federal Districts – by 14.6 and 13.1% respectively.

The share of the ten largest participants in the BEPS system in the total volume of funds transfers executed through the BEPS system, decreased from 18.7% in 2012 to 17.1% in 2013, while their share in the total value of transfers, on the contrary, increased by 5.8 percentage points to reach 55.6%.

An important indicator characterising the development of the BEPS system is the share of active participants<sup>1</sup> in the total number of the BEPS system participants. In 2013, the largest value of this indicator for direct settlement participants was registered in November (72.2%), for associated settlement participants – in December (55.0%). Its lowest value was recorded in January 2013 (60.6% for DSP and 55.0% for ASP).

The values of service accessibility ratios of the BEPS system (the ability of the Bank of Russia regional branches to provide services stipulated by the Bank of Russia regulations to BEPS system participants on any business day at any time set by the rules of functioning of the BEPS system) in 2013 varied from 99.53 to 100%.

**Chart I.9.** Share of active participants in total number of participants in the BEPS system in 2013, by type of participant, %



<sup>1</sup> Active participants are understood as participants who made at least one transfer through the BEPS system during a month.

## I.2. Payment Systems, Operators of which were Registered by the Bank of Russia

In 2013, the Bank of Russia in accordance with Article 15 of the Federal Law No. 161-FZ continued the work started in 2012 to register organisations as payment system operators.

**According to Article 15 of the Federal Law No. 161-FZ, an organisation intending to become a payment system operator submits to the Bank of Russia a registration application. Upon the consideration of this application the Bank of Russia takes a decision to register the said organisation as a payment system operator or to refuse such registration.**

As a result of considering in 2013 the registration applications of organisations intending to become payment system operators, the Bank of Russia made a decision to register ten organisations as payment system operators, of which seven were credit institutions. The list of the largest payment systems, whose operators have been registered with the Bank of Russia in 2013, includes the Sberbank payment system and the VTB payment system.

Thus, as of end of 2013, twenty-nine organisations were registered as payment system operators, of which 19 were credit institutions, and the total number of payment systems (excluding the BRPS)<sup>2</sup> was 30.

In 2013, six payment systems were recognised as socially important, with one of them also recognised as systemically important. At the end of 2013, in the national payment system (excluding the BRPS) functioned:

- two systemically important payment systems – the NSD payment system and the Sberbank payment system;
- six socially important payment systems – MasterCard Payment System, the Visa Payment System, the CONTACT payment system, Payment System «Golden Crown», the VTB payment system and the Sberbank payment system.

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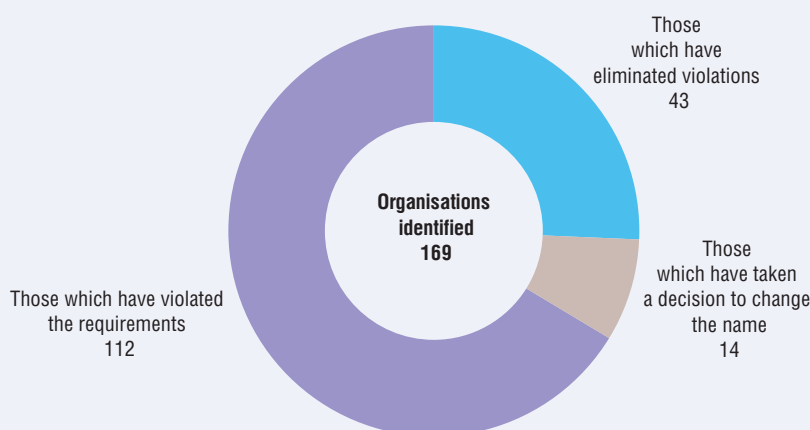
<sup>2</sup> The register of payment system operators is located in the section 'Payment System of the Russian Federation' on the Bank of Russia website (<http://www.cbr.ru/PSystem/?Prtd=rops>).

### Box 4. The Bank of Russia activities to exercise off-site supervision over the national payment system

In 2013, the Bank of Russia began identifying organisations violating the requirements of Part 15 of Article 15 of the Federal Law No. 161-FZ with regard to the illegal use of the words 'payment system' in their names. Control of names is important from the viewpoint of ensuring the rights of payment services consumers with regard to receiving accurate and complete information about the services provided.

Having analysed the information contained in the Single State Register of Legal Entities on 44 Russian regions in the fourth quarter of 2013, the Bank of Russia experts identified 169 organisations, which had illegally used in their names the words 'payment system' on the Internet, billboards, etc. After that, they were notified of the need to eliminate the violations.

#### Information on organisations which illegally used in their names the words 'payment system' (in the fourth quarter of 2013)



As a result, 43 organisations eliminated the violations, while 20 organisations changed their names (with changes to the Single State Register of Legal Entities – SSRLE), 2 organisations excluded the words 'payment system' from their names used on websites, in advertisements, etc. (SSRLE), 7 organisations terminated operations with appropriate entries made to the SSRLE, 10 organisations decided to terminate the activity, 4 organisations (previously liquidated) removed their sites from the Internet.

With regard to 112 organisations that violate the requirements concerning the use of the term 'payment system', the Bank of Russia regional branches continued oversight activities, namely: 70 organisations were sent letters about the need to make changes in their name; information about 26 organisations needed to be specified, of which the tax authorities had been informed; and materials about 16 organisations after taking all the possible measures were submitted to the Prosecutor General's Office of the Russian Federation.

In general, five areas of funds transfer services provided by the registered payment systems can be singled out:

- funds transfers without opening a bank account;
- funds transfers using payment cards;
- funds transfers on transactions made on on-floor trades;
- funds transfers of individuals using their bank accounts;
- funds transfers on the instructions of the participants for the interbank funds transfer.

The vast majority of payment systems in 2013 were characterised by activities in only one of the areas. Thus, 11 payment systems specialised only in funds transfers using payment

cards, 8 payment systems – in funds transfers without opening a bank account, 4 payment systems – in funds transfers on the instructions of the participants for the interbank funds transfer. Only three payment systems out of 29 operating<sup>3</sup> as of early 2014 executed funds transfers in several areas. The Sberbank payment system made transfers in all of the above areas. The CONTACT payment system effected funds transfers without opening a bank account and funds transfers using payment cards. Payment System «Golden Crown» offered its customers services in two areas: funds transfers using payment cards and funds transfers of individuals on their bank accounts.

**Table I.2.** Priority activities of payment systems which functioned in 2013<sup>4</sup>

No.	Name of the payment system	Funds transfers				
		using payment cards	without opening a bank account	by individuals on their bank accounts	on transactions made on on-floor trades	on instructions of participants for interbank funds transfers
1	CONTACT payment system	√	√	√		
2	UNISTREAM international funds transfer system		√			
3	Payment System NCC (National Credit Cards)	√				
4	Western Union payment system		√	√		
5	UNION CARD Payment System	√				
6	«ANELIK» payment system		√			
7	United Settlement System payment system	√				
8	Payment system «Regional payment system»		√			
9	HandyBank payment system	√				
10	BLIZKO payment system		√			
11	Visa Payment System	√				
12	Payment System «Golden Crown»	√	√			
13	PrivatMoney payment system		√			
14	National Settlement Depository Payment System				√	
15	Migom international funds transfer system		√			
16	Customs Card Payment System	√				
17	Payment system «International Money Transfers LEADER»		√			
18	MasterCard Payment System	√				
19	Universal Electronic Card Payment System	√				
20	Payment system «Insurance Payment System»					√
21	InterExpress payment system	√	√			
22	MultiService Payment System	√	√			
23	PRC payment system					√
24	VTB payment system					√
25	Sberbank payment system	√	√	√		√
26	AMB BANK payment system					√
27	American Express payment system	√				
28	UnionPay payment system	√				
29	REXPAY payment system	√				

<sup>3</sup> SMARTY payment system as of end of 2013 did not transfer funds as a result of the absence of participants acceding to its rules.

<sup>4</sup> See footnote 2.

Cross-border transfers of funds were executed by 12 payment systems: the CONTACT payment system, UNISTREAM international funds transfer system, Western Union payment system, «ANELIK» payment system, payment system «Regional payment system», BLIZKO payment system, PrivatMoney payment system, Migom international funds transfer system, Payment system «International Money Transfers LEADER», Payment System «Golden Crown», InterExpress payment system and VTB payment system.

#### Payment infrastructure service operators

During 2013, the number of payment infrastructure service operators increased from 33 to 49 organisations, mainly as a result of registration of new payment systems. As of end of 2013, thirty registered payment systems had 49 organisations acting as payment infrastructure service operators (27 credit institutions and 22 organisations other than credit institutions, of which 6 were foreign organisations), 26 of them served as settlement centers, 30 – as payment clearing centers, 33 – as operation centers of payment systems.

**Table I.3.** Payment systems' infrastructure organizations as of end of 2013

No.	Name of organisation	Type of organisation	Russian/foreign	Payment system operator	Payment infrastructure entities		
					settlement center	payment clearing center	operation center
1	RUSSLAVBANK (CJSC)	CI	R	CONTACT payment system			
2	OJSC VTB Bank	CI	R	VTB payment system	VTB payment system, Western Union payment system, CONTACT payment system, Visa Payment System, MultiService Payment System	VTB payment system	VTB payment system
3	OJSC CB UNISTREAM	CI	R	UNISTREAM international funds transfer system			
4	National Credit Cards CJSC	NCI	R	Payment System NCC (National Credit Cards)		Payment System NCC (National Credit Cards)	
5	CB EVROFINANCE MOSNARBANK OJSC	CI	R		Payment System NCC (National Credit Cards), UNION CARD payment system		
6	OJSC «NCO «Western Union DP Vostok»	CI	R	Western Union payment system		Western Union payment system	
7	NCO «United Settlement System» (OJSC)	CI	R	United Settlement System payment system	United Settlement System payment system, Western Union payment system		
8	UNION CARD Processing Company CJSC	NCI	R	UNION CARD Payment System		UNION CARD Payment System	

No.	Name of organisation	Type of organisation	Russian/foreign	Payment system operator	Payment infrastructure entities		
					settlement center	payment clearing center	operation center
9	Commercial Bank «Anelik RU» (LLC)	CI	R	«ANELIK» payment system			
10	KOKK CJSC	NCI	R			United Settlement System payment system	
11	SwitchMaster.RU LLC	NCI	R			United Settlement System payment system	
12	Commercial Bank Tula Settlement Center (OJSC)	CI	R	Payment system «Regional payment system»			
13	Municipal Settlement Center LLC	NCI	R				Payment system «Regional Payment System»
14	HandySolutions CJSC	NCI	R	HandyBank payment system		HandyBank payment system	
15	New Symbol Bank (CJSC)	CI	R		HandyBank payment system		
16	Commercial Bank Sviaz-Bank OJSC	CI	R	BLIZKO payment system			
17	COINSTAR EURASIA Limited (Joint-Stock Limited Liability Company)	NCI	FF				BLIZKO payment system
18	Financial Service Bureau LLC	NCI	F				BLIZKO payment system
19	Visa Payment System LLC	NCI	R	Visa Payment System		Visa Payment System	
20	Visa International Service Association representative office	NCI	F				Visa Payment System
21	Non-bank Settlement Credit Organisation «Payment Center» (LLC)	CI	R	Payment System «Golden Crown»			
22	Golden Crown CJSC	NCI	R			Payment System «Golden Crown»	
23	Moscow Commercial Bank MOSCOMPRIVATBANK CJSC	CI	R	PrivatMoney payment system			
24	Non-banking credit institution CJSC National Settlement Depository	CI	R	National Settlement Depository Payment System			
25	NCO Migom CJSC	CI	R	Migom international funds transfer system SMARTY payment system			
26	Commercial Bank EUROTRUST (CJSC)	CI	R		Migom international funds transfer system		
27	SMARTY LLC	NCI	R				SMARTY payment system
28	Customs Card LLC	NCI	R	Customs Card Payment System		Customs Card Payment System	
29	MKS LLC	CI	R		Customs Card Payment System		
30	NCO CJSC «LEADER»	CI	R	Payment system «International Money Transfers LEADER»			
31	MasterCard LLC	NCI	R	MasterCard Payment System		MasterCard Payment System	
32	MasterCard Europe	NCI	F				MasterCard Payment System

No.	Name of organisation	Type of organisation	Russian/foreign	Payment system operator	Payment infrastructure entities		
					settlement center	payment clearing center	operation center
33	Sberbank of Russia OJSC	CI	R	Sberbank payment system	MasterCard Payment System, Universal Electronic Card Payment System (UEC PS), Sberbank payment system	Sberbank payment system	
34	UEC OJSC	NCI	R	Universal Electronic Card Payment System (UEC PS)		Universal Electronic Card Payment System (UEC PS)	
35	IPS LLC	NCI	R	Payment system «Insurance Payment System»		Payment system «Insurance Payment System»	
36	ALFA-BANK OJSC	CI	R		Payment system «Insurance Payment System», MultiService Payment System		
37	SCB INTERCOOPBANK OJSC	CI	R	InterExpress payment system			
38	MultiService Payment System LLC	NCI	R	MultiService Payment System		MultiService Payment System	
39	Vozrozhdenie Bank (OJSC)	CI	R		MultiService Payment System		
40	NOTA-Bank (OJSC)	CI	R		MultiService Payment System		
41	PRC CJSC	CI	R	PRC payment system			
42	OJSC AMB BANK	CI	R	AMB BANK payment system			
43	American Express Bank LLC	CI	R	American Express payment system			
44	American Express IS Ltd. CJSC	NCI	F				American Express payment system
45	UNIONPAY LLC	NCI	R	UnionPay payment system			
46	JSCB BANK OF CHINA (ELUOSI)	CI	R		UnionPay payment system		
47	UnionPay International Co., Ltd	NCI	F			UnionPay payment system	
48	CB «Geobank» (LLC)	CI	R	REXPAY payment system			
49	RUCARD LLC	NCI	R			REXPAY payment system	

Note. CI – credit institution; NCI – non-credit institution; R – Russian organisation; F – foreign organisation.

### Settlement centers of payment systems

As of end of 2013, 26 credit institutions acting as payment systems registered by the Bank of Russia.

In most cases, credit institutions fulfilling the functions of payment systems' settlement centers were settlement centers of one payment system. Credit institutions functioning as settlement centers for several payment systems included:

- OJSC VTB Bank – the settlement center of five payment systems: VTB payment system, Western Union payment sys-



tem, Visa Payment System, CONTACT payment system, and MultiService Payment System;

- Sberbank of Russia OJSC – the settlement center of three payment systems: Sberbank payment system, MasterCard Payment System, and Universal Electronic Card Payment System.

- CB EVROFINANCE MOSNARBANK OJSC – the settlement center of two payment systems: Payment System NCC (National Credit Cards) and UNION CARD Payment System;

- NCO «United Settlement System» (OJSC) – the settlement center of two payment systems: Western Union payment system and United Settlement System payment system;

- ALFA-BANK OJSC – the settlement center of two payment systems: payment system «Insurance payment system» and MultiService Payment System.

### **Payment clearing centers of payment systems**

As of end of 2013, 30 payment clearing centers operated in Russia: 16 credit institutions and 14 organisations other than credit institutions (including two foreign organisations<sup>5</sup>).

In all but one payment systems payment clearing services were performed by only one payment clearing center. The exception was the United Settlement System payment system, in which the function of the payment clearing center is performed by two organisations other than credit institutions – KOKK CJSC and SwitchMaster.RU LLC.

### **Operation centers of payment systems**

Out of the 33 operation centers functioning in Russia as of end of 2013, 14 were credit institutions and 19 were organisations other than credit institutions (including 6 foreign organisations).

The operation services were performed by several operation centers in two payment systems: in the United Settlement System payment system – by two organisations other than credit institutions (KOKK CJSC and SwitchMaster.RU LLC), in the BLIZKO payment system – by three COINSTAR EURASIA Limited (Joint-Stock Limited Liability Company), Financial Service Bureau LLC, and Commercial Bank Sviaz-Bank OJSC). Only one operation center functioned in all other payment systems.

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<sup>5</sup> Pursuant to Part 11 of Article 16, and Part 7 of Article 38 of the Federal Law No. 161-FZ, a foreign organisation may act as a payment clearing center until July 1, 2014. In accordance with the Federal Law No. 112-FZ, dated May 5, 2014, from July 1, 2016, when transferring funds within a payment system, the operators of funds transfers located on the territory of the Russian Federation shall involve payment infrastructure services operators, which are located and carry out all the functions on the territory of the Russian Federation, except for the cases of cross-border transfers of funds.

### Funds transfers in payment systems

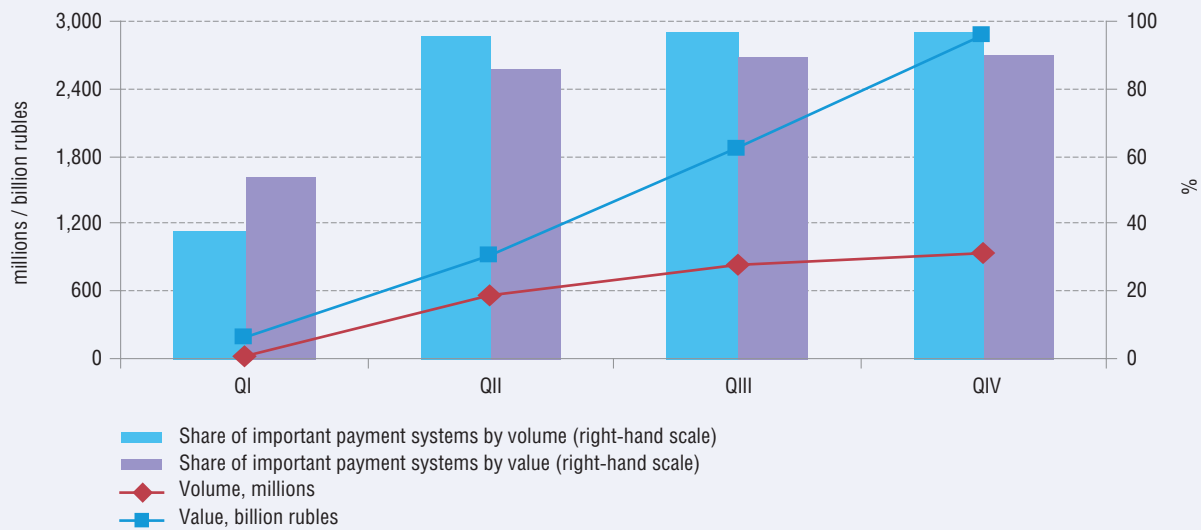
As of end of 2013, according to the Bank of Russia reporting form 'Information on Payment Systems of the Payment System Operator', the payment systems registered by the Bank of Russia included from 3 to 700 participants.

The largest number of participants (160 to 700) is characteristic of important payment systems (7 out of 11 payment systems having more than 160 participants).

**Table I.4.** Number of payment system participants as of end of 2013

No.	Registration No. of the payment system operator	Name of the payment system	Number of participants			Importance of the payment system
			total	direct participants	associated participants	
Payment systems including from 160 to 700 participants						
1	0014	National Settlement Depository Payment System	700	700	0	systemically
2	0001	CONTACT payment system	645	645	0	socially
3	0025	VTB payment system	551	551	0	socially
4	0019	MasterCard Payment System	514	77	437	socially
5	0012	Payment System «Golden Crown»	468	468	0	socially
6	0011	Visa Payment System	405	74	331	socially
7	0004	Western Union payment system	377	360	17	
8	0006	«ANELIK» payment system	306	191	115	
9	0018	Payment System «International Money Transfers LEADER»	217	217	0	
10	0015	Migom international funds transfer system	171	104	67	
11	0026	Sberbank payment system	162	162	0	systemically, socially
Payment systems including from 3 to 160 participants						
1	0002	UNISTREAM international funds transfer system	156	156	0	
2	0007	United Settlement System payment system	156	131	25	
3	0009	HandyBank payment system	141	141	0	
4	0021	Payment system «Insurance Payment System»	127	127	0	
5	0017	Customs Card Payment System	95	95	0	
6	0010	BLIZKO payment system	65	65	0	
7	0022	InterExpress payment system	35	35	0	
8	0005	UNION CARD payment system	26	26	0	
9	0023	Multiservice Payment System	23	23	0	
10	0003	Payment system NCC (National Credit Cards)	21	20	1	
11	0024	PRC payment system	20	20	0	
12	0027	AMB BANK payment system	8	8	0	
13	0020	Universal Electronic Card Payment System	7	7	0	
14	0008	Payment system «Regional Payment System»	4	4	0	
15	0013	PrivatMoney payment system	3	3	0	
16	0016	SMARTY payment system	3	3	0	
17	0028	American Express payment system	3	3	0	
18	0029	UnionPay payment system	0	0	0	

**Chart I.10.** Instructions for funds transfers executed within payment systems in 2013<sup>6</sup>



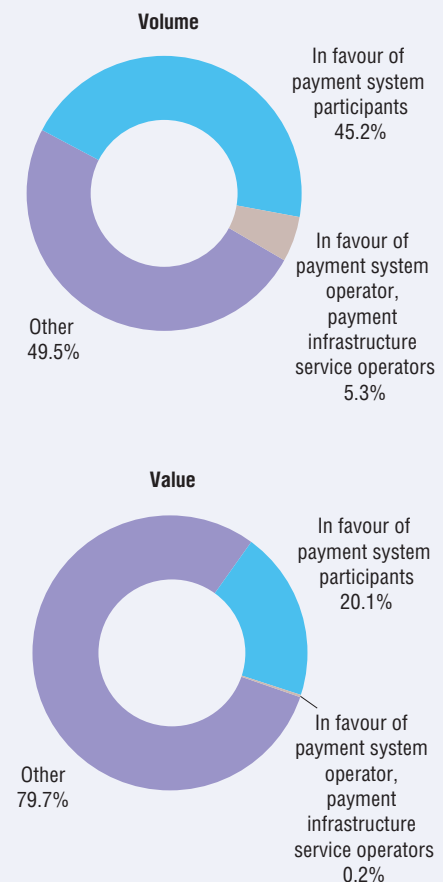
According to the statistical reporting data, some payment systems did not actually perform their participants' funds transfers (UnionPay payment system as a result of the absence of participants, the PRC payment system and SMARTY payment system as a result of the absence of participants' instructions for funds transfer).

In 2013, of all the transfers made through the payment systems (excluding the NSD payment system) 95.9% in volume and 88.2% in value of transfers were carried out through the important payment systems<sup>7</sup>.

During 2013, the quarterly volume and value of funds transfers effected within the payment systems were continuously increasing, which was due to the two factors: an increase in the number of payment systems, whose operators were registered during this period, and an increase in the value of transactions within the payment systems. The increased number of important payment systems (from one at the beginning of the year to seven at the end) explains the growth of their share in the total volume and value of funds transfers effected within the payment systems.

In 2013, 90.0% of the volume and 96.9% of the value of debits from the bank accounts of participants in the registered payment systems opened with settlement centers of payment systems were executed by important payment systems (excluding the NSD payment system). Almost half of the debits in the volume and one-fifth in the value were made in favour of payment system participants.

**Chart I.11.** Debiting bank accounts of payment system participants opened with settlement centers



<sup>6</sup> According to the statistical reporting form 0403201 'Information on Payment Systems of the Payment System Operator'.

<sup>7</sup> See footnote 6.

## I.3. Payment System of a Non-bank Credit Institution National Settlement Depository

### I.3.1. General information

A non-bank credit institution closed joint-stock company National Settlement Depository (NSD) was registered by the Bank of Russia on December 26, 2012 as the operator of the NSD payment system (hereinafter, PS NSD).

The PS NSD executes cash settlements on transactions made on on-floor trades conducted by the OJSC Moscow Exchange and those concluded in the OTC market. Under an agreement with the Bank of Russia, the PS NSD makes funds transfers on the Bank of Russia open market operations, repo transactions with the Bank of Russia, transactions in the foreign exchange market, as well as refinancing of credit institutions and deposit operations of the Bank of Russia<sup>8</sup>. In this regard, the PS NSD is recognised as a systemically important payment system according to paragraphs 2 and 3 of Clause 1 of Article 22 of the Federal Law No. 161-FZ.

#### **Participation in the payment system**

Organisations defined as participants in the payment system by Article 21 of the Federal Law No. 161-FZ, including funds transfer operators, trade organisers, clearing organisations provided that these organisations satisfy the eligibility criteria for participation in the PS NSD established by the rules of the PS NSD, may become participants in the PS NSD. Only direct participation is provided for in the PS NSD.

#### **Funds transfers effected within the payment system**

The PS NSD effects funds transfers in Russian rubles and in foreign currency.

#### **Clearing and settlements in the payment system**

Clearing and settlements in the PS NSD are carried out in the real time mode with the payment clearing position being defined on a gross basis. Funds transfers in the PS NSD are executed within the balances of participants' accounts PS NSD opened with the PS NSD settlement center.

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<sup>8</sup> For more information on the Bank of Russia operations, see the Bank of Russia's website at: [www.cbr.ru/DKP](http://www.cbr.ru/DKP).

### **Risk management in the payment system**

The PS NSD is a part of the post-trade infrastructure of OJSC MICEX-RTS Moscow Exchange (hereinafter, the Moscow Exchange). Organisations comprising the post-trade infrastructure influence each other, including the redistribution of risks they are exposed to in their activities.

The credit risk and liquidity risk of clearing participants, who are mostly the PS NSD participants, are associated with their transactions in the organised market and are not transferred to the PS NSD, but for the vast majority of transactions they are minimised by the central counterparty, the functions of which in the post-trade infrastructure of the Moscow Exchange are performed by the Joint-Stock Commercial Bank National Clearing Centre (closed joint-stock company). Similar risks of clearing participants arising in connection with their OTC transactions are minimised through the use of the 'delivery versus payment' mechanism by the NSD clearing organisation.

Thus, the organisational structure of the PS NSD combined with the described above specific features of the risk redistribution among the organisations of the Moscow Exchange post-trade infrastructure allows to significantly reduce the risks of the PS NSD business continuity failure through minimising the credit risk and liquidity risk of the PS NSD participants. In this regard, within the framework of the PS NSD there is a relatively small set of liquidity management instruments. It includes organisation, maintenance, and provision to its participants an opportunity of managing the queue of orders which were not executed due to the lack of funds and the ability to revoke such orders and re-initiate them. The PS NSD does not provide for the establishment of a guarantee fund, as well as for the lending to participants. No lending to participants for the purpose of fulfilling the funds transfer orders allow to minimize the credit risk of the PS NSD settlement center.

To manage risks in the PS NSD, a collegial body – the PS NSD Risk Management Committee – has been created. It consists of representatives of NSD and the PS NSD participants responsible for risk management. The Risk Management Department is responsible for risk management in NSD.

### **Payment system oversight**

The status of a systemically important payment system involves the oversight by the Bank of Russia of the PS NSD operation in accordance with paragraph 2 of Article 35 of the Federal Law No. 161-FZ. The Bank of Russia oversight activities of payment systems, including the important payment systems, are stated by Chapter 5 of the Federal Law No. 161-FZ and the Bank of Russia Regulation No. 380-P, dated May 31, 2012, 'On the Procedure of Oversight in the National Payment System'.

As part of its oversight activities the Bank of Russia in 2014 will assess the extent to which the activities of the PS NSD operator, operators of the PS NSD payment infrastructure services and the PS NSD operation comply with the Bank of Russia recommendations<sup>9</sup>.

The assessment will be carried out in accordance with the methodology for assessing the compliance of operators of systemically important payment systems, operators of payment infrastructure services involved by the former and related systemically important payment systems with the Bank of Russia recommendations<sup>10</sup>.

After the assessment it is planned to publish its generalised results in sources that are available for a wide range of interested parties.

### Box 5. Principles for financial market infrastructures

Financial market infrastructures, in particular the systemically important payment systems, central counterparties, central depositories, trade repositories play a key role in the operation of local financial markets and the global financial market as a whole. In this regard, facilitation of their continued functioning, particularly in the context of economic turbulence, is the most important task of the regulators at both the national and international levels.

CPMI, as one of the leading international organisations regulating the activities of financial market infrastructures, together with the International Organisation of Securities Commissions (IOSCO) and central banks – CPMI members, prepared and published in April 2012 the document ‘Principles for Financial Market Infrastructures’<sup>1</sup>.

The document contains 24 principles (hereinafter, the PFMI) summarising the best international practices in terms of ensuring financial market infrastructures operation stability, mitigating the risks, as well as minimising the negative consequences in case of termination of their operation. The document was developed on the basis of previously prepared and published CPMI standards and recommendations, including the ‘Core Principles for Systemically Important Payment Systems’, ‘Recommendations for Securities Settlement Systems’ and ‘Recommendations for Central Counterparties’. These standards and recommendations were reviewed and, if necessary, revised or supplemented with new provisions.

The Bank of Russia, being a CPMI participant, assists the implementation of the PFMI in the Russian Federation and their use by important payment systems operating in Russia. To this end, the Bank of Russia published an unofficial translation of the PFMI into Russian and issued recommendations on the application of certain principles taking into account the specifics of the Russian Federation legislation.

The Bank of Russia has scheduled an assessment of important payment systems compliance with the PFMI applicable to systemically important payment systems. Based on the results of these assessments the Bank

<sup>9</sup> The Bank of Russia Letter No. 94-T, dated June 29, 2012, ‘On the Document of the Committee on Payment and Settlement Systems ‘Principles for Financial Market Infrastructures’’, which contains an unofficial translation of the document of the Committee on Payment and Settlement Systems of the Bank for International Settlements and the International Organisation of Securities Commissions ‘Principles for Financial Market Infrastructures’.

<sup>10</sup> Approved by the Bank of Russia Order No. OD-607, dated 9 April 2014, and recommended to payment systems operators for making an assessment by the Bank of Russia Letter No. 59-T, dated 14 April 2014, ‘On Compliance with the Bank of Russia Recommendations’.

of Russia may put forward suggestions to change the activities of the assessed important payment systems in order to achieve their fullest compliance with the PFMI.

CPMI and IOSCO initiated the procedure of monitoring the implementation of the PFMI in the jurisdictions of CPMI member-countries (hereinafter, the monitoring).

The monitoring includes three stages. The first stage includes the assessment of the completeness of the procedure for adopting legislative, regulatory and (or) other acts which allow the PFMI to be implemented by both financial market infrastructures and regulators. The second stage is the assessment of compliance of legislative, regulatory and (or) other acts for implementing the PFMI with the PFMI. The third stage makes the assessment of the extent to which the PFMI is applied by the financial market infrastructures.

The first stage of the monitoring has been carried out by a CPMI and IOSCO joint working group since March 2013 up till now and includes several successive iterations, so as to reflect the dynamics of implementing the PFMI within each jurisdiction.

The initial round of the first stage of the monitoring was carried out from March to August 2013 and covered 27 jurisdictions of the Financial Stability Board, and (or) CPMI, and (or) IOSCO<sup>2</sup>. As part of the initial round of the first stage of the monitoring, regulators of the relevant financial market infrastructures filled in the questionnaire prepared by CPMI and IOSCO specifying, in particular, the legislative, regulatory and (or) other documents, which implement the PFMI, and presented their assessments of the PFMI implementation for each type of financial market infrastructures using a four-mark grading system. Based on the results of the initial round of the first stage, CPMI and IOSCO published a report containing a summary of the monitoring data across all the jurisdictions as of the end of March 2013<sup>3</sup>.

**Within the framework of the initial round, the regulatory bodies presented the following evaluations of the PFMI implementation in the Russian Federation. Regarding implementation of the principles: systemically important payment systems – 3, central counterparties – 2, central depositories / settlement securities systems – 2, trade repositories – 1.**

**Regarding the implementation of the responsibilities: systemically important payment systems – 4, central counterparties – 4, central depositories / settlement systems for securities – 4, trade repositories – 1.**

The second round of the first stage was conducted during the period from December 2013 to May 2014. Indonesia was included to the list of jurisdictions that held this stage of the monitoring. According to the results of the second round of the first stage of the monitoring, the assessments of the PFMI implementation in the Russian Federation remained unchanged. Based on the results of the second round of the first stage a report was also published which contains a summary of the monitoring results across all the jurisdictions, updated as of January 11, 2014<sup>4</sup>.

<sup>1</sup> The English version of the report, see on the website of the Bank for International Settlements at: [www.bis.org/publ/cpss101a.pdf](http://www.bis.org/publ/cpss101a.pdf).

<sup>2</sup> The monitoring covered the following jurisdictions: Argentina, Australia, Belgium, Brazil, Canada, Chile, China, European Union, France, Germany, Hong Kong, India, Italy, Japan, Korea, Mexico, the Netherlands, the Russian Federation, Saudi Arabia, Singapore, South Africa, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the USA.

<sup>3</sup> The English version of the report, see on the website of the Bank for International Settlements at: [www.bis.org/publ/cpss111.pdf](http://www.bis.org/publ/cpss111.pdf)

<sup>4</sup> The English version of the report, see on the website of the Bank for International Settlements at: [www.bis.org/publ/cpss117.pdf](http://www.bis.org/publ/cpss117.pdf).

### Interaction with other payment systems

As of the end of 2013, no cooperation agreements were concluded between the PS NSD and other payment systems. However, the PS NSD settlement center (NSD), being a member of the BRPS, may, at the request of PS NSD participants execute funds transfers through the BRPS. In turn, the BRPS



participants may also execute funds transfers to the PS NSD participants through the BRPS with respective money amounts credited by the PS NSD settlement center to the bank accounts of the PS NSD participants opened with it.

### Measures for the payment system development

Because of the NSD registration as a payment system operator in 2013 within the framework of the PS NSD measures were primarily initiated and implemented which were related to the organisation of internal cooperation between structural units of the NSD, performing the functions of operators of the PS NSD payment services infrastructure. They were also related to the fulfillment by the PS NSD operator and operators of the PS NSD payment services infrastructure of the relevant requirements of the Federal Law No. 161-FZ and the Bank of Russia regulations issued pursuant thereto.

Throughout 2013, steps were also taken to bring the PS NSD rules in accordance with the requirements for important payment systems. In April 2013, the PS NSD internal documents were approved which regulated the activities of the Risk Management Committee in the PS NSD. Risk Management Committee began its work in late May of the same year.

## I.3.2. Payment system indicators

### Information about the payment system participants

The total number of the PS NSD participants as of end of 2013 equalled 690 organisations, including 112 credit institutions, 368 credit institutions, which are professional participants in the securities market<sup>11</sup>, 207 organisations, which are professional participants in the securities market, and three other organisations. As of end of 2013, there were no foreign banks and international financial institutions among the PS NSD participants.

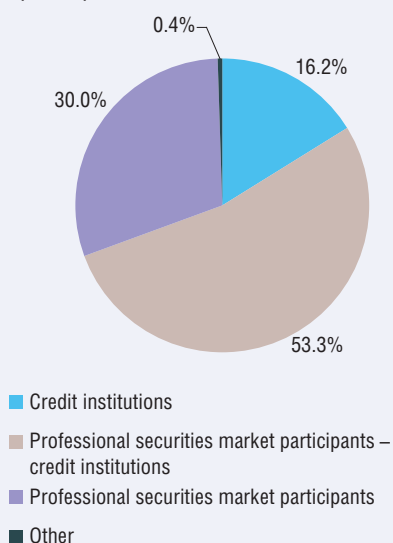
As of end of 2013, the PS NSD participants opened 5.3 thousand bank accounts with the PS NSD settlement center, of which 74.8% – in Russian rubles and 25.2% – in foreign currency.

### Information about transfers made through the payment system

In 2013, within the PS NSD 741.5 thousand funds transfers in Russian rubles were carried out to the amount of 106 trillion rubles.

Funds transfers on the transactions made in the on-floor market dominated by both volume and value (94.0 and 89.3% respectively) and most of them were transfers on the transac-

**Chart I.12.** Structure of PS NSD participants



<sup>11</sup> In accordance with the definition given in Article 2 of the Federal Law No. 39-FZ, dated April 22, 1996, 'On the Securities Market'.



tions made in the stock market and other transfers from bank trading accounts of the stock market (627.5 thousand transfers totalling 86.7 trillion rubles).

In addition, within the PS NSD 8.4 thousand (1.1%) funds transfers were made from bank trading accounts of the OTC market participants totalling 5.4 trillion rubles (5.1%), of which 6.7 thousand transfers totalling 3.4 trillion rubles were transfers on OTC transactions made on the 'delivery versus payment' basis.

Other funds transfers (4.9% in volume and 5.5% in value) turned to be comparable with funds transfers from bank trading accounts of the OTC market participants in their total value, but were significantly superior in the total volume. The average amount of such transfer was 160 million rubles. Such transfers are made between bank accounts of PS NSD participants and are mostly of auxiliary nature, for example, to provide liquidity to bank trading accounts of PS NSD participants in the stock market or the OTC market.

Funds transfers in foreign currency within the PS NSD made significantly less in both volume and value. Thus, in 2013, 7.1 thousand transfers to the amount equivalent to 0.5 trillion rubles<sup>12</sup> were made through the PS NSD, which was 0.9 and 0.5% of the total volume and value of the funds transfers effected in the PS NSD<sup>13</sup>.

Funds transfers from bank accounts of PS NSD participants were also made to bank accounts of NSD customers, bank accounts of other organisations of residents and non-residents of the Russian Federation, as well as vice versa – from bank accounts of these institutions to bank accounts of PS NSD participants (hereinafter, external funds transfers). For example, 567.6 thousand external funds transfers amounting to 408 trillion rubles were executed by the PS NSD participants and to the accounts of the PS NSD participants, which was 3.8 times more than the total amount of funds transfers carried out in the PS NSD.

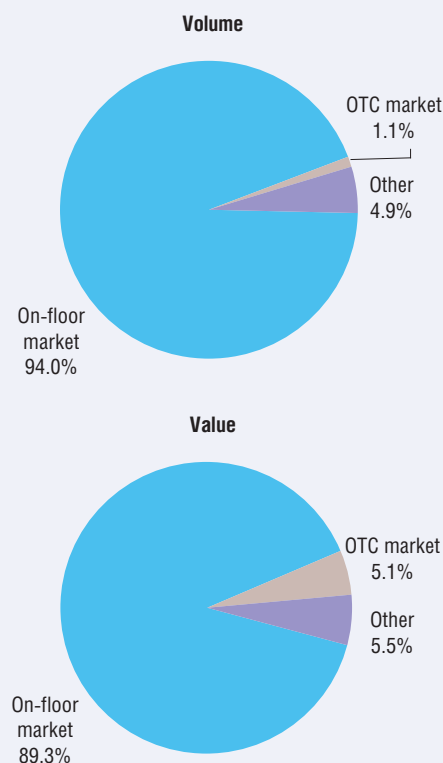
The average amount of an external funds transfer was 700 million rubles, which was 5 times more than the average amount of the funds transfer executed within the PS NSD (140 million rubles).

### Information on the payment system market share

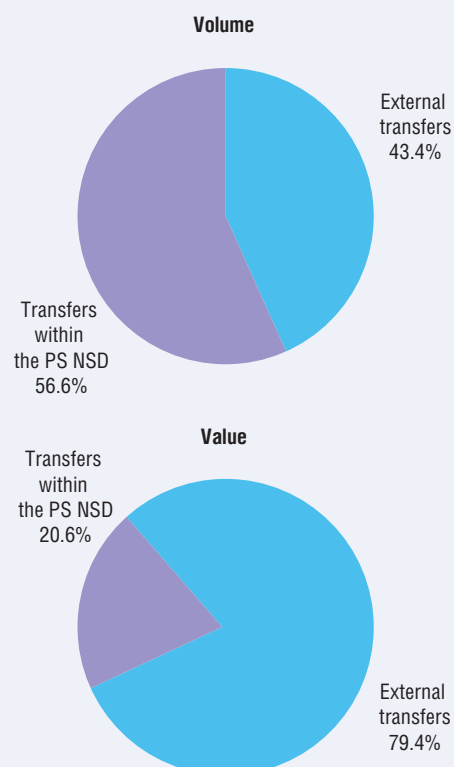
In 2013, the PS NSD was the only payment system in the market sector of payment systems which effected funds transfers on the transactions made in the on-floor market and in the OTC market.

In 2013, two payment systems – the PS NSD and the BRPS operated in the sector of systemically important payment sys-

**Chart I.13.** Structure of funds transfers within the PS NSD



**Chart I.14.** Ratio of external transfers and transfers within the PS NSD



<sup>12</sup> The total value of transactions in foreign currency was calculated at the Bank of Russia exchange rate effective as of the transfer date.

<sup>13</sup> Given the insignificant volume and value of such transactions, all the performance indicators of the PS NSD were calculated only for funds transfers carried out in Russian rubles.

tems in the Russian Federation. As many as 1.3 billion transfers worth 1,225 trillion rubles were executed in the BRPS. Thus, the market shares of the PS NSD and the BRPS in the segment of systemically important payment systems, calculated by the total value of executed funds transfers amounted to 8.0 and 92.0% respectively.

#### **Information on interaction with other payment systems**

In 2013, there were 160,900 operations of withdrawing funds from bank accounts of PS NSD participants opened with the PS NSD settlement center and 252.3 thousand operations of crediting funds to bank accounts of PS NSD participants to a total amount of 385 trillion rubles were made through the BRPS.

#### **The level of funds transfer concentration in the payment system**

The level of funds transfer concentration defined as the share of the five largest PS NSD participants in the total value of transfers<sup>14</sup> was 22.7% in 2013. This shows the PS NSD low exposure to the systemic risk as a result of the default of one of the largest participants, because, according to the international practice<sup>15</sup>, the realization of systemic risk in the payment system is considered to be realistic when this indicator exceeds 80%.

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<sup>14</sup> The calculation of the degree of concentration has been carried out on the basis of the total amount of money write-offs of PS NSD participants to bank accounts of other PS NSD participants, to bank accounts of NSD customers, as well as to bank accounts of organisations opened with other credit institutions.

<sup>15</sup> See the document of the European Central Bank 'Oversight Standards for Euro Retail Payment Systems' ([www.ecb.europa.eu/pub/pdf/other/retailpoversightstandardsen.pdf](http://www.ecb.europa.eu/pub/pdf/other/retailpoversightstandardsen.pdf)).

## CHAPTER II. FUNDS TRANSFER OPERATORS

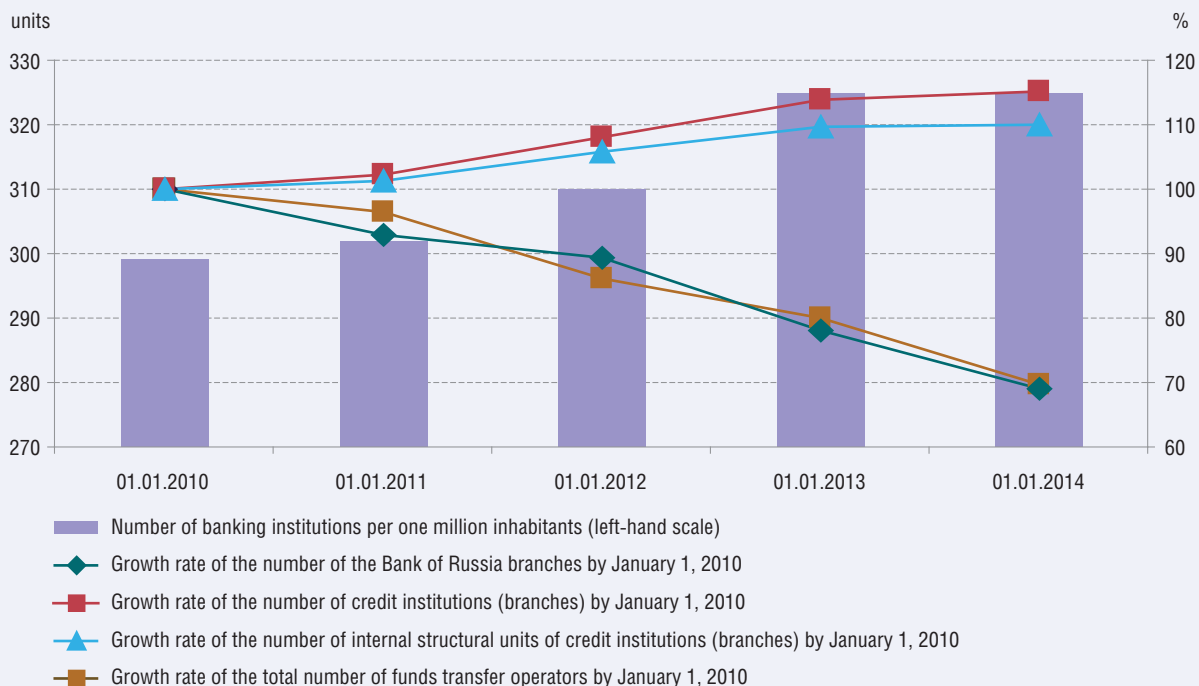
### II.1. Payment Infrastructure of Funds Transfer Operators

In 2013, the number of funds transfer operators increased by 0.3% and amounted to 46.6 thousand as of end of 2013: 439 of the Bank of Russia branches and about 46.2 thousand credit institutions and their branches and internal structural units<sup>16</sup>.

In 2013, the number of credit institutions continued to decline (from 956 as of end of 2012 to 923 as of end of 2013) and so did their branches (by 14.6% to 2,005). This indicator was the highest in the Volga Federal District (21.3%) and the Far Eastern Federal District (18.1%). This trend is largely linked with the ongoing optimisation of regional networks carried out by large multi-branch banks.

Among the internal structural units of credit institutions as of end of 2013, additional offices accounted for the major share (56.6%). The share of operations offices, cash operation departments outside cash settlement centers, and credit and cash

**Chart II.1.** Selected indicators of the development of payment infrastructure of funds transfer operators in 2010–2013



<sup>16</sup> Additional offices, operations offices, credit and cash offices, and cash operation departments outside cash settlement centers.

offices in 2013 was lower (19.5; 18.1 and 5.7% respectively) than in the previous year. The highest rates of growth were typical of credit and cash office and operations offices (14.0 and 13.3% respectively); the number of additional offices increased by 4.9%, while the number of cash operation departments outside cash settlement centers continued to decrease (by 19.0%).

Changes in the number of credit and cash offices differed significantly by federal district. For example, in the Moscow Region their number decreased by 31.0%, while in the Southern Federal District it increased by 41.2%. In other federal districts, this figure ranged from 2.8% in the Far Eastern Federal District to 29.2% in the North Caucasus Federal District. The number of operations offices of credit institutions grew in all the federal districts and ranged from 8.7% in the North Caucasus Federal District to 17.2% in the Volga Federal District.

As of end of 2013, there were in general 325 banking institutions, providing payment services<sup>17</sup>, per 1 million Russian residents (as of end of 2013, 320 institutions). The highest growth rate of this index was observed in the Southern Federal District (by 4.9%), while in the Central, Volga and North Caucasus Federal Districts the number of these institutions slightly decreased. The highest level of the bank offices network availability was typical of the Moscow Region (379 banking institutions per 1 million people) and the lowest – of the North Caucasus Federal District (139).

The development of e-banking services<sup>18</sup> providing credit institution customers with broad opportunities of managing their bank accounts and obtaining a range of services without their personal presence at a bank branch is the main way to increase the territorial availability of banking services taking into account vast territories of Russia.

**According to a study conducted by the National Agency for Financial Studies (NAFS) together with Online Market Intelligence<sup>19</sup>, in 2013, two-thirds of Internet users had an experience of getting banking services remotely with 40% of respondents submitting their applications via the website of a credit institution, 28% – via the online service ‘personal cabinet with the bank’, and 25% – via the bank call center.**

Currently, almost all Russian credit institutions provide customers with a possibility of remote access to their accounts for making payments (94.7% of the total number of operating credit institutions), of which 93.7% in 2013 provided access via the

<sup>17</sup> Credit institutions and their branches, additional offices, operations offices, credit and cash offices, and mobile cash offices.

<sup>18</sup> Including the use of the Internet, mobile phones, payment cards, the Customer-Bank system, etc.

<sup>19</sup> Source: NAFS, OMI, November 5, 2013.

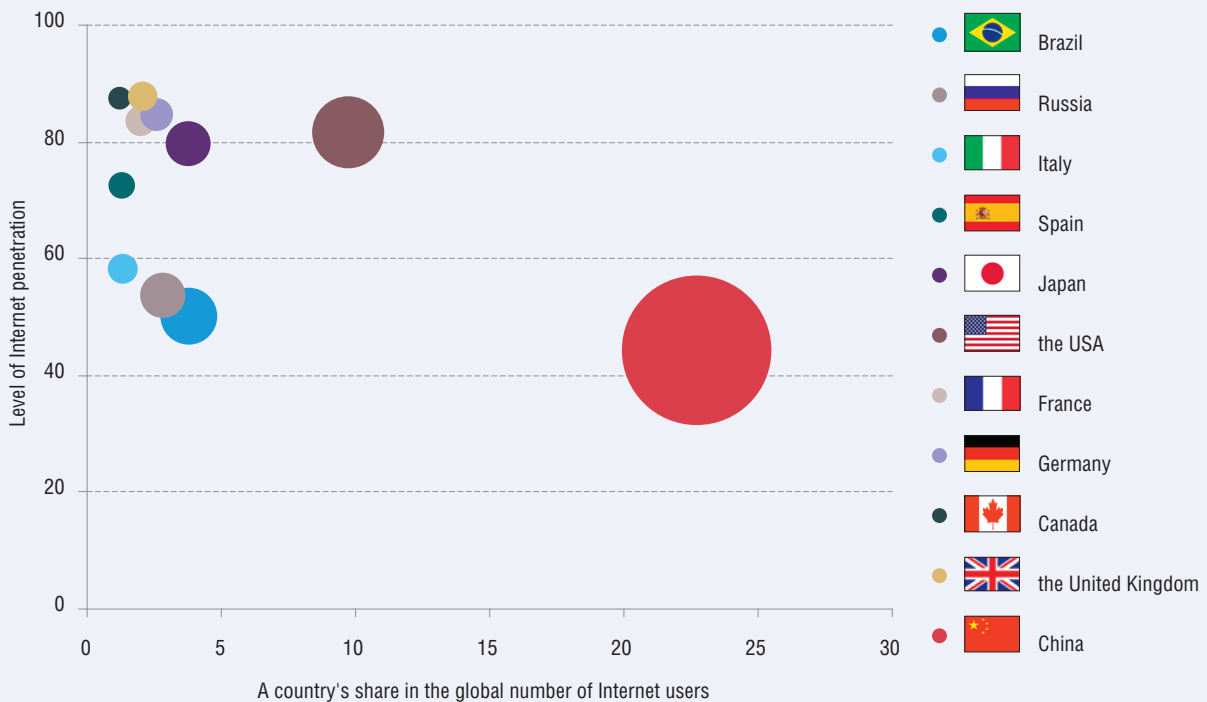
Internet and 13.1% – via mobile phones. During the year, the number of credit institutions providing their customers with an opportunity of making payments via the Internet grew by 1.7% and via mobile phones – by 11.7%.

The number of remote access accounts opened with credit institutions by individuals and legal entities other than credit institutions rose by more than 10% and reached 113.7 millions. This is more than a half (54.1%) of the total number of active accounts<sup>20</sup>.

The number of accounts available to bank customers via the Internet and mobile phones continued to grow (by 44.7 and 20.4% respectively). However, the share of these accounts in the total number of remote access accounts still remains relatively modest: as of end of 2013 the accounts with an access via the Internet and mobile phones accounted for 40.8 and 27.4% respectively (at the beginning of 2013 – 31.5 and 25.5%).

An important prerequisite for the development of the country's innovative payment mechanisms is technological and infrastructural sufficiency. In particular, further development of e-banking services is largely due to the increasing number of users of the World Wide Web, improved quality of access to it in different regions, as well as growing information security.

**Chart II.2.** A country's share in the global number of Internet users, in the global population, and the level of Internet penetration in 2013, %



*The size of the circle – a country's share in the global population.*

<sup>20</sup> Accounts through which at least one non-cash payment has been effected since the beginning of the year.

According to the international statistics<sup>21</sup>, the number of Internet users worldwide increased in 2013 compared to the previous year by 8.0% to reach 2.7 billion people (almost 40% of the global population). At the same time, the largest audience were residents of China (22.7% of all the users of the World Wide Web), USA (9.7%) and India (7.9%). Russia ranked sixth by this indicator (2.8%).

The number of Internet users in Russia is increasing every year. For example, in 2013 it reached 76.9 million, which exceeds the figure of 2000 26 times. It should be noted that in terms of Internet penetration (percentage of Internet users among the residents of the region) Russia (53.9%) is ahead of China (44.6%) and Brazil (50.4%), but lags behind the United Kingdom (87.9%) and Canada (87.7%).

According to the Public Opinion Foundation data, in the summer of 2013, like in previous years, the Internet penetration rate was the highest in the Northwestern Federal District, Urals Federal District and Central Federal District – 61.4, 59.8 and 59.2% respectively.

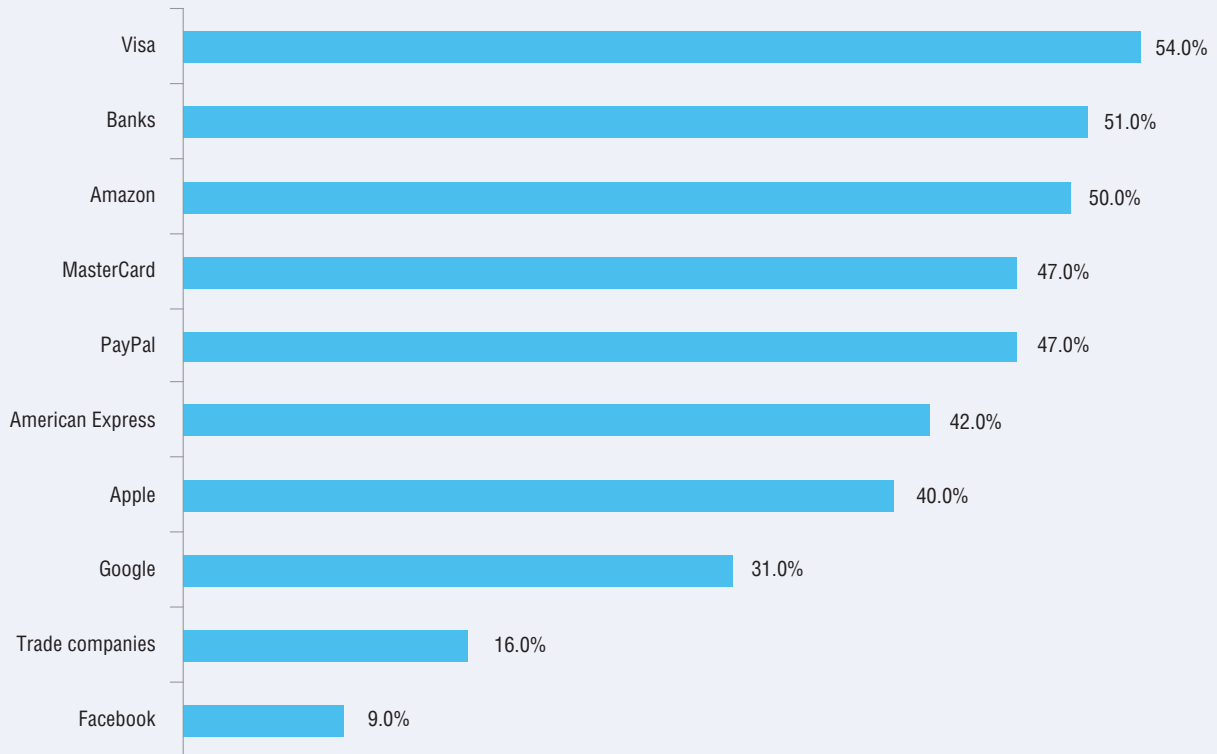
### Box 6. Mobile applications<sup>1</sup>

In recent years, the technologies used in mobile devices and applications continue to develop rapidly. Despite a decline in the rate of growth in the mobile phone market, the share of smartphones, which are becoming more accessible to a larger number of consumers, in the total sales of mobile phones is increasing. This results in the growing competition in the market of mobile applications that allow a user to perform certain actions on a daily basis (find the required information, communicate with friends, buy tickets to various events, track the status of his/her bank account, etc.) using his/her portable device (a smartphone or a pad). It should be noted here that an integral part of this multitude of mobile applications are the applications designed to make various payments without the use of cash or payment cards.

A survey of payment services consumers conducted by McKinsey in the USA<sup>2</sup> in 2013 showed that the most important aspects for users of mobile applications were the possibility of integrated execution of various payments and convenience. Another important factor influencing the choice of users is the credibility of the company issuing such an application, which is due to the need of guarantees of the safe use of such innovative methods to make payments. In general, the highest confidence coefficient is characteristic of banks, major payments networks and innovative companies.

<sup>21</sup> See: [www.internetlivestats.com](http://www.internetlivestats.com).

### Percentage of mobile application users' confidence in providers of payment services



**Source:** 'From Solutions to Adoption: The Next Phase of Consumer Mobile Payments'. McKinsey on Payments. July 2013.

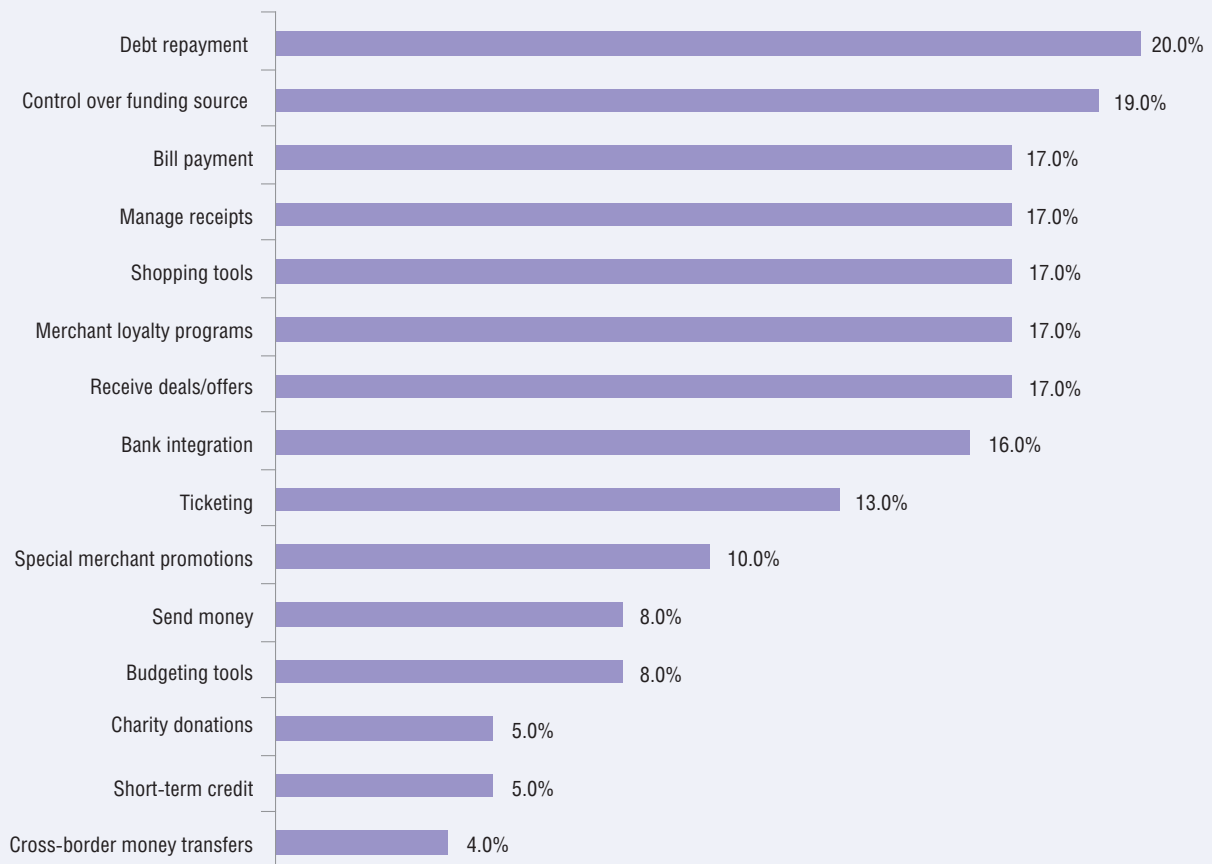
Currently, most organisations that have become or plan to become payment service providers are at the stage of designing the development strategy and positioning in this area. Over the past 18 months, most of innovative companies released their digital wallets, for example Google Wallet, POS-application from PayPal, Square Wallet, and others. At the same time, the already known payment service providers do not stand still either: Visa has launched V.me, leading banks are also actively working on their applications. Commercial organisations operate in this area as well. As an example, one could mention a commercial association Merchant Customer Exchange (MCX), which creates a collaborative solution, as well as Walgreen's, Safeway, Starbucks and other companies presenting to the market their own mobile applications.

In addition, the survey showed that consumers prefer to a multitude of different niche products the use of one or two options of best suiting them digital wallets (62% of respondents). Together with a large number and variety of niche offers from different companies operating in various spheres, this fact may subsequently determine the consolidation of mobile payment services market, become a reason for the creation by banks, together with innovative companies, of applications for servicing the accounts of users with integrated tools to make purchases.

Mobile payments are funds transfers from the account of the sender to the recipient's account via mobile devices. This fundamental and basic function was used in the United Kingdom to create a mobile payment system, making everyday payments easy for users. The project is a mobile payment system based on the interaction of existing payment service providers through existing business processes implemented in the operating payment systems of the United Kingdom (FPS, LINK, VocaLink), with which a user can make payments using only the mobile phone number of the recipient of funds. The user must be registered in the system. To make a transfer he/she needs to log in and enter the amount of the transfer and the recipient's mobile phone number, provided that it had been also previously registered in the system of mobile payments. Standardisation and testing of the system have already been conducted. It is expected that payment servic-

es providers will offer an application optimised for all the popular mobile operating systems: iOS, Android, Windows Phone and BlackBerry. Seven leading financial institutions of the United Kingdom servicing about 90% of all the accounts in the country: Barclays, Cumberland Building Society, Danske Bank, HSBC, Lloyds, RBS and Santander were involved in the development of the project. This payment system will operate only on the territory of the United Kingdom.

#### The most popular functions of mobile wallets



**Source:** 'From Solutions to Adoption: «The Next Phase of Consumer Mobile Payments»'. McKinsey on Payments. July 2013.

At the moment, the mobile application market is at an early stage of its formation, the stakes are extremely high for the market participants due to the dynamics of this sector development. It is impossible at this stage to describe a guaranteed win-win business model of any project in this area. The key aspects of success with the users of current mobile applications are the ease of use and confidence in the safety of performed actions.

<sup>1</sup> Source: 'From Solutions to Adoption: The Next Phase of Consumer Mobile Payments' (McKinsey on Payments. July 2013).

<sup>2</sup> McKinsey's 2013 Mobile Payments Consumer Panel. The data were collected through a survey of thousands of randomly selected users of mobile applications meeting the demographic profile of the US adult population. Comparison of the results with the previous survey of 2011 provides an overview of changes in the users' attitude to mobile payments (see: The Evolving Mobile Payments Consumer: Strategic Insights from Around the Globe. McKinsey on Payments. June 2012).



## II.2. Payment Instruments<sup>22</sup>

In 2013, positive trends in the development of non-cash payments persisted largely owing to the Bank of Russia's joint work with credit institutions to improve the settlement infrastructure and ensure the confidence of the population in the non-cash payment instruments.

Compared with 2012, the volume and value of payments effected by customers of credit institutions and the Bank of Russia (individuals and legal entities other than credit institutions) and by credit institutions on their own payments (hereinafter, non-banks) through funds transfer operators in Russian rubles and foreign currency increased by 33.6 and 14.1% respectively, and amounted to 9.9 billion payments totalling 625.0 trillion rubles. The average payment decreased by 14.6% compared with the previous year to 63.4 thousand rubles. On average, 40.0 million payments were effected daily to the amount of 2.5 trillion rubles.

The overwhelming majority of payments were made in Russian rubles (99.4 and 91.7% of the total volume and value of payments of non-banks). Their volume increased by almost 33.8% as compared to 2012 to 9.8 billion payments, and their value – by 14.4% to 573.2 trillion rubles. The value was such that the equivalent of annual GDP turned over in 29 days (31 days in 2012), which corresponded to the average for the CPMI member countries. The fastest turnover of the annual GDP equivalent was registered in the United Kingdom – 5 days.

As in previous years, the amount of payments denominated in foreign currency significantly exceeded the amount of payments in Russian rubles. For example, in 2013 the average payment in foreign currency equalled 811 thousand rubles, which was 13.9 times higher than the average payment in Russian rubles (58.5 thousand rubles).

In 2013, own payments of credit institutions and payments of their customers other than credit institutions accounted for 98.0% of the total volume and 82.8% of the total value of non-banks' payments made through funds transfer operators. The share of payments of the Bank of Russia customers other than credit institutions was 2.0 and 17.2% respectively.

Compared with 2012, the volume and value of non-bank payments made through funds transfer operators – credit institutions, in Russian rubles and foreign currency increased by

<sup>22</sup> Including payments in Russian rubles and foreign currency (other than transactions in the financial markets and repayments of loans) made from customer accounts with the Bank of Russia and credit institutions – individuals and legal entities other than credit institutions, including payment card transactions; remittances by individuals without opening a bank account; and own (mostly self-supporting) payments by credit institutions. According to the terminology of the Bank for International Settlements, these transactions are defined as 'payments by non-banks'.

34.4 and 14.1% respectively and equaled to 9.7 billion non-cash payments to the amount of 517.6 trillion rubles. Credit institutions effected daily 39.2 million non-bank payments worth 2.1 trillion rubles. The average payment decreased by 15.1% as compared with the previous year to 53.5 thousand rubles.

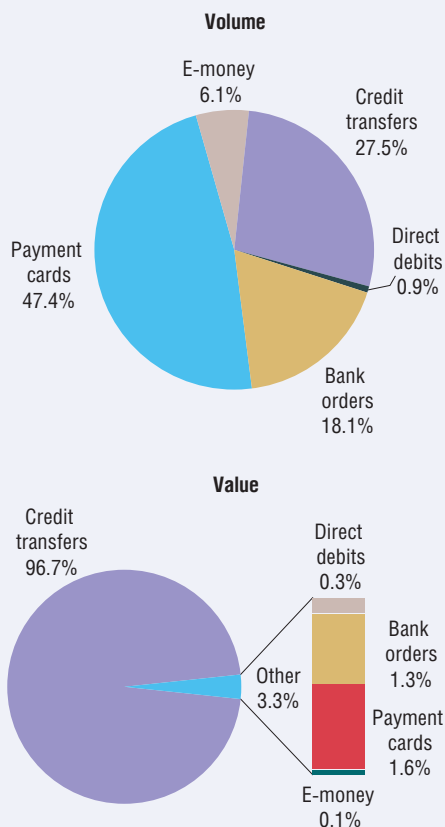
The growth of non-bank payments made through funds transfer operators – credit institutions was mainly due to high growth in non-cash transactions of individuals (largely due to transactions involving the use of payment cards), which significantly outpaced similar growth in non-cash transactions of legal entities other than credit institutions (14 times in volume and 4 times in value). Despite this, in 2013 no significant changes were observed in the structure of payments of credit institutions' customers: the total volume was still dominated by the payments of individuals (83.4%) and the total value – by payments of legal entities (95.3%).

The indicators characterising the development of non-cash payment instruments may include the ratio of cash funds received from individuals by cash-desks of credit institutions, to the volume of non-cash transactions of individuals effected on the territory of Russia. Thus, if in 2012 the ratio was 2.0, in 2013 it accounted for 1.4. The narrowing gap between the value of cash and non-cash transactions of individuals is mainly a result of the persisting over the past few years trend of individuals moving from the predominant use of cash to non-cash payments, resulting in a much more dynamic growth of non-cash transactions of individuals. Thus, if cash receipts by cash-desks of credit institutions for the year grew by only 3.3%, the increase in non-cash transactions amounted to more than 43%.

As compared with 2012, the structure of own payments of credit institutions and payments of their customers other than credit institutions on payment instruments underwent significant changes. Over the past few years, payment cards are becoming increasingly popular among the population (compared with 2012, payments involving their use increased 1.6 times by both volume and value), their share in the total volume of payments effected via credit institutions rose significantly from 39.7% in 2012 to 47.4% in 2013. The share of credit transfers, by contrast, declined by 8 percentage points in volume (to 27.5%) and by 0.4% in value. However, credit transfers, that were larger by the amount of one payment, still prevailed in the total value of transactions effected via credit institutions (96.7%).

The development of non-cash payment instruments depends largely on the development of the payment infrastructure of credit institutions, including e-banking. As of the end of 2013, 94.8% of operating credit institutions offered their customers the opportunity of remote access to their accounts to effect payments. The number of remote access accounts opened with credit institutions by individuals and legal entities other than credit institu-

**Chart II.3.** Structure of payments effected via funds transfer operators – credit institutions in 2013, by payment instrument\*



\* The share of cheques does not exceed thousandth fractions of a percent by both volume and value.

tions rose by 11.8% (to 113.7 million), which makes more than a half (54.1%) of the total number of active accounts.

In 2013, as in previous years, customers of credit institutions actively used electronic technologies when making payments. Non-cash payments made on the basis of payment orders sent by customers to credit institutions electronically, including the use of payment cards, increased almost twice in volume and by 21.3% in value, making 7.8 billion operations amounting to 422.3 trillion rubles (84.9% of the total volume and 85.5% of the total value), of which payments via the Internet and mobile phones accounted for 22.3 and 74.3% respectively.

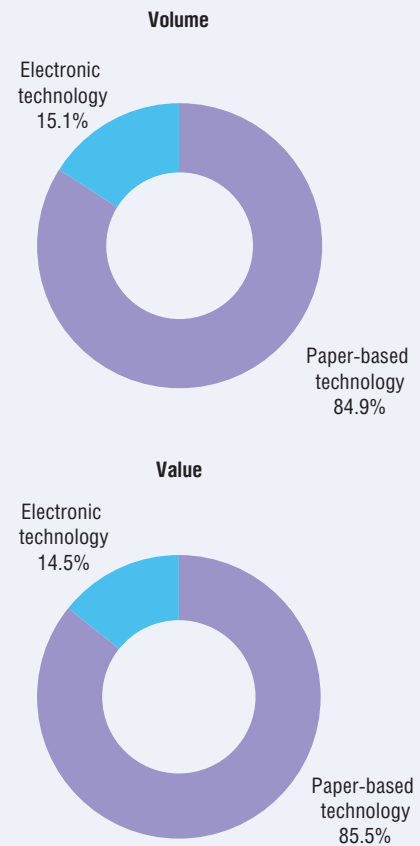
High rates of growth in the volume of operations involving the use of payment cards persisting over the past several years have a significant impact on the structure of payments, the orders for which are sent electronically. The share of non-cash transactions involving the use of payment cards in the total volume of electronic payments in 2013 amounted to 58.9%. However, the share of these operations in the total value of payments using electronic technologies is still insignificant – 1.9% compared with 1.6% in 2012.

In 2013, the share of payments made via the Internet and mobile phones in the total volume and value of transactions by individuals using payment cards amounted to 21.3 and 8.0% respectively. Compared to the previous year, they grew 5.4 and 3 times respectively.

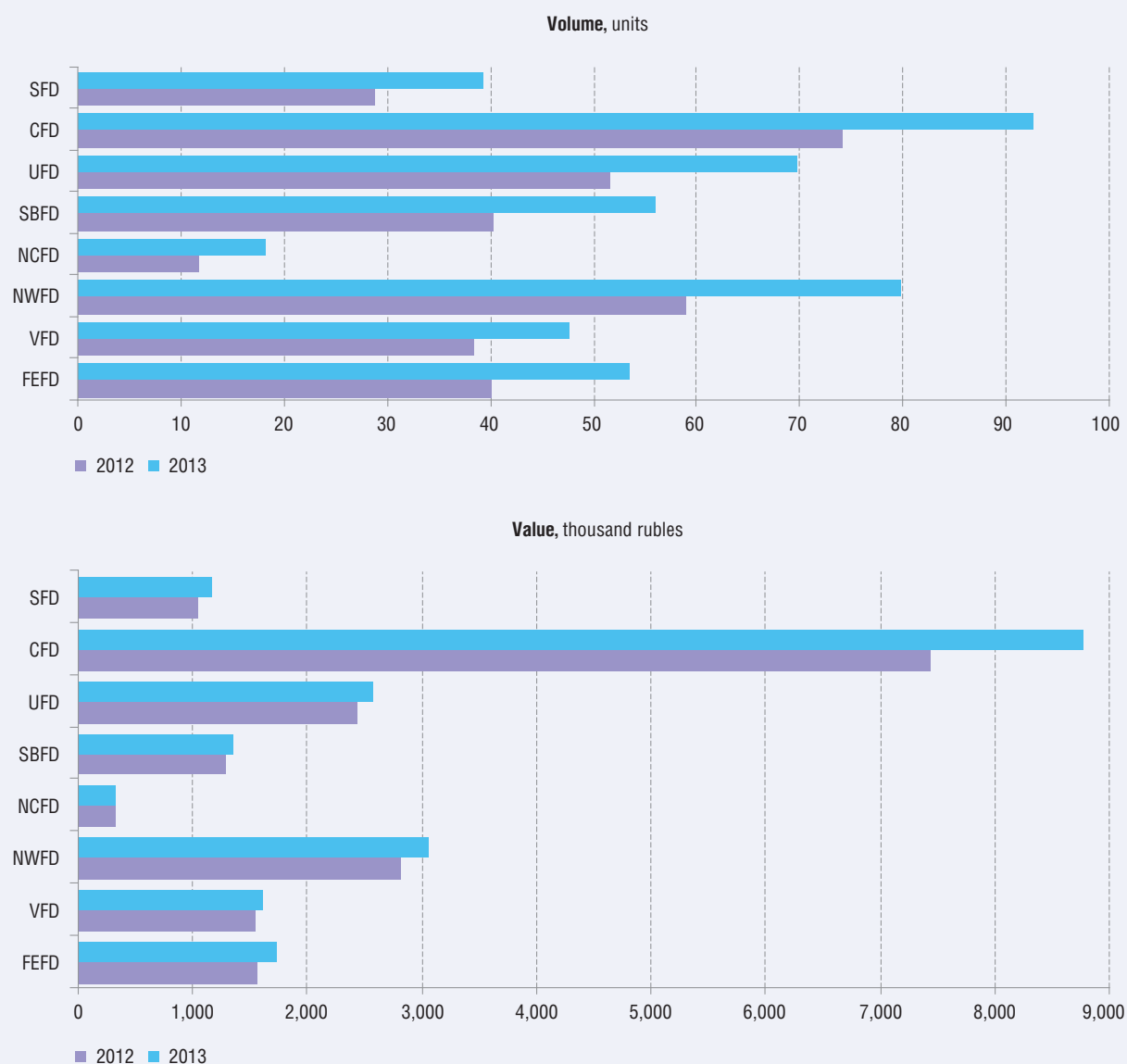
High demand for payment services from enterprises, organisations and population within the context of payment infrastructure development was observed in the Central Federal District. For example, in 2013 there were 93 payments<sup>23</sup> per capita totalling 8.8 million rubles in this district, which is much higher than the indicator for Russia as a whole (63 payments worth 3.6 million rubles). Among other federal districts the highest value of this indicator was registered in the Northwestern Federal District (80 payments totalling 3.1 million rubles) and the lowest – in the North Caucasus Federal District (18 payments totalling 0.3 million rubles).

The average amount of payment made via credit institutions in the Central Federal District was 1.7 times higher than the amount of a similar indicator for Russia as a whole and equalled 94.7 thousand rubles. The average amount of a payment in the North Caucasus Federal District was the smallest – 18.5 thousand rubles. In other federal districts this indicator ranged from 24.2 thousand to 38.3 thousand rubles.

**Chart II.4.** Structure of customer payments forwarded to credit institutions in 2013, by type of technology used



<sup>23</sup> E-money transfer operations are not included.

**Chart II.5. Non-cash payments per capita, by federal district**

### II.2.1. Payment cards<sup>24</sup>

Payment cards are among the fastest growing payment instruments in Russia. Rapid growth in key indicators characterising the development of this segment of the retail payment services market observed over the past few years testifies to this fact.

In particular, in 2013 the rate of growth in non-cash transactions made using payment cards<sup>25</sup> was significantly higher than that of other payment instruments. During the year, their volume and value increased 1.6 times, whereas the corresponding fig-

<sup>24</sup> In this paragraph the term 'payment cards' refers to debit and credit cards.

<sup>25</sup> Including payments for goods and services, customs payments and other operations (here and below other operations involve funds transfers from one bank account to another, charity payments, etc.).

ures for credit transfers were only 4.7% in volume and 13.6% in value, for payments in the form of direct debits – 3.3 and 16.6% respectively, for transactions using electronic means of payment for e-money transfers – 2.6 and 1.7 times. This, in turn, led to an increase in the share of non-cash transactions using payment cards in the total volume of payments by non-banks: out of 100 payments made by funds transfer operators – credit institutions, 47 were made using payment cards (39 in 2012).

However, the share of these non-cash transactions in the total value of payments by non-banks remained low (1.6%), largely due to the fact that payment card holders, who are mainly individuals, tend to use them to make small-amount payments for goods and services of everyday use. Besides, the infrastructure for accepting payment cards, including for making large purchases, is still insufficiently developed in Russia.

Nevertheless, steady positive dynamics of indicators characterising its development have been registered in recent years. For example, in 2013 the number of devices for non-cash transactions increased by more than a third and at the end of the year totalled 183.5 thousand ATMs, 986.3 thousand POS terminals and imprinters installed in points of sale.

**As compared with 2012, the number of payment systems registered by the Bank of Russia and effecting funds transfers using payment cards increased by 6 and as of end of 2013 reached 16. These included CONTACT payment system, Payment System NCC (National Credit Cards), UNION CARD Payment System, United Settlement System payment system, HandyBank payment system, Visa Payment System, Payment System «Golden Crown», Customs Card Payment System, MasterCard Payment System, Universal Electronic Card Payment System (UEC PS), InterExpress payment system, Multi-service Payment System, Sberbank payment system, American Express payment system, UnionPay payment system, and REXPAY payment system. Their share in the total number of payment cards issued in 2013 amounted to 97.9%, and in the total volume and value of non-cash transactions using payment cards – 99.6 and 99.7% respectively.**

Indicators characterising the level of public confidence in payment cards may include the amount of the cash balance in bank accounts of individuals opened with credit institutions and intended for transactions using payment cards. Over the past five years, the value of this indicator increased almost threefold.

The demand for payment cards is also evidenced by the fact that out of the 923 credit institutions operating as of end of 2013, 641 (or almost 70%) offered their customers services

**Chart II.6.** Growth rate in the number of debit and credit cards in 2013, by the federal district, %



related to card servicing, with 633 of them engaged in issuing payment cards, 590 – in acquiring.

As of end of 2013, the number of payment cards issued by Russian credit institutions amounted to 217.5 million, of which 86.6% were debit cards and 13.4% – credit cards. Every year the number of payment cards increases steadily, at the same time a slowdown in their growth has been observed in recent years as a result of the gradual saturation of the market. Thus, in 2011 the number of payment cards increased by 38.6%, in 2013 – by 13.6%. In 2013, the number of debit and credit cards per one Russian citizen remained unchanged at 1.5 cards.

Indicators characterising the real demand for payment cards may include the share of active cards<sup>26</sup> in the total number of issued payment cards. As in the previous year, slightly more than a half of the total number of debit cards referred to active cards. For credit cards the same indicator increased by almost 4 percentage points as of end of 2013 to 48.0%.

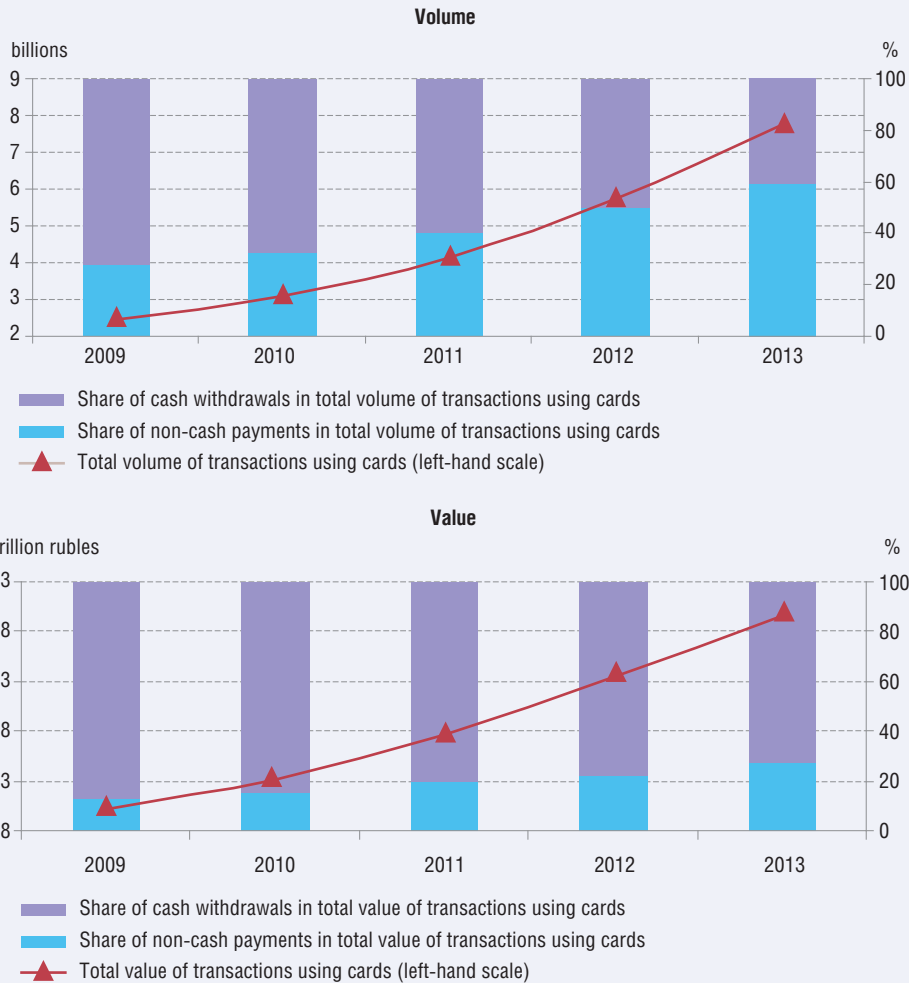
In 2013, holders of payment cards issued by Russian credit institutions effected 7.7 billion transactions amounting to 29.6 trillion rubles both in Russia and abroad, of which more than 96% in both volume and value fell on domestic operations. On average, 21.2 million operations worth 81.1 billion rubles were effected daily, which was 1.4 times more in volume and 1.3 times more in value than in 2012.

Over the past few years, the trend towards faster growth in non-cash transactions using payment cards, as compared with cash withdrawals, persisted. In 2013, the volume and value of non-cash transactions made using payment cards increased 1.6 times, whereas the growth in cash withdrawals was 10.3 and 18% respectively. In more than a half of the federal districts the rate of growth in non-cash transactions exceeded the nationwide rate.

The overwhelming majority of transactions using payment cards were traditionally the transactions made in the infrastructure of a credit institution with the use of payment cards issued by this credit institution (hereinafter, on-us transactions)<sup>27</sup>. When performing cash withdrawal operations, in 90 out of 100 cases payment card holders effected on-us transactions and only in 10 cases the indicated operations were carried out in the infrastructure of other credit institutions. In the cost structure, the share of such operations stood at 92.9 and 7.1% respectively. When paying for goods and services in points of service, or through ATMs, the on-us transactions accounted for 60.4 and 44.8% of the total volume and value of transactions.

<sup>26</sup> Here and below, active cards are those used in at least one operation related to cash withdrawal and (or) payment for goods and services, including customs payments, during the reporting period.

<sup>27</sup> When making on-us transactions there is no data interchange between credit institutions – issuers and acquirers of payment cards through the payment system.

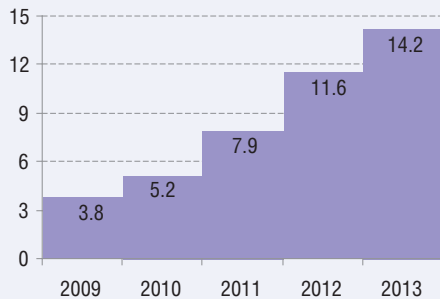
**Chart II.7.** Structure of transactions using payment cards in 2009–2013

High rates of growth in non-cash payments resulted in an increase of their share in the total volume of transactions using payment cards from 49.9% in 2012 to 59.2% in 2013 and in the total value – from 22.3 to 27.5%. In non-cash transactions using payment cards, the majority were payments for goods and services – 94.3% in volume and 64.1% in value. The average daily use of POS terminals was 6.7 million operations to a total amount of 9.8 billion rubles, which was 1.6 and 1.4 times higher than in 2012. The share of such payments in the turnover of retail trade and paid services to the population and in the turnover of public catering companies amounted to 14.2% (an increase of 2.6 percentage points). Funds transfers from one bank account to another, payments to charities and etc. accounted for 5.7 and 31.2% respectively. Customs payments using payment cards amounted to less than 1% of the total volume and 4.7% of the total value of effected transactions using payment cards.

The trend towards expanding the scope of applying payment cards as non-cash means of payment was characteristic



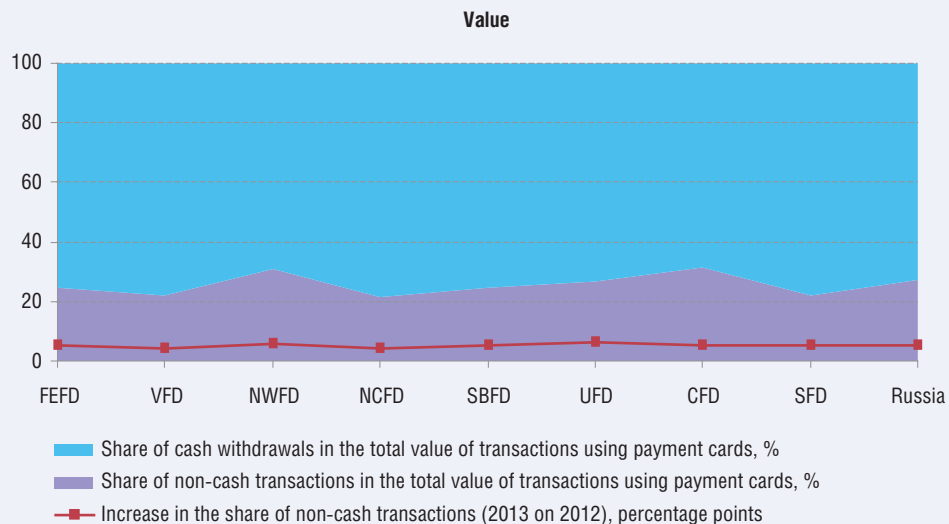
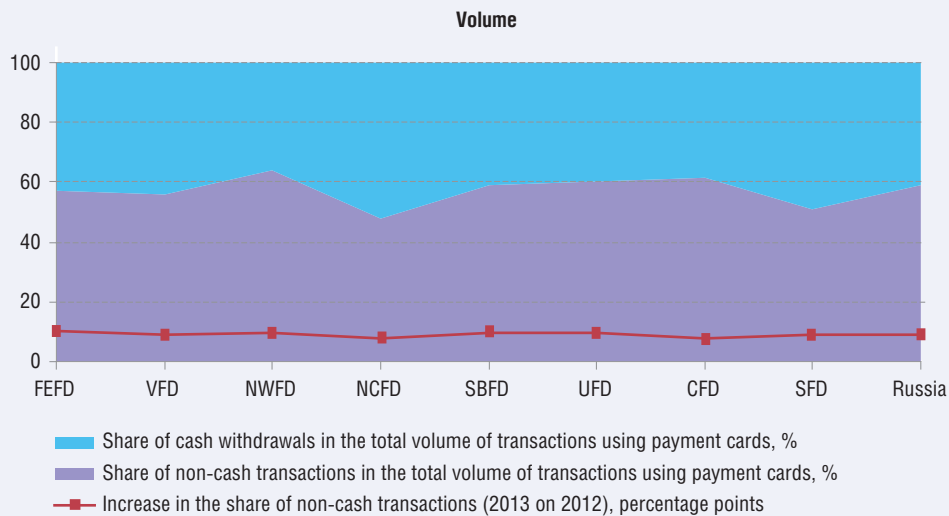
**Chart II.8.** Share of payments for goods and services using cards in retail trade turnover, turnover of public catering companies and of payments for services in 2009-2013, %



of all the federal districts. In four out of the eight federal districts the share of non-cash payments in the total volume of transactions using cards increased by more than 10 percentage points. This was largely due to a significant increase in payments for goods and services made at points of sale on the territory of the Russian Federation. The largest increase in the volume of such payments was observed in the Southern Federal District (1.9 times), the smallest – in the Northwestern Federal District (1.4 times). It should be noted that in indicator characterising the volume of payments per one electronic terminal, the Northwestern Federal District (3,800 operations), as in previous years, significantly outpaced other regions. The largest gap in this indicator between the outsider and the leader was registered in the Southern Federal District (2.7 times) and the North Caucasus Federal District (2.9 times), where 1,400 and 1,300 payments per one POS terminal were effected respectively.

Despite the significant lag of federal districts from the leading one, a positive trend was registered in 2013 – this gap began

**Chart II.9.** Structure of transactions using payment cards in 2013, by federal district





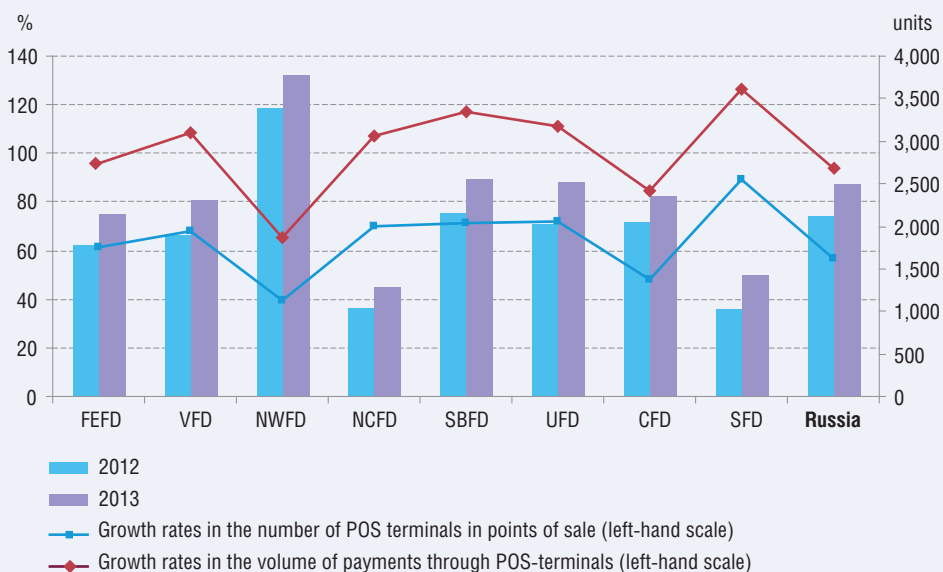
to decrease, primarily due to the payment infrastructure development in the regions in which, as compared with the previous year, the number of POS terminals increased more rapidly than in the Northwestern Federal District.

The share of non-cash payments made through ATMs in the total volume of non-cash payments using payment cards remained relatively high and in some federal districts (the North Caucasus, Southern and Central Federal Districts) exceeded the share of payments for goods and services using POS terminals. During the year, the volume and value of payments through ATMs increased 1.5 and 1.4 times and equalled 1.5 billion operations amounting to 597.7 billion rubles. There were 4.0 million operations to the amount of 1.6 billion rubles daily.

Still the largest share in the total volume and value of payments through ATMs was constituted by payments made in the Central Federal District (56.1 and 45.5% respectively), most of which were effected in the Moscow Region. On average, one ATM located in the Central Federal District accounted for 22.8 thousand operations worth 7.5 million rubles annually, whereas in other federal districts these figures were significantly lower and ranged from 4.5 thousand operations worth 1.8 million rubles in the North Caucasus Federal District to 9.8 thousand operations worth 2.5 million rubles in the Southern Federal District.

As in previous years, payment card holders used the Internet and mobile communication devices extensively when making payments. In 2013, they made 978.1 million operations worth 653.7 billion rubles. The average amount of a transfer was 668 rubles, which was much less compared to payments made via POS terminals (1,458 rubles), but higher than the average amount of a payment effected via ATMs (405 rubles).

**Chart II.10.** Volume of payments per one electronic terminal installed in points of sale in 2012–2013, by federal district

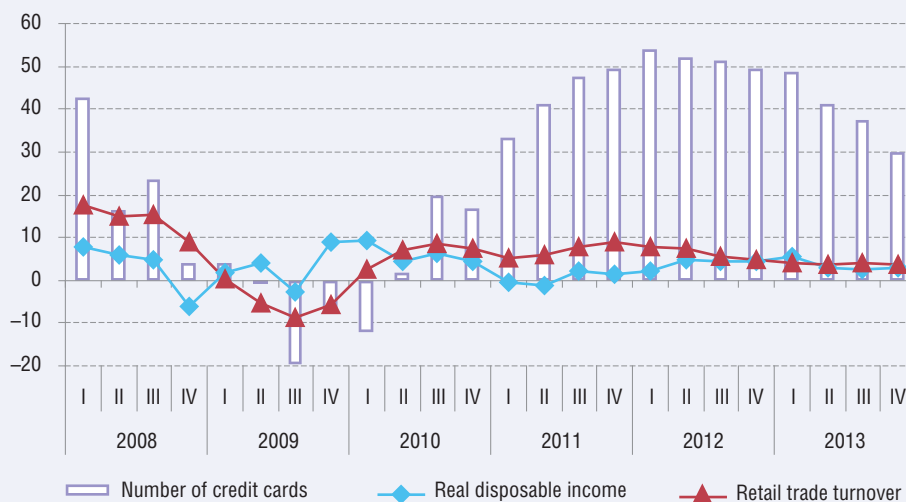


The structure of transactions using payment cards was dominated by operations with debit cards, which is primarily due to their prevalence among the issued cards. However, the credit card market, like a year before, was developing more dynamically due to the use of these cards within the framework of the growing consumer lending projects. It should be noted that in comparison with 2012, under the influence of a number of factors (including the introduction by the Bank of Russia of regulatory requirements with regard to consumer lending risk, especially the unsecured lending risk) the growth of lending to households slowed down, and this was reflected in the issue of credit cards. An increase in the number of credit cards in 2013 slowed down to 29.8 from 49.6% in 2012.

Despite the slowing growth in the number of credit cards issued by Russian banks, the offer of this type of cards grew faster (1.3 times) than the offer of debit cards (an increase by 11.4%). This situation was typical of all the federal districts, with the highest growth rates of the number of credit cards observed in the Urals Federal District and the North Caucasus Federal District – 47.1 and 46.2% respectively. The lowest value of this indicator, as in the previous year, was registered in the Central Federal District (21.8%), where the average level of per capita income was significantly higher than in other Russian regions.

Dominating use of credit cards as a non-cash payment instrument is viewed as a positive trend: in 77 out of 100 cases cardholders used them for making non-cash payments and only in 23 cases – for cash withdrawals. At the same time, for debit cards this ratio was in favour of cash withdrawal transactions – 58 against 42, which was caused mainly by the fact that the majority of such cards were issued within the framework of salary projects and social services projects, and the

**Chart II.11.** Growth rates of retail trade turnover, real disposable income, and number of credit cards, as % of corresponding period of previous year

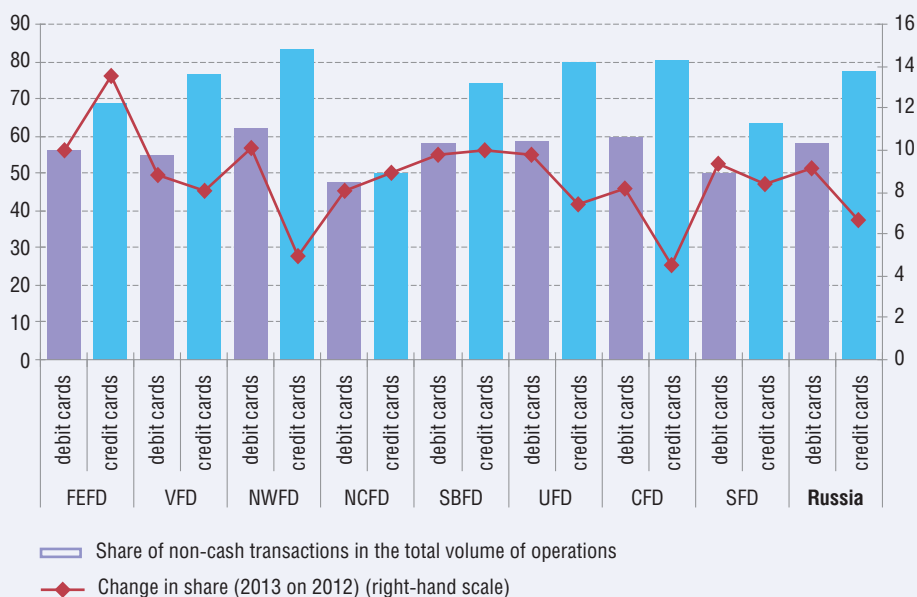


cardholders still preferred to use them for withdrawing cash. However, as regards the settlement cards, a positive trend towards an increase in the share of non-cash transactions has formed in recent years: relative to 2011, it increased by more than 18 percentage points.

In 2013, the five largest credit institutions (in terms of equity capital) accounted for 45% of the total number of issued cards, 67.7 and 56.1% of the total volume and value of transactions using payment cards. On average, a credit institution belonging to this group issued 19.7 million cards annually, which were used for making 13.1 million operations to the amount of 1.0 trillion rubles. This is substantially higher than similar indicators of credit institutions belonging to a group of organisations with the smallest size of equity capital.

Each group was characterised by a considerable gap (in both the number of cards issued and the transactions made using them) between the leading credit institution and the outsider. The largest difference in the values was observed in the first group, because it included the largest issuing bank, which accounted for over 90% of all the transactions. In the second group, where more than 67% of the total number of payment cards issued by credit institutions included in this group were concentrated in six credit institutions that are among the 10 largest banks – payment card issuers, the gap between the leading credit institution and the outsider was the smallest.

**Chart II.12.** Share of non-cash transactions in the total volume of transactions using payment cards in 2013, by type of payment card, %



**Table II.1.** Number of payment cards and transactions using them in 2013, by group of credit institutions

Distribution of credit institutions ranged by size of equity capital	Share of payment cards, %			Average indicator per credit institution		
	by number of cards	by volume of transactions	by value of transactions	number of cards, thousands	volume of transactions, thousands	value of transactions, billion rubles
Top 5	45.5	64.7	56.1	19,785.1	13,090.2	1,002.2
From 6 <sup>th</sup> to 20 <sup>th</sup>	30.0	19.0	24.4	729.7	225.8	15.2
From 21 <sup>st</sup> to 50 <sup>th</sup>	9.8	5.7	7.2	230.1	50.8	2.5
From 51 <sup>st</sup> to 200 <sup>th</sup>	11.6	8.2	9.2	124.9	64.6	3.4
From 201 <sup>st</sup>	3.1	2.3	3.0	1.5	0.8	0.1

Despite the dynamic development of payment card market, the level of concentration in this segment of the banking market remained high in both the number of devices accepting payment cards and the transactions made using them. In 2013, the five largest credit institutions (in terms of equity capital) accounted for more than a half of the entire infrastructure for accepting payment cards. More than 68.6% of the total volume and 63.3% of the total value of transactions made on the territory of Russia by holders of payment cards issued by Russian banks and non-resident banks were generated by credit institutions belonging to the first group.

**Table II.2.** Card accepting infrastructure in 2013, by group of credit institutions

Distribution of credit institutions ranged by size of equity capital	Share of card accepting devices, %			Average indicator per credit institution		
	by number of devices	by volume of transactions	by value of transactions	number of devices, thousands	volume of transactions, millions	value of transactions, billion rubles
Top 5	53.2	68.6	58.1	141.3	995.6	2,771.4
From 6 <sup>th</sup> to 20 <sup>th</sup>	23.4	17.1	24.8	22.2	82.9	394.3
From 21 <sup>st</sup> to 50 <sup>th</sup>	11.5	5.9	7.1	5.4	16.0	63.0
From 51 <sup>st</sup> to 200 <sup>th</sup>	8.0	6.2	7.5	1.0	3.9	15.7
From 201 <sup>st</sup>	3.9	2.2	2.5	0.1	0.3	1.3

An important role in the use of payment cards as a means of effecting non-cash payments is played by the inbound and outbound tourism. In 2013, citizens of the Russian Federation made abroad 257.1 million transactions using payment cards to the amount of 991.3 billion rubles, of which 89.2% in volume and 76.2% in value were payments for goods (work and services). As compared with 2012, such operations increased 1.6 times in volume and 1.3 times in value. Apart from the fact that Russians are actively using cards abroad, they adopt the experience and culture of everyday use of payment cards in advanced countries, which gradually changes their consumption habits and encourages the use of cards as a payment instrument.

Payment cards were also actively used by foreign tourists. In 2013, 63.3 million operations amounting to 244.3 billion rubles were made in Russia with cards issued abroad, of which 71.6 and 56.6% were payments for goods (work and services). Government support for tourism and holding of major international sports and cultural events stimulate the expansion and improvement of the infrastructure for card acceptance by points of sale and banks.

### **Box 7. Unauthorised transactions using payment cards**

Currently, the market of non-cash retail payment services develops actively, also as a result of the introduction of new technologies for making transactions using payment cards. Thus, the development of this segment is characterised not only by the planned modernisation of services providing significant benefits to cardholders in effecting non-cash payments, but also by continuous changes in the structure of risks inherent in this type of banking services.

#### **Types of unauthorised transactions**

The most common type of unauthorised transactions using payment cards are the operations performed by entering the details of payment cards. It should be noted that these operations may be performed through manufacturing a payment card containing the details or without a payment card available.

If the details of a payment card contain the card verification value (CVV)<sup>1</sup>, the fraudsters can effect transactions without the payment card available (make purchases from online stores). If the details do not contain the CVV, the fraudsters manufacture a counterfeit payment card and can use it for operations in points of sale.

To obtain the details of payment cards fraudsters use various methods, with skimming and phishing being the most common among them<sup>2</sup>.

Recently, however, new ways of obtaining information necessary for unauthorised transactions with payment cards emerged.

#### **Stealing of information from large retail chains**

On December 19, 2013, the Target company, one of the largest retail chains in the USA, issued an official statement that it was aware of the fact of unauthorised access to the information on their customers' payment cards. According to Target estimates, in the period from November 27, 2013 to December 15, 2013 fraudsters obtained information on approximately 40 million payment cards. Further investigation and the theft method analysis confirmed the use by fraudsters of malicious software on POS terminals. Subsequently, the stolen payment card data were sold in specialised illegal online stores.

Due to the large volume of compromised payment cards, the issuing banks initially faced the problem of payment card re-issue due to the overloaded capacity of factories producing payment cards.

In addition to the Target company, other points of sale were attacked in the same way, for example the Goodwill company selling clothes and household goods.

#### **Stealing of information from computers in public places**

As the remote banking services technologies are being developed, especially the Internet banking, an increased attention has been paid recently to improving the security of transactions (two-factor authentication, antiviruses, etc.). Therefore, to obtain payment card data fraudsters started to use computers at public places, for example in hotels. Taking advantage of free access to a computer, fraudsters install special software that allows them to record the input information (keyloggers). After that, if guests of the hotel use the computer for online banking operations the fraudsters get information on the payment card details.

Obtaining information in this way is possible due to the fact that organisations, including hotels, often fail to pay enough attention to information security of their computers.

### **Combating unauthorised transactions**

The introduction of the latest technologies in the retail payment services market makes its participants (payment systems and credit institutions) find new methods of preventing unauthorised transactions that have a negative impact on the spread of high-tech services in the area of payment services.

Unauthorised transactions not only entail financial losses for payment card holders and organisations of trade and services, but may also adversely affect the reputation of credit institutions that have issued and service these payment cards. Subsequently, this can discredit cards as a type of payment instruments and have a negative impact on the consumer confidence in this type of banking services. According to the results of the survey conducted by the Bank of Russia jointly with the NAFS, respondents in 16.8% of cases called fraud among the reasons for which they do not plan to get a payment card.

Throughout the world, central (national) banks, credit institutions, payment systems, and other organisations pay substantial attention to combating unauthorised transactions, with the primary collection and analysis of information on the effected unauthorised transactions playing an important role in these activities. To this end, in May 2013 the Bank of Russia introduced the reporting form 'Data on Unauthorised Transactions Using Payment Cards', which mainly aims at identifying the weaknesses of the current retail payment services, as well as at assessing the effectiveness of previous measures aimed at combating the unauthorised transactions. The term 'unauthorised transactions' in this reporting form refers to transactions made without the customer's consent (made by unauthorised persons, including the transactions resulting from the illegal actions) using payment cards, that have been recognised as such by a credit institution or a court of law.

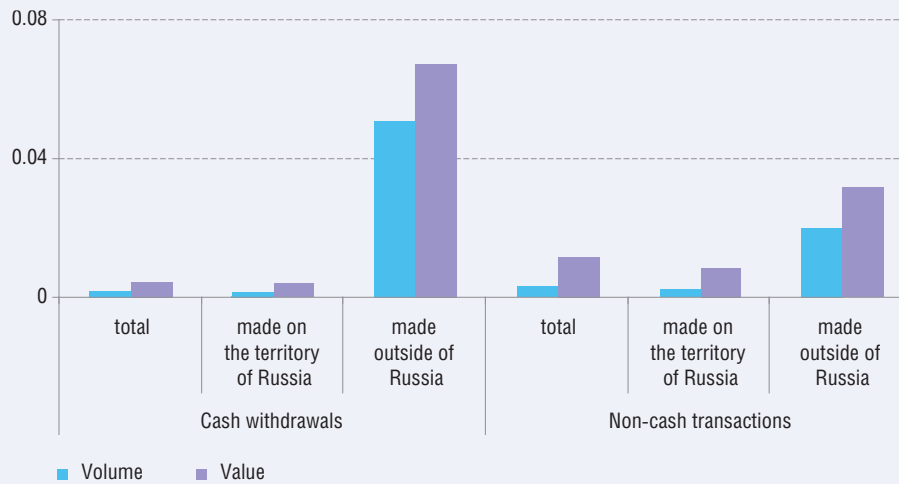
According to the statements submitted by credit institutions to the Bank of Russia, in the first nine months of 2013, 133.8 thousand unauthorised transactions were registered, which were made on the territory of Russia and abroad using the cards issued by Russian credit institutions to the amount of 1.2 billion rubles. The ratio of unauthorised transactions to authorised transactions using payment cards amounted to 0.002% in volume and 0.006% in value. The highest value of this index was characteristic of payments for goods and services – 0.003 and 0.012% respectively. The absolute values of these data suggest that per 1,000 rubles of transactions using payment cards 6 kopecks on average fell on unauthorised transactions. For transactions related to the payment for goods and services, this index reached 12 kopecks for every thousand of rubles.

**According to the European Central Bank<sup>4</sup>, 9.1 million unauthorised transactions using cards issued by banks of SEPA countries were made in 2012 to the amount of 1.33 billion euros. Their share in the total volume and value of transactions using cards issued by banks of SEPA countries was 0.017 and 0.038% respectively.**

The structure of unauthorised transactions using cards issued by Russian credit institutions was dominated by operations performed on the territory of Russia – 67.3 and 74.6% of the total volume and value of unauthorised transactions. The share of unauthorised transactions made outside of Russia was 32.7 and 25.4%. However, for such transactions the value of the index characterising the ratio of unauthorised transactions to authorised transactions using payment cards (0.024% in volume and 0.04% in value) was significantly larger than for transactions made on the territory of Russia (0.002 and 0.005% respectively). This is largely due to the participation of international criminal groups in the fraudulent schemes, as well as a result of a complex system of cross-border crime investigation.

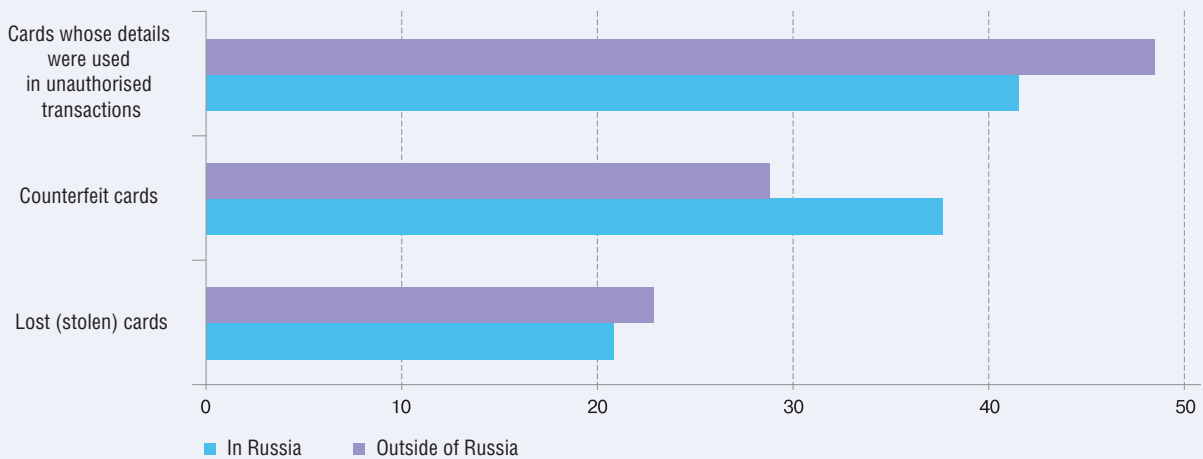
**According to the European Central Bank, in 2012, a half of the total volume of unauthorised transactions using cards issued by banks of SEPA countries fell on domestic operations performed within the SEPA.**

### Ratio of unauthorised transactions to authorised transactions using payment cards issued by Russian credit institutions, by type of operation, %



Most often when making unauthorised transactions in Russia fraudsters used the details of payment cards. The share of such cards in the total number of payment cards, which were used for unauthorised transactions, amounted to 41.6%, that of counterfeit cards – 37.6%, and that of the lost (stolen) cards – 20.9%. The corresponding figures for unauthorised transactions made outside of Russia using cards issued by Russian credit institutions were 48.5, 28.8, and 23.0% respectively.

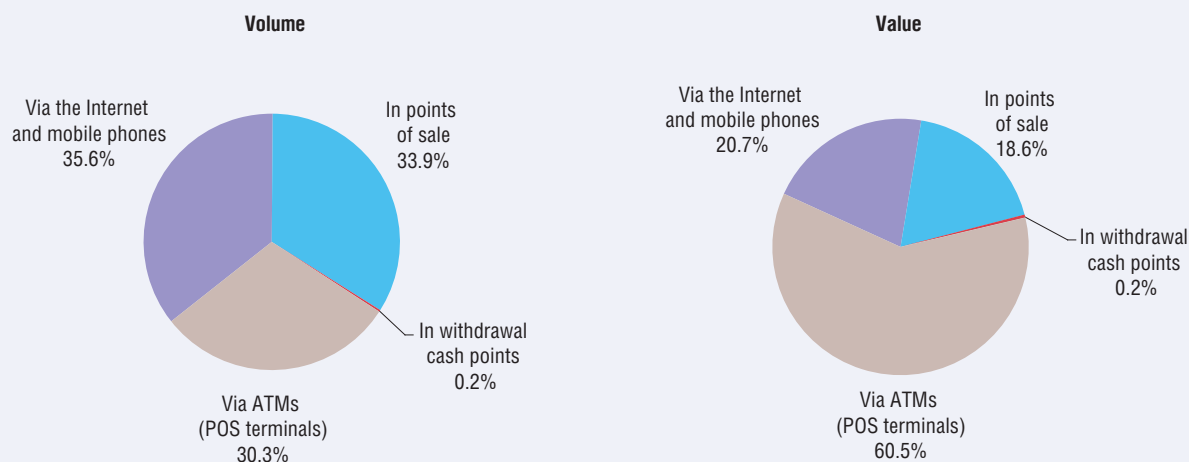
### Number of payment cards issued by Russian credit institutions, which were used in unauthorised transactions, %



36 out of 100 unauthorised transactions made both on the territory of Russia and abroad were the transactions carried out via the Internet and user devices (e.g., mobile phones, tablets, etc.), 34 were – operations in the points of sale, and 30 – the transactions made via ATMs and POS terminals. In value terms, 60.5% of unauthorised transactions fell on transactions made via ATMs and POS terminals, 20.7% – on the transactions via the Internet and user devices, 18.6% – on operations in points of sale. The volume and value of unauthorised transactions made in cash points were 0.2%.

**According to the European Central Bank, in 2012, 60% of the total value of unauthorised transactions using cards issued by banks of SEPA countries fell on operations made via the Internet, 23% – on transactions in points of sale, and 17% – on operations through ATMs.**

### Structure of unauthorised transactions using payment cards issued by Russian credit institutions, by place of transaction



As it was noted above, unauthorised transactions are characterised by a high share of payments for goods (services). To a large extent this may be due to the fact that some points of sale are equipped with terminals that do not support all of the modern transaction technologies (for example, technology using a chip or contactless technology), as well as the fact that employees of points of sale may collude with fraudsters for making unauthorised transactions. Thus, a lower level of security in organisations of trade and services can be one of the factors contributing to the increase in the share of unauthorised transactions on payments for goods (services).

The activities of Russian credit institutions aimed at the implementation of new security systems in transactions using payment cards play an important role in reducing the risk of unauthorised transactions on the territory of Russia. To ensure the safe use of payment cards Russian credit institutions employ in Russia ATMs equipped additionally with surveillance cameras and alarm systems, as well as with anti-skimming devices. Moreover, the reduced share of unauthorised transactions in Russia is caused by the measures aimed at improving the financial literacy of the population, as well as by the use of different technologies by Russian banks (e.g., 3D-Secure<sup>5</sup>), which reduce the risk of unauthorised transactions and ensure a smooth transition to the issue of payment cards of the EMV standard<sup>6</sup> with the development of the related infrastructure.

In 2013, within the framework of off-site supervision over credit institutions, the Bank of Russia carried out work aimed at ensuring the preparedness of credit institutions – funds transfer operators to the implementation of Article 9 of the Federal Law No. 161-FZ with regard to informing customers on each operation effected using an electronic means of payment.

According to information received by the Bank of Russia, as of end of 2013, out of 927 credit institutions (including non-bank credit institutions) 901 credit institutions (over 97%) were fully prepared to implement the provisions of the above mentioned Article, 23 credit institutions did not use electronic means of payment, and 3 were not ready to implement the provisions of this Article due to the replacement of the servicing processing center.

<sup>1</sup> In the event the fraudsters get information from the online store.

<sup>2</sup> See: Payment and Settlement Systems No. 36: Payment System in 2011 P. 25. URL: [http://cbr.ru/eng/psystem/analytical/prs36\\_e.pdf](http://cbr.ru/eng/psystem/analytical/prs36_e.pdf).

<sup>3</sup> The Target company has been working since 1946, it currently has nearly 2,000 shops located in the USA and Canada.

<sup>4</sup> Third report on card fraud. ECB. February 2014.

<sup>5</sup> 3D-Secure is an additional level of security for operations via the Internet. The usually provided information is supplemented with an additional request for confirmation of card ownership (for example, code sent by an SMS message).

<sup>6</sup> EMV is an international standard developed by Europay, MasterCard and Visa for transactions on payment cards with a chip to enhance the security of financial transactions.



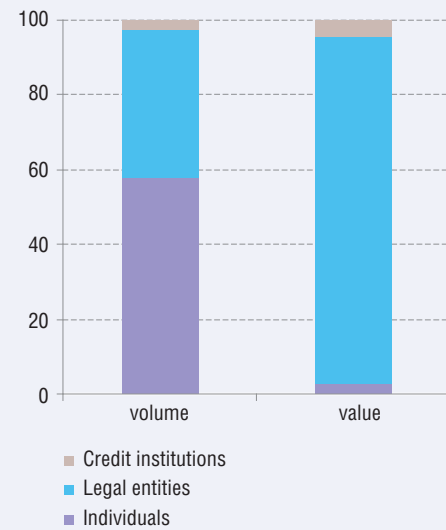
## II.2.2. Credit transfers

Credit transfers in Russia are among the main payment instruments for non-cash transactions. In 2013, about 30% of the total volume of payment instructions received by credit institutions fell on credit transfers, in terms of payment value their share was 96.7%. Non-banks issued about 2.7 billion instructions for the implementation of credit transfers in Russian rubles and foreign currency to the amount of 500.3 trillion rubles. Their value was 7.5 times higher than the GDP (7.1 times in 2012). The average size of a payment was 187.9 thousand rubles.

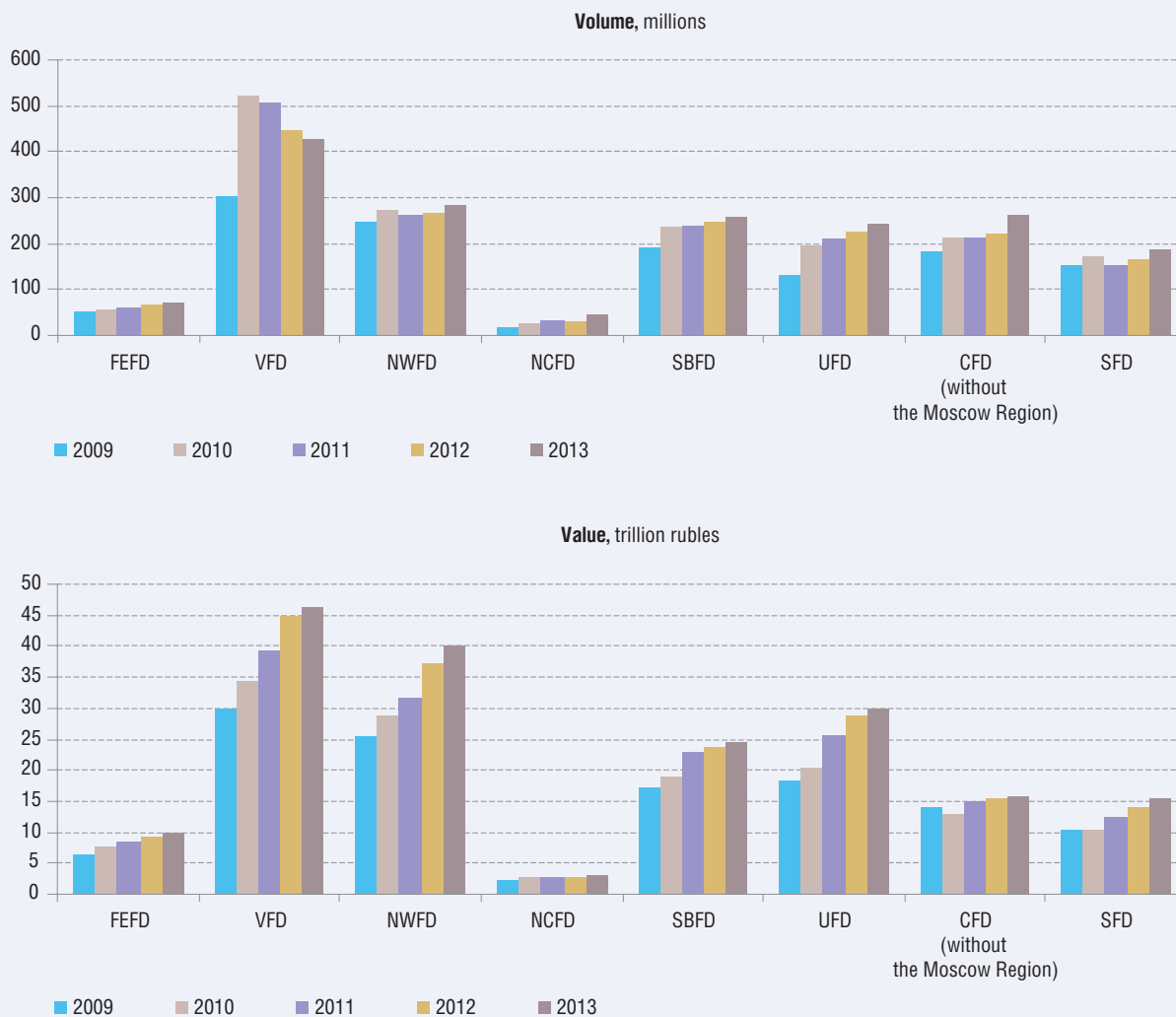
**The CPMI countries, where credit transfers are most common as compared with other payment instruments, include the United Kingdom (where according to international statistics<sup>28</sup>, in 2013 the share of credit transfers in the total value of payments effected in the national currency made 96.9%), Switzerland (96.3%), Mexico (95.9%) and Belgium (95.6%). In terms of volume, credit transfers were most popular in Switzerland (51.1%), Belgium (37.9%), Brazil (36.8%), Mexico (33.2%) and Germany (31.5%). Credit transfers were the least popular in volume in Saudi Arabia (0.4%), Singapore (1.1%), India (9.4%) and Canada (9.6%), in value – in Singapore (20.7%), Canada (33.8%) and the USA (45.9%).**

The annual growth in payments made by non-banks through credit institutions in the form of credit transfers amounted to 4.7% in volume and 13.6% in value, with positive dynamics being observed in all the federal districts except for the Volga Federal District (a reduction by 4.2% in volume). The highest rate of growth in the volume of credit transfers was recorded in the North Caucasus Federal District (by 42.9%), which is largely due to a sharp increase in the volume of transfers by individuals without opening bank accounts (2.1 times). The value of credit transfers exceeded the nationwide figure only in the Central Federal District (18.3%).

**Chart II.13.** Structure of credit transfers made by credit institutions in 2013, by region, %



<sup>28</sup> CPMI publication 'Statistics of Payment, Clearing and Settlement Systems in CPMI Countries' for 2013 ([www.bis.org/publ/cpss112.pdf](http://www.bis.org/publ/cpss112.pdf)).

**Chart II.14.** Credit transfers in 2009–2013, by federal district

About a half of the total volume of all the credit transfers and more than 66% of their value fell on the Central Federal District, of which on the Moscow Region – 33.0 and 63.0% respectively. The shares of other federal districts in using this payment instrument were substantially lower: in volume – from 1.6% (North Caucasus Federal District) to 16.0% (Volga Federal District), in value (in the same federal districts) – from 0.6 to 9.2% respectively.

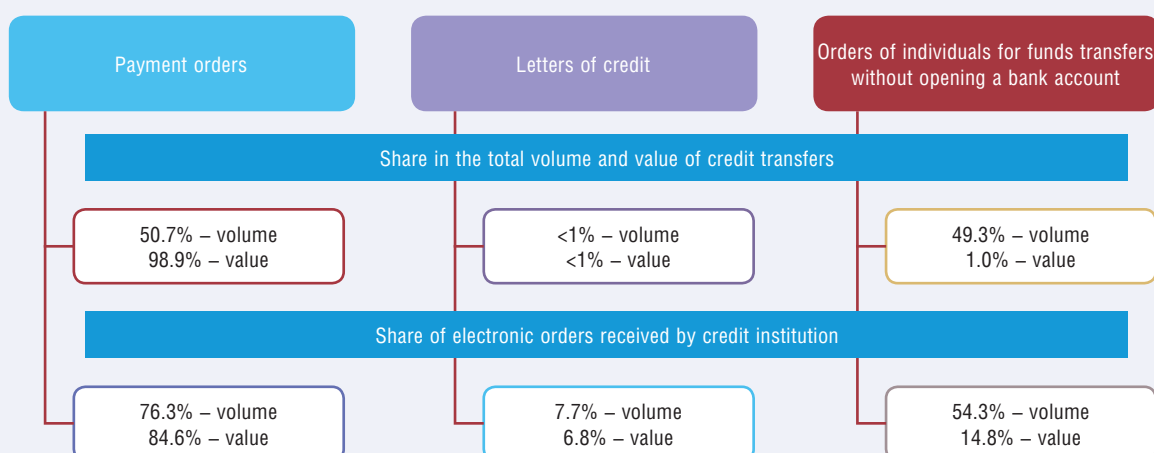
Federal districts differed significantly by the per capita volume and value of credit transfers. While a resident of the North Caucasus Federal District in 2013 effected, on average, five credit transfers to the amount of 311 thousand rubles, a resident of the Central Federal District accounted for 30 credit transfers to the amount of 8.5 million rubles (it should be noted that in the Moscow Region this indicator equalled 46 and 16.6 million rubles respectively).

**Table II.3.** Operations using credit transfers in 2012–2013, by group of credit institutions

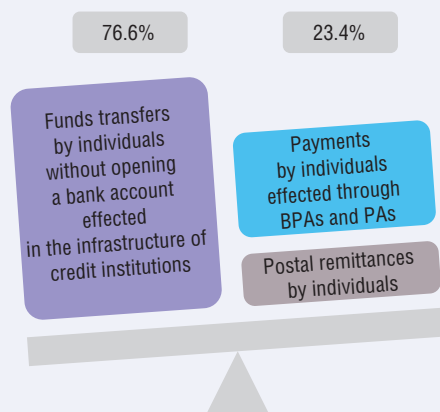
Distribution of credit institutions ranged by size of equity capital	Share of credit transfers, %				Average indicator per credit institution			
	volume		value		volume, millions		value, billion rubles	
	2012	2013	2012	2013	2012	2013	2012	2013
Top 5	40.2	41.8	33.8	33.0	203.8	218.2	29,708.8	32,450.6
From 6 <sup>th</sup> to 20 <sup>th</sup>	17.2	19.7	20.9	19.6	29.1	34.2	6,127.4	6,402.4
From 21 <sup>st</sup> to 50 <sup>th</sup>	8.4	6.6	16.0	13.3	7.1	5.7	2,342.7	2,169.1
From 51 <sup>st</sup> to 200 <sup>th</sup>	13.8	13.0	16.0	23.6	2.3	2.3	467.8	772.0
From 201 <sup>st</sup>	20.4	18.9	13.4	10.6	0.7	0.7	78.0	71.9

In the course of several years, the level of concentration of operations using credit transfers, by group of credit institutions, remained unchanged: the top five credit institutions in terms of equity capital accounted for about 40% of all the payments in the form of credit transfers and for a third of their total value. On average, each credit institution within the group processed annually 218.2 million of incoming instructions to a total amount of 32.5 trillion rubles, which substantially exceeded similar indicators for groups of credit institutions with lower amounts of equity capital.

In 2013, there were no significant changes in the structure of credit transfers by type of settlement documents. The share of payments using payment orders accounted for about a half of the total volume of credit transfers and for 98.9% of their total value. The average size of a payment based on payment orders made 367 thousand rubles (339,7 thousand rubles in 2012). As in the previous year, out of 100 payments by payment orders 79 fell on payments by legal entities other than credit institutions, 16 – on payments by individuals and 5 – on own payments of credit institutions. In the total value of payments by payment orders payments by legal entities prevailed (94.0%).

**Chart II.15.** Structure of credit transfers in 2013, by type of settlement documents

**Chart II.16.** Structure of transfers and payments by individuals without opening a bank account effected within bank and non-bank infrastructure in 2013, by value



Within the framework of credit transfers, the bulk of orders were sent by customers of credit institutions in the electronic form (65.7% of the total volume and 85.5% of the total value).

In 2013, legal entities other than credit institutions traditionally used electronic technologies more often than individuals: five of every six orders in the form of a credit transfer were transferred by them electronically, which represented 87.5% of the total value of payments. During the year the volume and value of payment orders submitted by legal entities to credit institutions electronically increased (by 8.8 and 19.3% respectively) and of those submitted on paper decreased, on the contrary (by 7.1 and 1.7%). In terms of volume and value of such payments, the payments made via the Internet prevailed (about 77%).

The electronic form of orders within the framework of credit transfers is becoming increasingly popular with individuals: in 2013 this type of orders accounted for more than a half of all credit transfers by individuals and 18% of their value. The structure of the latter was dominated in terms of volume by transfers of individuals without opening a bank account made through ATMs and POS terminals (almost 86%) and in terms of value – by payments with payment orders (almost 72%).

Individuals extensively used the Internet and mobile phones to make payments. During the year, the volume and value of such payments increased by 16.6 and 46.4% respectively. Out of 100 payment orders sent by individuals to a credit institution, 69 were transferred by them via the Internet and using mobile phones.

The share of transfers by individuals made without opening a bank account in the total volume of credit transfers by individuals reached 85.6% (1.3 billion transactions), and in the total value – more than one-third (4.6 trillion rubles). Their volume and value increased by 5.1 and 4.0% respectively with the average size of one transfer remaining unchanged at 2012 level – 3.5 thousand rubles. During the year, there were nine transfers per capita on average totalling 32.2 thousand rubles.

The demand of the population for this type of payment services is confirmed by the fact that the value of funds transfers by individuals effected in the bank infrastructure without opening a bank account was 2.6 times larger than the total value of postal remittances and payments made by individuals through payment agents and bank payment agents, including the federal state unitary enterprise the Russian Post.

Large-sum transfers without opening a bank account are mostly carried out by population at the cash offices of credit institutions: they accounted for 45.7% of the total volume and 85.2% of the total value of transfers. Operations carried out using ATMs and POS terminals accounted for 54.3 and 14.8% respectively.

Payments by individuals in favour of legal entities that were, primarily, organisations providing housing and utility services, and government bodies (91.0% in volume and 73.1% in value)

prevailed in the transfers of this category. The average size of a transfer in favour of legal entities, as compared with 2012, increased insignificantly and amounted to 2.8 thousand rubles, which was 4.1 times less than the size of an average transfer in favour of individuals.

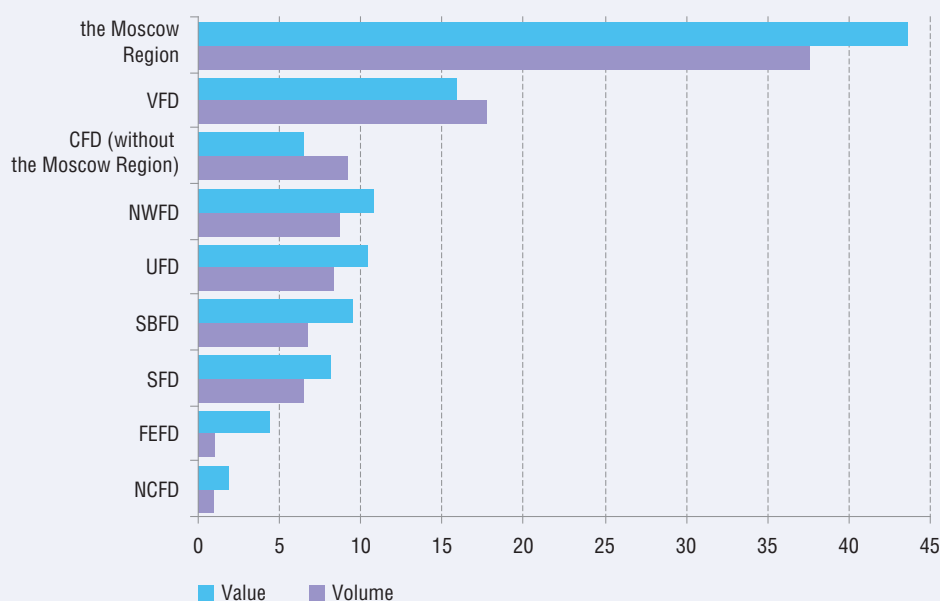
Recipients of funds transfers without opening a bank account were located mostly in Russia. Transfers made within the country were 54 times more in volume and 8 times more in value than those made abroad.

As many as 99.1% of the total volume and 92.6% of the total value of funds transfers by individuals without opening a bank account were effected in Russian rubles. Foreign-currency transfers accounted for only 0.9 and 7.4% respectively. But they tended to be much larger: the average size of a transfer in foreign currency was 28.7 thousand rubles, or almost 9 times more than the average size of a ruble transfer.

**As of end of 2013, the Bank of Russia registered 13 payment systems executing funds transfers without opening a bank account: CONTACT payment system, UNISTREAM international funds transfer system, Western Union payment system, «ANELIK» payment system, payment system «Regional payment system», BLIZKO payment system, Payment System «Golden Crown», PrivatMoney payment system, Migom international funds transfer system, payment system «International Money Transfers LEADER», payment system InterExpress, MultiService Payment System, and payment system Sberbank.**

The Central Federal District was the leader among the federal districts in transfers by individuals without opening a bank account – it made 46.7% of the total volume of such transfers and a half of their value, with most of the transfers effected by residents of the Moscow Region. Residents of the Volga Federal District performed such transactions almost three times less often – 17.7% in volume and 15.9% in value. The lowest values of these indicators were registered in the North Caucasus Federal District (less than 1% in volume and about 2% in value, with almost all the transfers without opening an account in the region made in favour of legal entities (92.3% in volume and 46.6% in value).

The ongoing decline in the concentration of payment services in the provision of funds transfer services by banks without opening a bank account testifies to a gradual increase in the competition in this segment of the retail payment services market. In 2013, Russia's five largest credit institutions accounted for 67.4% of the total volume of transfers without opening a bank account or almost 3 percentage points less than in the previous year. In terms of value of such transfers, the ratio of payment services

**Chart II.17.** Structure of funds transfers by individuals without opening a bank account in 2013, by federal district, %

concentration in credit institutions slightly increased and stood at 46.3%. At the same time, credit institutions of the Moscow Region continued to dominate (they accounted for 35.1% of the total volume and 36.8% of the total value of transfers).

According to the Bank of Russia study conducted together with the NAFS, over the past year 21.2% of respondents made funds transfers in favour of individuals with every 10<sup>th</sup> of them (10.8%) – without opening a bank account, 6.9% – from a bank account, and about 2% of the respondents made transfers using both methods. Among the respondents who performed money transfers, 76.7% did that occasionally (but not less frequently than once every six months), 17.9% – several times a month, 1.1% – several times a week.

The overwhelming majority of respondents (87.0%) made transfers in favour of individuals in Russia. As many as 17.3% of those polled sent money to the CIS countries and 2.9% – to non-CIS countries.

Most often, funds transfers were made by respondents aged from 35 to 45 (27.2%), least often – by respondents older than 60 years (10.7%). Transfers without opening a bank account, as the study showed, are popular mainly among people aged from 35 to 60 (about 13%), transfers from a bank account – among Russian citizens aged 25–44 (10.5%).

The largest share of respondents making funds transfers live in Moscow and St Petersburg (22.4%). Transfers from a bank account (8.6%) are most often observed in these cities. Transfers without opening a bank account are most popular in cities with a population ranging from 50,000 to 100,000 people (13.5%) and in villages (12.3%).

The share of credit transfers used in the framework of a letter of credit remained small (in the total value of credit transfers it did not exceed a tenth fraction of a percent). In terms of volume of transactions in the framework of settlements under a letter of credit, payment transactions by individuals dominated (77.3%), in terms of value payments by legal entities other than credit institutions prevailed (71.0%); 6.8% of the total volume and 21.7% of the total value of letters of credit were presented to credit institutions electronically.

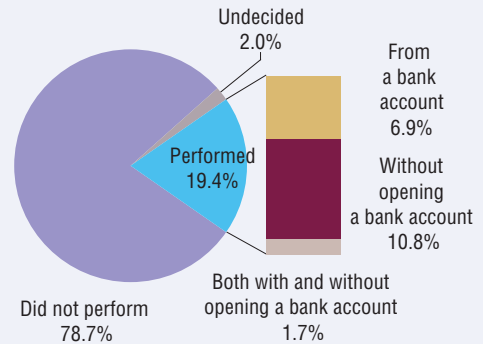
### Remittances sent by individuals from Russia

In 2013, the Russian market of cross-border transfers continued to develop dynamically. During the year the total value of cross-border transfers by individuals<sup>29</sup> from and to Russia increased by a quarter (by 11.4% in 2012) and amounted to \$78.8 billion. Of these, almost 75% were funds transfers from Russia, which is three times more than the incoming transfers. The balance of cross-border operations remained negative and amounted to \$39.2 billion (\$34.5 billion in 2012).

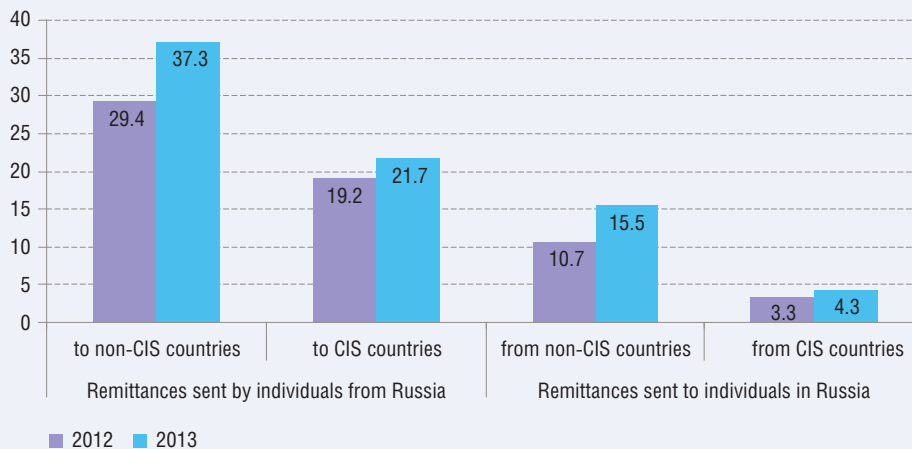
**According to the World Bank data, in 2013 Russia ranked 20<sup>th</sup> by value of funds transfers among the major recipient countries and 2<sup>nd</sup> among the leading sender countries.**

As in previous years, in 2013 non-CIS countries had the largest share of cross-border funds transfers made by individuals from and to Russia, their value exceeded the similar indicator for the CIS countries twofold.

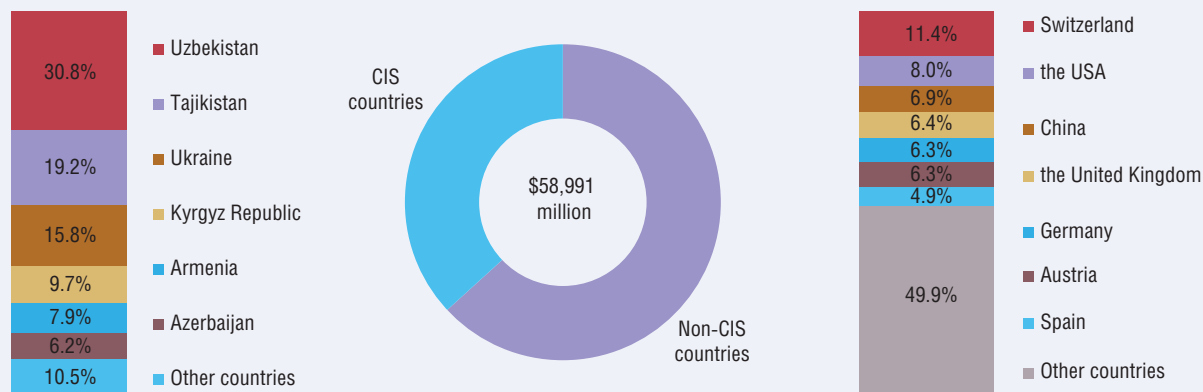
**Chart II.18.** Funds transfers in favour of individuals by respondents



**Chart II.19.** Individuals cross-border remittances sent, by transfer direction, billion dollars



<sup>29</sup> Cross-border non-cash transfers (receipts) by resident individuals and non-resident individuals (receipts in favour of resident and non-resident individuals) made with or without opening an account with a credit institution, including remittances made via money transfer systems.

**Chart II.20.** The structure of remittances sent by individuals from Russia in 2013, by recipient country, %

### Remittances sent by individuals from Russia

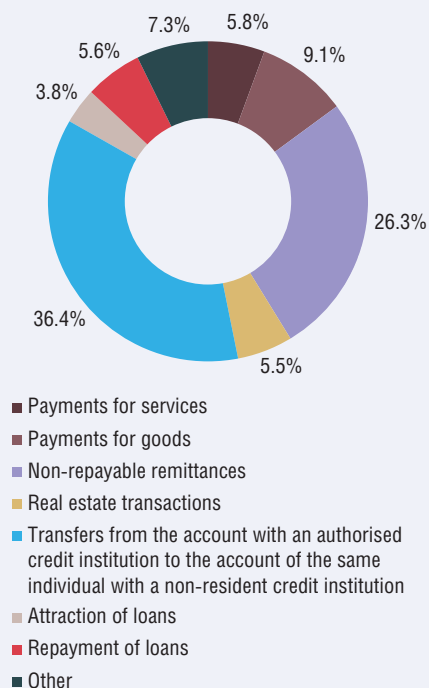
In 2013, individuals effected funds transfers from Russia amounting to \$59.0 billion, which exceeded the same indicator for 2012 by 21.4%. The bulk of the transfers were made to non-CIS countries. Top recipient countries were, as before, Switzerland, the USA, China, the United Kingdom and Germany, although their total share decreased slightly – from 41.0% in 2012 to 38.9% in 2013. Transfers to the CIS countries amounted to \$21.7 billion, an increase of \$2.5 billion compared to 2012. More than a half of the transfers to the CIS countries were sent to Uzbekistan and Tajikistan.

The share of remittances sent by individuals from Russia via the payment systems without opening a bank account<sup>30</sup>, decreased by 3 percentage points as compared with the previous year and amounted to 40.0%, of which the overwhelming majority (88.1%) went to the CIS countries.

Residents of the Russian Federation made the largest share of remittances from the country. In more than a third of all the cases they transferred funds to their own accounts with foreign banks (36.4%). Non-repayable remittances accounted for 26.3%, while the remaining 37.3% were payments for goods and services, transfers related to loans, e-money transfers, real estate transactions, etc.

### Remittances received by individuals in Russia

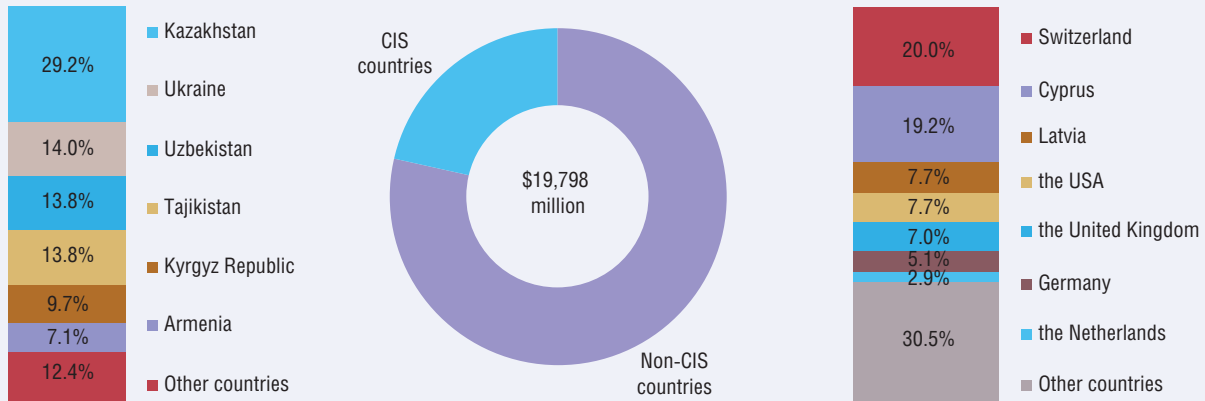
In 2013, the value of cross-border transfers to the Russian Federation in favour of individuals exceeded the similar indicator for the previous year by 40.9% and stood at \$19.8 billion.

**Chart II.21.** Cross-border remittances sent by Russian resident individuals, by purpose of remittances

<sup>30</sup> Payment systems for remittances include CONTACT payment system, UNISTREAM international funds transfer system, Western Union payment system, «ANELIK» payment system, payment system «Regional payment system», BLIZKO payment system, PrivatMoney payment system, Migom international funds transfer system, payment system «International Money Transfers LEADER», Payment System «Golden Crown», InterExpress payment system and VTB payment system.



**Chart II.22.** The structure of cross-border remittances made to individuals in Russia in 2013, by remitter-country



The average amount of one transaction increased by 21.6% to \$3,200. The largest share of all the receipts fell on remittances made from non-CIS countries, among which Switzerland, Cyprus, the USA and Latvia were in the lead.

Of all the funds 20.1% were transferred via payment systems without opening a bank account. The value of remittances to Russia from the CIS countries in favour of individuals grew faster and amounted over the year to \$3.0 billion, the share of these receipts increased to 74.4%. The average amount of one transaction exceeded the same indicator for non-CIS countries and amounted to \$984.

As before, remittances to Russia from abroad were made mostly in favour of residents, their share was 82.0%. Transfers to their own accounts with credit institutions (22.1% of funds), repayments of principals on loans (20.7%) and non-repayable receipts (18.1%) dominated the structure of transfers to Russia.

**Costs of migrant remittance services in different countries**

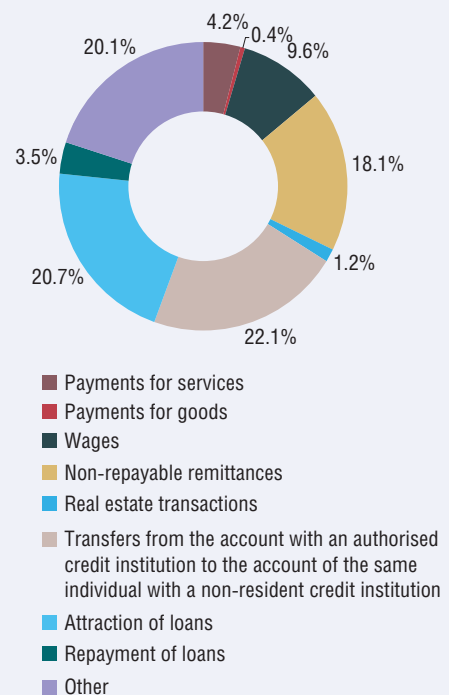
According to data of the Internet resource of the World Bank Remittance Prices Worldwide<sup>31</sup> providing information on 220 country corridors, whose use ensures remittances from 32 to 89 countries, the global average cost of transferring an amount of \$200 or its equivalent in the national currency decreased from 9.0 to 8.6% of the amount transferred in the fourth quarter of 2013 as compared with the third quarter of 2012<sup>32</sup>. The cost of transfers in Japan, France, Germany and Canada was higher than the global average and the average for the G8 countries<sup>33</sup>.

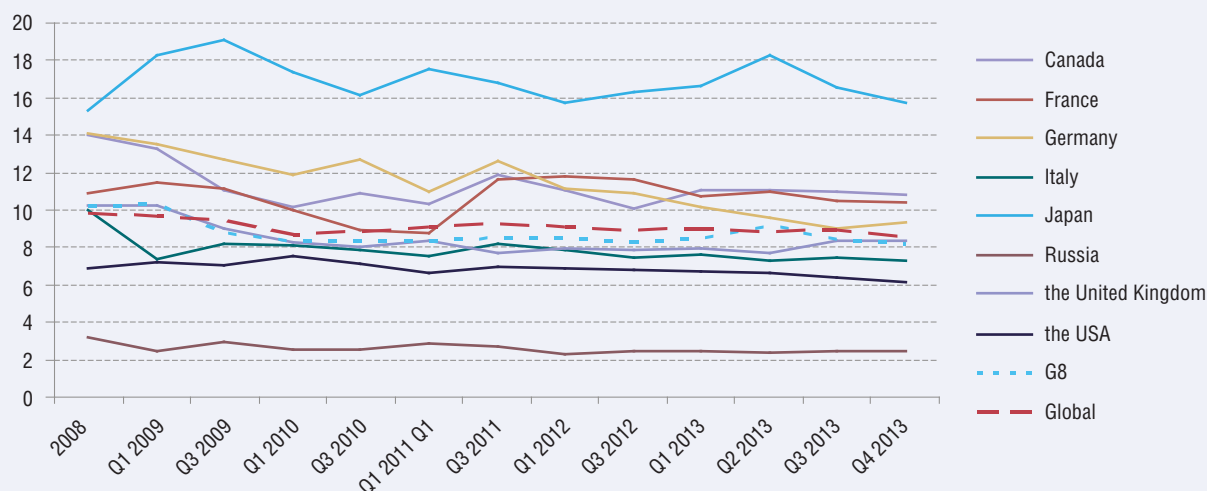
<sup>31</sup> An analysis of trends in the average total cost of migrant remittance services. 2013. Issue 8 (December).

<sup>32</sup> Until 2013, the data were collected every six months and published in the first and third quarters of the year. Starting from 2013, the data have been published quarterly.

<sup>33</sup> An international club that unites governments of the United Kingdom, Germany, Italy, Canada, Russia, the USA, France and Japan.

**Chart II.23.** Cross-border remittances to Russia for the benefit of resident individuals, by purpose of receipts



**Chart II.24.** Average total cost of a remittance in G8 countries, as % of a remittance amount

The opposite situation was observed in Russia, the USA and Italy. In particular, the lowest cost of a transfer in the G8 countries – 2.44% – was registered in Russia.

### II.2.3. Direct debits

In 2013, the share of payments based on direct debits in the total volume of non-cash payments of customers of credit institutions and their own payments amounted to a little less than 1%, and in the total value to 0.4%. In 2013, 85.0 million transfers worth 1.8 trillion rubles were made in the form of direct debits. The annual growth rate was 3.3% in volume and 16.6% in value. Relative to GDP, the share of payments in the form of direct debits increased from 2.5% in 2012 to 2.7% in 2013.

The increase in payments using this payment instrument was observed in most federal districts, with the highest growth registered in the Far Eastern Federal District – by 34.5% in volume and 3.5 times in value. A reduction was observed only in the Volga and North Caucasus Federal Districts (about 15% in volume and 10% in value in each). The average size of one payment in Russia in the form of direct debits increased by 12.9% to reach 21.1 thousand rubles.

Over a half of direct debit payments were based on payment claims. In terms of value they reached 65% (1.2 trillion rubles). As compared with 2012, the volume of such payments decreased by 10.7%, with their value declining by 5.1%. The average size of payment based on payment claims made up 25.1 thousand rubles.

The share of payments under collection orders increased in volume and value to 45.3 and 35.0% respectively. The average

size of payment based on collection orders made up 16.3 thousand rubles.

As in previous years, in 2013, payments by legal entities other than credit institutions dominated the structure of direct debit payments making 77.8% of the total volume and 92.3% of the total value. Individuals used this tool for making payments less actively: they accounted for 21 out of the 100 payments in the form of direct debits, and their share in the total value was only 3.9%.

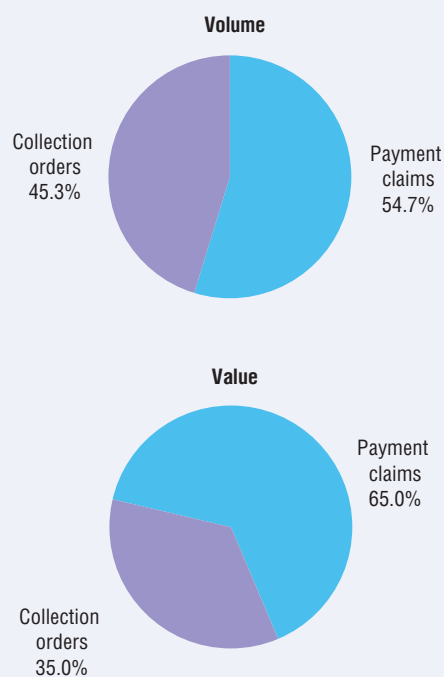
About a half of the orders in the form of direct debits (both in volume and value) were submitted to credit institutions electronically.

With a generally low interest of population in using the direct debit instrument<sup>34</sup>, confirmed by the results of a joint study of the Bank of Russia and the NAFS, there are certain differences among socio-demographic groups. For example, in the Far Eastern Federal District the percentage of respondents who reported their experience of making payments and transfers using direct debits was the largest (10.3%), whereas in the Volga and Urals Federal Districts, none of those polled has ever used the direct debit service.

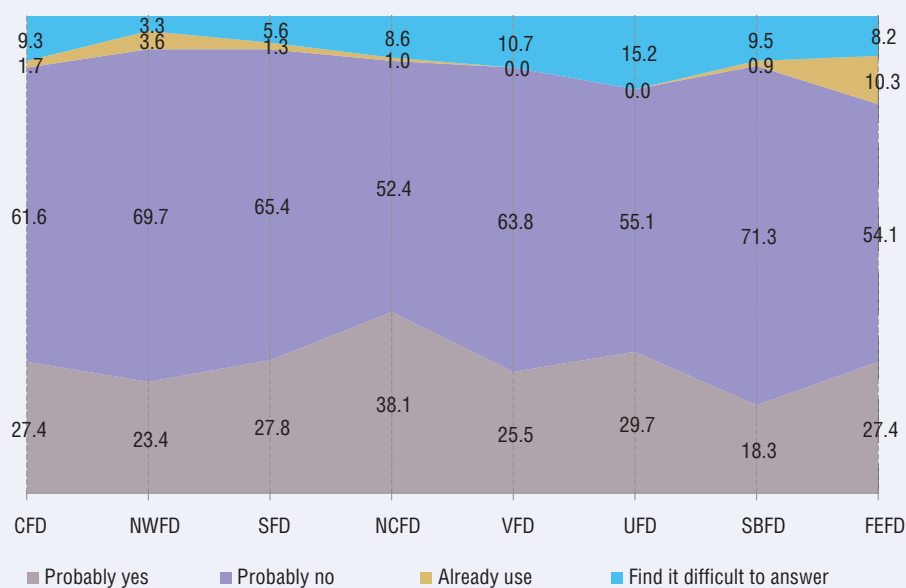
Most of the users of the direct debit service, as the study showed, were citizens aged from 25 to 35 (2.3%). Representatives of the same age group expressed the greatest willingness to use this payment instrument in the future (34.1%). Among younger respondents there were also a lot of potential users (33.6%). Survey participants aged older than 44 showed much less interest in direct debits, and in the age group of 60 and older only every tenth was ready to use this service.

Among the purposes of payments and transfers that respondents are willing to make through direct debiting of their bank accounts, the majority (72.7%) indicates payments for utilities and electricity, slightly more than a half (53.2%) mentioned payments for mobile communications services, 46.5% of respondents are ready to pay in such a way for the Internet and commercial TV, 40.6% – for fixed telephone communication. Over a fifth of respondents agree to use direct debits for mandatory payments (23.3%) and payments on bank loans and other liabilities (20.2%).

**Chart II.25.** Structure of direct debit payments in 2013, by type of settlement documents



<sup>34</sup> In accordance with Russian legislation, direct debiting is defined as non-cash settlements in the form of a funds transfer on the funds recipient's demand.

**Chart II.26.** The willingness of respondents to use direct debits, by federal district, %

Almost a quarter of respondents (22.2%), answering the question about the maximum amount of funds they were ready to transfer through direct debiting, named an amount ranging from 1,000 to 5,000 rubles; more than a half of the respondents (54.8%) could not name an exact amount.

## II.2.4. E-money

When the Federal Law No. 161-FZ came into effect in 2011, the Russian Federation legislation defined for the first time the scope of the legal regulation of e-money transfers, the entities of the national payment system participating in these relationships, and also the concept of e-money.

**E-money is the money that has been earlier provided by one person (the grantor) to another person, taking into account the information on the amount of funds provided without opening a bank account (to the obligor) for the execution of liabilities of the grantor to third parties and in respect of which the grantor has the right to submit orders exclusively through electronic means of payment.**

According to the law, the transfer of e-money without opening a bank account may only be effected by an e-money operator, with the latter being a credit institution. Settlements by means of an e-money transfer are a form of non-cash settlements.

E-money transfer is effected on the basis of funds provided earlier by customers of the e-money operator, including funds

provided by legal entities and individual entrepreneurs in favour of customers of the e-money operator (both in rubles and foreign currency) that are recorded without opening a bank account, on the basis of orders of the e-money operator's customers<sup>35</sup>, transferred by them using exclusively the electronic means of payment. In this case, the e-money operator is prohibited from providing the customer with the funds for increasing the customer's e-money balance, as well as accruing interest on the e-money balance.

To make an e-money transfer one must have an electronic means of payment (EMP).

**EMP is a means or method allowing customers of e-money operators to make, certify, and transmit orders for the transfer of funds within the framework of the applicable forms of non-cash payments using information and communications technologies and electronic media (payment cards).**

**Table II.4.** Similarities and differences of EMP types for e-money transfers

	Personalised EMP	Non-personalised EMP		Corporate EMP
<b>Payer</b>	Individual	Individual	Individual	1. Legal entity 2. Individual entrepreneur
<b>Payer identification</b>	Full identification	Simplified identification	Without identification	Full identification
<b>Payee</b>	1. Individual who underwent full or simplified identification 2. Legal entity 3. Individual entrepreneur	1. Individual who underwent full or simplified identification 2. Legal entity 3. Individual entrepreneur	1. Legal entity 2. Individual entrepreneur	Individual who underwent full or simplified identification
<b>Maximum amount of e-money balance at any time</b>	600,000 rubles	15,000 rubles when transferring e-money in favour of individuals; 60,000 rubles when transferring e-money in favour of legal entities, individual entrepreneurs	15,000 rubles	600,000 rubles
<b>Total amount of e-money transfer during a calendar month</b>	Unrestricted	No more than 40,000 rubles (when transferring e-money in favour of individuals); no more than 200,000 rubles (when transferring e-money in favour of legal entities, individual entrepreneurs)	No more than 40,000 rubles	Unrestricted
<b>Currency of e-money transfer / balance</b>	Rubles / foreign currency	Rubles	Rubles	Rubles / foreign currency
<b>Withdrawal of e-money balance (or its part)</b>	1. To a bank account 2. Fulfilling the obligations to a credit institution 3. A transfer without opening an account 4. Cash withdrawal	1. To a bank account of a legal entity, individual entrepreneur, the same individual 2. Fulfilling the obligations to a credit institution 3. Cash withdrawal (using only prepaid cards up to 5,000 rubles within a calendar day and up to 40,000 rubles within a calendar month)	1. To a bank account of a legal entity, Individual entrepreneur 2. Fulfilling the obligations to a credit institution 3. Cash withdrawal (using only prepaid cards: up to 5,000 rubles within a calendar day and up to 40,000 rubles within a calendar month)	To its own bank account

<sup>35</sup> Customers of e-money operators may be individuals, legal entities and individual entrepreneurs.

An e-money transfer is carried out by the e-money operator through simultaneous acceptance of the customer's order, debiting of the e-money balance of the payer and crediting of the e-money balance of the payee by the amount of e-money transferred, and in case of an e-money transfer using a prepaid card – within a period of no more than three business days after the acceptance of the customer's order by the e-money operator.

An e-money transfer is carried out with an identification of the customer (individual, legal entity or individual entrepreneur), a simplified identification of an individual customer or without the identification of an individual customer in accordance with the Federal Law No. 115-FZ, dated August 7, 2001, 'On Countering the Legalisation (Laundering) of Criminally Obtained Incomes and the Financing of Terrorism' (hereinafter, the AML/FT Law).

A customer, that is a legal entity, may use only corporate EMP (presuming a full identification), on which the e-money balance at the end of business day of the e-money operator shall not exceed 600,000 rubles or an amount in foreign currency equivalent to 600,000 rubles at the official exchange rate of the Bank of Russia<sup>36</sup>. The indicated EMP can be used to transfer e-money only in favour of individuals who use a personalised EMP or in respect of whom the e-money operator has conducted a simplified identification.

An individual customer may use a personalised EMP (presuming a full identification), the e-money balance on which at any time shall not exceed 600,000 rubles or an amount in foreign currency equivalent to 600,000 rubles at the official exchange rate of the Bank of Russia<sup>37</sup>. It should be noted that such EMP may be used for transfer of e-money to legal entities, individual entrepreneurs and individuals (except for individuals in respect of whom an identification or a simplified identification was not carried out) without restrictions on the total amount of the e-money transferred.

If a simplified identification of an individual customer has been carried out, this customer may use non-personalised EMP for e-money transfer to another individual (provided that he/she underwent an identification or a simplified identification) or in favour of legal entities and individual entrepreneurs. It should be noted that in the case of using such an EMP for making an e-money transfer in favour of legal entities and individual entrepreneurs, the transfer is carried out under the condition that the e-money balance does not exceed 60,000 rubles (foreign currency balances shall be disallowed), and the total amount of e-money transferred shall not exceed 200,000 rubles within a calendar month.

In case of a failure to identify an individual customer, this customer may only use non-personalised EMP, on which the

<sup>36</sup> Before August 1, 2014 – 100,000 rubles.

<sup>37</sup> See footnote 36.

e-money balance shall not exceed 15,000 rubles (foreign currency balances shall be disallowed), and the total amount of e-money transferred shall not exceed 40,000 rubles within a calendar month. It should be noted that an individual may only use this EMP for e-money transfers to legal entities and individual entrepreneurs, since the Federal Law No. 161-FZ prohibits its use for e-money transfers to another individual or for receiving the e-money transferred by another individual.

In addition to e-money transfers, the Federal Law No. 161-FZ provides for a transfer of e-money balances. Thus, for individual customers using non-personalised EMP (excluding prepaid cards), and for customers, that are legal entities, issuing of e-money balances in cash is prohibited; these balances may be transferred only to a bank account and in case of legal entities – only to their bank account. E-money balances may be issued in cash in the case of prepaid cards of individual customers, whose issuance does not require customer identification pursuant to the AML/FT Law, provided that the total amount of issued cash does not exceed 5,000 rubles during a calendar day and 40,000 rubles during a calendar month. For individual customers using personalised EMP e-money balances may be issued in cash or transferred to a bank account or transferred without opening a bank account.

Following the procedure and in cases stipulated by the legislation of the Russian Federation, e-money transfers using corporate and personalised EMP may be suspended by a decision of an authorised government body and e-money balances of customers using these EMP can be forfeited.

In 2013, in order to expand payment services accessibility and support the development of new payment instruments the Bank of Russia took steps towards raising the awareness of credit institution customers regarding various aspects of the production of payment services. For example, in order to facilitate the expansion of EMP (such as e-wallets and prepaid cards) in the implementation of non-cash settlements and to increase the individual customer awareness regarding the specifics of providing the e-money transfer services the Bank of Russia has developed a memo 'On E-money', which was published in the Bank of Russia Bulletin<sup>38</sup> and also recommended for placement on the websites of credit institutions.

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<sup>38</sup> See: [www.cbr.ru/publ/Vestnik/ves140115002.pdf](http://www.cbr.ru/publ/Vestnik/ves140115002.pdf).

## Box 8. Virtual currencies schemes: bitcoin

Currently, the most famous and popular cryptocurrency is bitcoin<sup>1</sup>.

**Cryptocurrency is a conventional money unit which ownership rights shall be confirmed and transferred by the users (individuals or legal entities) in a decentralised manner (without involving, for example, an operator, a processing center, etc.) using software from the Internet. Computing capacity provided by the users is used for the functioning of cryptocurrencies.**

Software for all the cryptocurrencies issue is based on an open source initial code, which implies free access to the code and the ability to change it. Cryptocurrencies allow for modifications of the program code, but for any change to enter into force it should be supported by users representing in total at least 51% of the computing capacity.

Bitcoins are issued as compensation to persons who provided their computing capacity for the functioning of bitcoin (mining). In addition to mining, bitcoins may be obtained with the consent of the parties by their transfer in exchange for cash, as well as for goods (work, services).

The maximum volume of bitcoins, which may be issued, is 21,000,000, with the rate of issuing (amount of compensation for mining per unit of time) gradually going down.

Transfer of bitcoins (transfer of ownership rights) is carried out in several stages:

1. The user creates a special message, which indicates the specific identification numbers belonging to him and the recipient, the amount of transferred bitcoins, and, if desired, additional parameters.

**Users get special identification numbers for free, one user can concurrently have more than one active special identification number.**

2. The message is protected from introduction of changes using cryptographic methods.

3. The message becomes publicly available and waits for processing by miners.

4. When processing a message the miners check the feasibility of its execution, then they combine several messages into a block and using cryptographic mechanisms, which require large processing capacity, protect this block from changes.

Each block combining messages processed by miners over a certain period of time contains a reference to the previous block, i.e., the blocks form a chain.

Since the information stored in blocks is publicly available, by using the block chain one can keep track of all the transactions performed using each special identification number or the history of transfers of rights of ownership to bitcoins.

### Description of the bitcoin community

*Users* are persons owning bitcoins and using them for conducting transactions (payment for goods, work and services).

*Miners* are persons providing the computing capacity for functioning of bitcoin. Currently miners use specially designed devices for mining.

*Investors* are individuals owning bitcoins for the purpose of deriving profit from the growth of their exchange rate or owning shares in companies whose activities are associated with bitcoins.

*Sellers* are enterprises of trade and services that accept bitcoins as payment for work, goods and services. A part of the sellers accept bitcoins directly, while another part involves special organisations – intermediaries that exchange bitcoins for cash, as a result of which a company of trade and services receives cash.

*Exchanges* are companies engaged in the operation of exchanges on the Internet that allow for the purchase/sale of bitcoins and other cryptocurrencies (e.g., dogecoin, litecoin, etc.) for cash.



*Speculators* are persons engaged in trading with bitcoins on exchanges to derive profit from changes in the exchange rates of bitcoins and other cryptocurrencies.

*Software manufacturers* are companies engaged in the development and distribution of software related to the operation of bitcoin (for example, software for bitcoin-ATMs).

*Manufacturers* of technological hardware are companies engaged in the development and distribution of technological hardware needed for the functioning of bitcoin (for example, equipment for mining, bitcoin-ATMs and so on).

In addition, one person can play multiple roles in the bitcoin community.

### Attitude to bitcoin and cryptocurrencies

Positions of foreign financial regulators with regard to bitcoin vary significantly, including warnings about the risks of using cryptocurrencies, measures regulating (licensing) the activities of intermediaries, as well as banning the execution of operations with cryptocurrencies. In all these cases bitcoin is not recognised as a legal tender or cash<sup>2</sup>.

The problem of the spread of virtual currencies is in the focus of attention of certain central banks and international organisations. In particular, a CPMI article makes a conclusion based on the example of bitcoin that virtual currencies do not have a unique definition: they can be considered as money, goods, financial instruments and a payment mechanism.

### Bitcoin technology development

Currently there are payment cards in the market that allow performing operations with bitcoin. According to the information available, a foreign bank issues the mentioned cards within the framework of an international payment system. Available funds are recorded in bitcoin. When making a payment for goods and services or when withdrawing cash, the card is debited for the amount of bitcoins corresponding to the amount of transaction at the exchange rate of one of the exchanges.

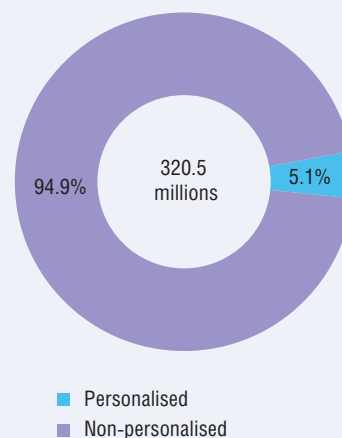
<sup>1</sup> Currently there are many different cryptocurrencies, most of which are modifications of bitcoin.

<sup>2</sup> The Bank of Russia website contains information about the use of virtual currencies, in particular bitcoin, for conducting transactions ([http://www.cbr.ru/press/pr.aspx?file=27012014\\_1825052.htm](http://www.cbr.ru/press/pr.aspx?file=27012014_1825052.htm)).

E-money is gaining popularity as a means of payment, as the remote technologies develop. In 2013, the number of e-money operators more than doubled (to 82), of which 77 credit institutions issued non-personalised EMP, 40 credit institutions – personalised EMP, and 16 – corporate EMP. During the year, they issued 320.5 million EMP for e-money transfers. In 2013, 57 systems for e-money transfers operated in Russia, the five largest of them accounted for 86.5% of all the issued EMP for e-money transfers, as well as for 54.8 and 68.2% (in volume and value) of payments involving their use.

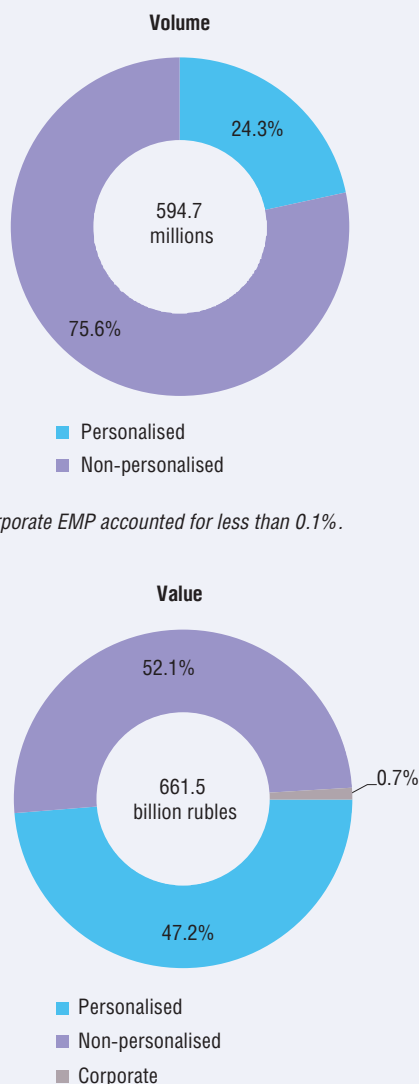
In 2013, EMP were used for e-money transfers in 594.7 million transactions worth 661.5 billion rubles (6.2% of the total volume and just over 1% of the total value of non-cash payments of credit institution customers).

**Chart II.27.** Structure of issued EMP for e-money transfers in 2013



Corporate EMP accounted for less than 0.01%.

**Chart II.28.** Structure of e-money transfers in 2013, %



According to international statistics<sup>39</sup>, in 2013, in operations with e-money (564.4 million transfers amounting to \$18.6 billion) Russia was in the lead in terms of value among all the CPMI member countries (Italy ranked second – \$16.3 billion), and in terms of volume it was inferior only to Singapore (3,085.3 million transfers). Average indicators in the CPMI member countries, excluding the above-mentioned ones, amounted to 77.6 million in volume and \$760.7 million in value.

Non-personalised EMP were most actively used; they accounted for 75.6% in terms of volume and 52.1% in terms of value of the transactions. The share of transactions with personalised EMP was 24.3 and 47.2% respectively. The share of corporate electronic means of payment was negligible. The average amount of an e-money transfer using a non-personalised, personalised and corporate EMP was 800; 2.2 thousand and 23.9 thousand rubles.

In 2013, the level of payment services concentration in the segment of e-money transfers remained rather high. The five largest banks accounted for 86.2% of the total volume of issued EMP for e-money transfers. In terms of volume of e-money transfers the concentration factor was 53.9%, in terms of value – 66.4%.

A joint study of the Bank of Russia and the NAFS showed that only 16 out of 100 respondents had used e-money at least once when making payments, while 7.8% of them did it occasionally (but not less than once every six months), 6.7% – several times a month and only 1.8% – more than a few times a month. 17% of the respondents expressed their intention to use e-money for payments.

About 67% of the respondents stated that they did not use EMP explaining this by the following reasons: absence of need (40.4%), distrust of this payment instrument in terms of reliability and safety (29.3%), lack of sufficient knowledge about the possibility of such operations (26.3%).

In 2013, almost 90% of the issued EMP for e-money transfers fell on prepaid cards (289.7 million cards). Out of every 100 e-money transfers 77 fell on transactions using prepaid cards, which represents 80.8% of the total value of e-money transfers. During the year, 458.9 million of such transactions were held amounting to 534.2 billion rubles, most of which were non-cash transactions (99.7 and 97.5% of the total volume and value). The share of the transfers of balances issued in cash in the total volume of operations using prepaid cards was 0.3% and in the total value – 2.5%.

According to a study of the Bank of Russia conducted jointly with the NAFS, among the operations using EMP for e-mon-

<sup>39</sup> See: CPMI publication 'Statistics of Payment, Clearing and Settlement Systems in Selected Countries' for 2013 ([www.bis.org/publ/cpss112.pdf](http://www.bis.org/publ/cpss112.pdf)).

ey transfers, payments for mobile communication services are the most popular (59.4% of respondents). Then come payments for the Internet or commercial TV (41.3%), payments for goods and services ordered via the Internet or catalogues (34.1%), utilities and electricity (27.5%), payments for fixed telephone communication (21.6%), funds transfers to another e-wallet or bank account (20.6%).

### Box 9. Electronic payments in emerging markets<sup>1</sup>

According to the International Monetary Fund data<sup>2</sup>, GDP in the emerging markets in 2013 reached \$28.6 trillion, which was 38.7% of the global index. In 2011, an overwhelming volume (77%) of non-cash payments were made in the advanced markets, but the rate of growth (as compared with the previous year) in the volume of such payments in the emerging markets (18.7%) was significantly higher than that of the advanced markets (6.2%)<sup>3</sup>.

In 2013, the situation in the market was characterised by an increase in the volume of non-cash payments, accelerated growth of e-commerce, and low accessibility of banking services to the global population.

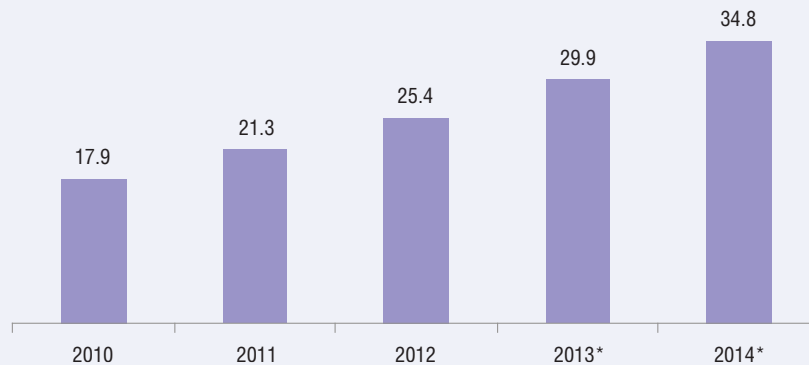
#### The growth of non-cash payments

Under the influence of economic and behavioural changes, the world has experienced a rapid growth in the volume of non-cash payments at both the regional and global levels. However, the nature of this growth varied depending on regional specifics. The most significant changes, brought about by urbanisation and a growing middle class, were observed in the emerging markets. The Asia-Pacific region remained the market of non-cash payments with the highest growth rates (by 9.5% annually). At the same time, the total annual growth of Asian emerging economies amounted to 20%. One of the fastest growing payment card markets was Vietnam, the annual growth rate of which in 2008-2012 was 37%.

#### Acceleration of e-commerce

E-commerce is a vast and rapidly growing market. As smartphones and tablets, Internet and mobile access, and electronic payments became widespread, the global retail e-commerce grew by 21% in 2012 and for the first time reached \$1 trillion. The rate of growth of this segment in the Asia-Pacific region is even more significant: a 30% increase was projected in 2013.

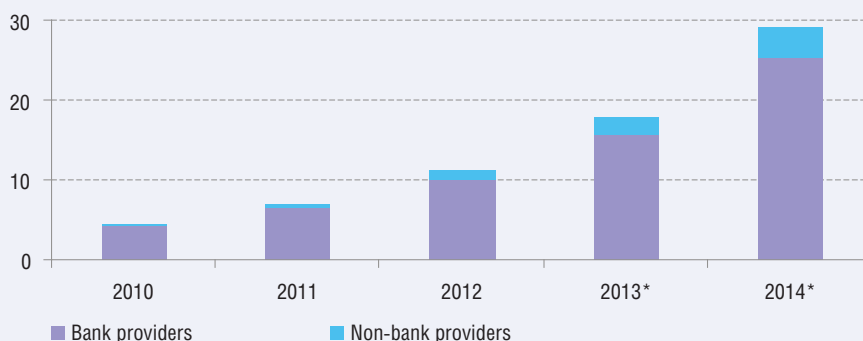
Total number of e-commerce transactions in the world in 2010-2014, billions



\* Forecast.

Source: World Payments Report 2013<sup>4</sup> by Capgemini and the Royal Bank of Scotland.

Total number of mobile payments in the world in 2010–2014, billions



\* Forecast.

Source: World Payments Report 2013 by Capgemini and the Royal Bank of Scotland.

### Low supply of global population with banking services

According to expert estimates, in 2013, 50% of the adult population in the world was not supplied with banking services, i.e. they did not have any formal relationship with banks. In emerging market countries this figure was 59%, in South Asia – 67%, and in East Asia – 45%.

In 2013, the main factors influencing the growth in electronic payment volume, in addition to the demographic factor, were an increased number of people with an average level of per capita income, financial inclusion programmes, global mobility, and cross-border remittances.

### Increasing share of middle class in society

As history shows, the purchasing power increases with the growing share of the middle class. This in turn creates a need for a more complex payment infrastructure. A long period of economic growth has led to the emergence of a new group of middle class consumers having access and actively using electronic payment systems. As a result, the use of credit and debit cards at points of sale increases. Experts suggest that the number of debit cards will grow faster than that of credit cards, especially in the markets with a high credit risk.

### Financial inclusion

Financial inclusion of less financially well-off is a necessary condition for sustainable economic development and growth in the number of electronic payments in the Asia-Pacific region and other emerging markets.

In 2013, there was no banking system in many rural areas; while in the areas, where it was present, a gradual migration from cash to electronic payments was observed. Governments stimulated the use of electronic payments, for example, by distributing the government annuity payments, as well as providing access to small-scale credit to households. In some of these projects there is no need to open a bank account to receive funds. Thus, the Government of India has introduced prepaid health cards for citizens below the poverty line and migrant workers, so that they can more efficiently receive medical services. This programme is one of the largest in the world, while it uses absolutely no cash.

### Global mobility and cross-border remittances

With an increasing number of people travelling the globe for work (international labor migration) the need in services for funds transfer from one country to another is on the rise. The world has already witnessed the replacement of paper payment orders with wire transfers, but now there is a shift to mobile payments. At the same time, some factors may cause a slowdown in the adoption of electronic payments.

### Regulators

The introduction of electronic payments may contribute, on the one hand, to the acceleration of economic growth and, on the other hand, to the rising level of fraud. Regulators often prefer the security to convenience.

In addition, national legislation in certain cases in order to protect national companies may restrict the activities of international companies, allowing them to function only as providers of technologies and infrastructure.

### Financial business model

Due to the low business margin, investments in the infrastructure of emerging market economies shall be offset by a high turnover rate, which is not always possible. Moreover, when new types of payments are being introduced, it is sometimes difficult to assess the business model and the methods of making profit. In order the introduction be a success, a variety of factors shall be taken into account: time of launch in the market, cooperation with well-known brands, experience of existing market players.

<sup>1</sup> According to the article 'E-Payments in Emerging Markets' (Journal of Payments Strategy & Systems. 2014. Vol. 7. No. 4. P. 337–343).

<sup>2</sup> See: World Economic Outlook Database. April 2014.

<sup>3</sup> See: World Payments Report 2013. Capgemini, the Royal Bank of Scotland.

<sup>4</sup> Report on non-cash payments in the world in 2013.

## II.2.5. Other instruments

### Cheques

Cheques hold the smallest share in the structure of non-cash payment instruments. In 2013, 4,700 payments totalling 17.4 billion rubles were made using cheques, most of which fell on the credit institutions' own payments (52.0% in volume and 89.3% in value). The share of payments by legal entities other than credit institutions in the total volume and value of payments with cheques amounted to 37.7 and 6.8% respectively, that of payments by individuals – 10.3 and 3.8%. As compared with 2012, the volume of payments with cheques increased by 7.6% and the value – 2.5 times due to the growth in the average amount of one cheque from 1.6 million rubles to 3.7 million rubles. Cheques were used only in half of the federal districts (the Far Eastern, North Caucasus, Urals and Central), most actively – in the Moscow Region (91.2% in volume and 99.7% in value).

### Bank orders

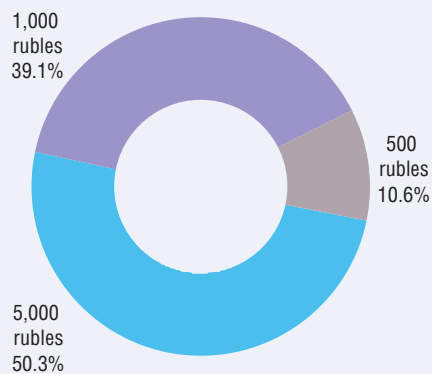
Payments using bank orders increased over the year by 17.0% in volume and by 10.7% in value reaching 1.7 million transactions worth 6.7 trillion rubles. This settlement document is used mainly in handling the operations of a regular and massive character and usually for small amounts (an average amount of payment in 2013 stood at 3,800 rubles). In 2013, almost 87 out of 100 own payments of credit institutions were made using these orders, in value they accounted for 10.0%. About 70% of the payments with bank orders (both in volume and value) were carried out on the basis of electronic orders.

## II.3. Cash Means of Payment

As of end of 2013, the Bank of Russia banknotes and coin, including coin made of precious metals, worth 8,315.0 billion rubles (including cash at the Bank of Russia vaults) were in circulation, of which banknotes accounted for 8,246.6 billion rubles (6.4 billion sheets), coin<sup>40</sup> – for 68.4 billion rubles (57.2 billion circles), and coin made of precious metals – for 0.3 billion rubles. Banknotes accounted for 99.2% of the total value of cash in circulation and coin – for 0.8%. As for the total number of banknotes and coin, the former made up 10.1% and the latter 89.9%. The total value of the Bank of Russia banknotes and coin, including coin made of precious metals, increased in 2013 by 639.6 billion rubles, or by 8.3%, with banknotes increasing by 630.4 billion rubles, coin – by 9.2 billion rubles. The number of banknotes decreased by 0.06 billion sheets, while the number of coin increased by 3.1 billion circles.

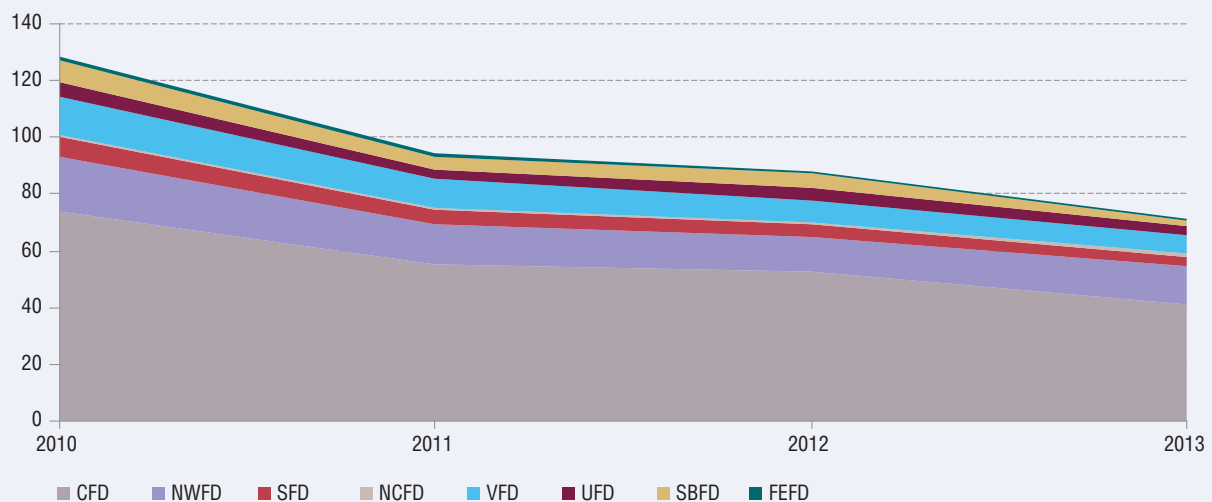
In 2013, like in the previous period, negative dynamics of the number of counterfeit banknotes were observed. In 2013, 71,4 thousand counterfeit the Bank of Russia banknotes and coin were found, removed from the payment turnover and transferred to the Russian police, which is 18.9% less than in 2012. It should be noted that the share of counterfeit 1,000-ruble banknotes in the total number of forgeries decreased in 2013 and stood at 38.8% (60.2% in 2012) and the share of counterfeit 5,000-ruble banknotes increased and amounted to 49.8%.

**Chart II.29.** Denominations of counterfeit the Bank of Russia banknotes detected in 2013



*The share of 100-, 50- and 10-ruble banknotes, as well as 10- and 5-ruble coins amounted to less than 1%.*

**Chart II.30.** Detection of counterfeit the Bank of Russia banknotes and coin in 2010–2013, by federal district, thousands



<sup>40</sup> Excluding coin made of precious metals.

The largest number of counterfeit banknotes was detected in the Central, Northwestern and Volga Federal Districts. A new type of counterfeit banknotes has been identified, they are manufactured as follows: nine banknotes are cut and their fragments are glued into ten banknotes using a thin sticky tape. The size of the damaged banknotes is 157x65 mm (the size of genuine banknotes – 157x69 mm), but they are accepted by ATMs and POS terminals to be credited to accounts and as payments. In this connection, some banks stopped accepting 5,000-ruble banknotes in their terminals.

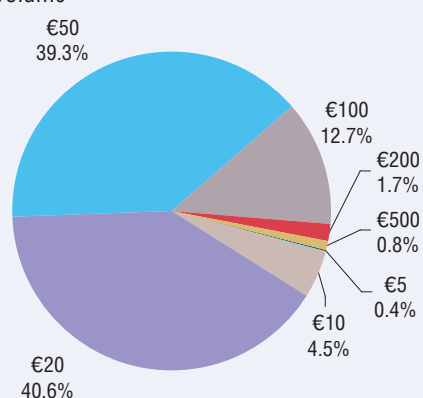
**In the European Union, 670 thousand counterfeit banknotes (euro) were revealed in 2013, which is 26.2% more than in 2012. The share of counterfeit banknotes and coin in the total volume of money in circulation in the European Union was insignificant, given that there were 15 billion genuine banknotes in circulation. The largest number of forgeries were found in banknotes of 20, 50 and 100 euros<sup>41</sup>. The largest number of counterfeit euros (98%) were discovered in the euro area, 1.5% – in the member countries of the European Union outside of the euro area and 0.5% – in other countries.**

In 2013, the value of cash circulation of the Bank of Russia branches and credit institutions (hereinafter referred to as banks) increased by 10.9% year-on-year and reached 92.0 trillion rubles. This included 24.2 trillion rubles worth of cash receipts and cash withdrawals through ATMs and POS terminals of credit institutions.

Total receipts of banks' cash offices in 2013 amounted to 40.8 trillion rubles, which is 7.6% more than in 2012. Most of the receipts were proceeds from sale of goods (30.9%). A significant share in the total receipts was made by receipts to household savings accounts, which, compared with 2012, increased by 9.8% and receipts of funds to household accounts. The most rapid growth was characteristic of proceeds from government and other securities and bills transactions (by 36.5% compared with 2012), loan receipts and credit repayments (by 21.4%), as well as receipts of funds to household accounts (by 18.2%).

The total value of cash given out by banks' cash offices in 2013 amounted to 27.0 trillion rubles. Withdrawals from deposit accounts of individuals accounted for the largest share of total withdrawals (44.7%). Withdrawals from household bank accounts increased by 13.7% and amounted to 15.5% of total withdrawals. The highest growth rate was characteristic of withdrawals for government and other securities and bills trans-

**Chart II.31.** Denominations of counterfeit euros detected in 2013, % of the total volume



<sup>41</sup> According to the European Central Bank data ([www.ecb.europa.eu/home/html/index.en.html](http://www.ecb.europa.eu/home/html/index.en.html)).



actions (increased twofold); the most significant reduction was characteristic of withdrawals for purchase of agricultural products (by 20.1%).

The value of cash receipts through ATMs and POS terminals of credit institutions totalled 5.0 trillion rubles, which is 40.9% more than in 2012. The value of cash withdrawals through ATMs amounted to 19.2 trillion rubles, an increase of 19.5% compared to 2012.

The value of receipts from bank payment agents, bank payment sub-agents in 2013 amounted to 0.1 trillion rubles (an increase of 38.2% as compared with 2012). The value of receipts from payment agents and payment sub-agents in 2013 increased by 21.9% to 1.1 trillion rubles.

**Table II.5.** Main sources of cash receipts in 2013

Receipts	Value, trillions of rubles	Share in total value, %	Growth rate, %
Proceeds from sale of goods	12.6	30.9	2.5
Proceeds from provision of paid services (work performed)	4.1	9.9	12
Receipts of taxes, duties, insurance payments, penalties, customs payments, individual self-taxation payments, contributions and insurance premiums	0.7	1.6	8.4
Receipts from individuals for money remittances to other individuals	0.5	1.2	-4.8
Loan receipts and credit repayments	2.0	4.9	21.4
Proceeds from real estate transactions	0.6	1.4	3.7
Receipts of funds to household savings accounts	9.7	23.7	9.8
Receipts from Federal Communications Agency organisations	0.2	0.4	-6.2
Receipts of funds to individual unincorporated entrepreneur accounts	2.6	6.4	-0.1
Proceeds from government and other securities and bills transactions	0.5	1.4	36.5
Proceeds from sale of cash foreign currency to individuals	1.9	4.6	-1.5
Receipts of funds to household accounts	4.9	12.1	18.2
Other receipts	0.6	1.4	2.0

**Table II.6.** Main purposes of cash withdrawals in 2013

Withdrawals	Value, trillions of rubles	Share in total value, %	Growth rate, %
Wages, social benefits and student grants withdrawals	1.9	7.0	-8.4
Withdrawals for expenses unrelated to wage fund and social benefits	0.2	0.9	-2.0
Withdrawals for purchase of agricultural products	0.1	0.3	-20.1
Pensions, allowances and insurance indemnities withdrawals	0.5	1.8	12.9
Money remittances received (without opening an account by a recipient)	0.5	1.7	3.4
Loans and credits extended	1.5	5.5	25.4
Withdrawals from household accounts	12.1	44.7	5.7
Payments to Federal Communications Agency organisations	2.6	9.5	2.5
Withdrawals from individual unincorporated entrepreneur accounts	0.6	2.2	-5.4
Withdrawals for government and other securities and bills transactions	0.5	1.8	2-fold
Withdrawals for purchase of cash foreign currency from individuals	1.1	4.0	11.0
Withdrawals from household bank accounts	4.2	15.5	13.7
Withdrawals for other purposes	1.4	5.2	-10.1



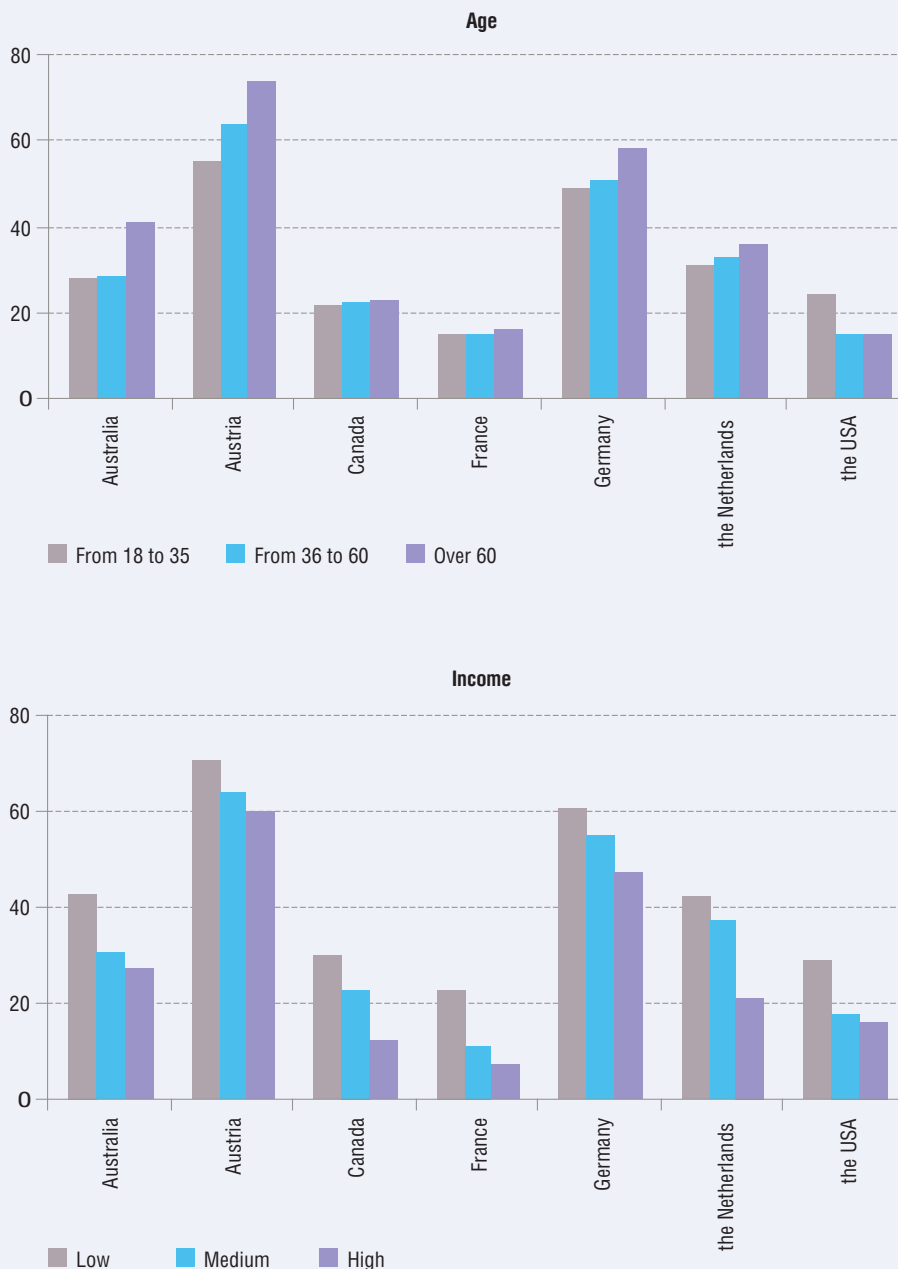
## Box 10. Cash payments abroad<sup>1</sup>

The use of cash for settlements remains at a high level in foreign countries: from 46 to 82% of payment transactions are conducted by cash. In value terms, cash payments constitute from 25 to 50% of the total value of operations performed, while the average value of a cash transaction is lower than the average value of a non-cash transaction. In addition, the frequency of cash usage for payments is inversely proportional to their value.

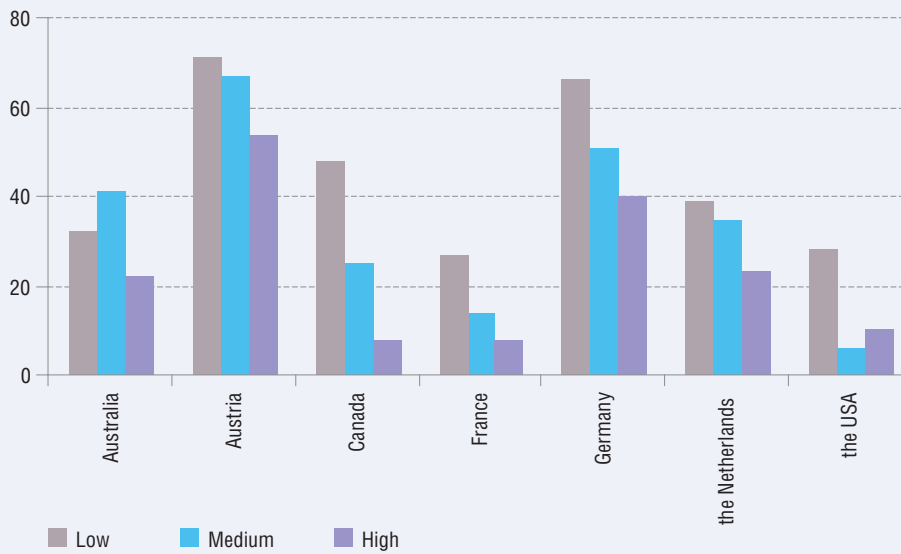
In addition to the value of operations and convenience of using a payment instrument, the use of cash depends on the demographic factors and the type of points of sale where the payment is made.

As the level of education and income grows, the level of using cash goes down, and as the age of consumers in almost all the surveyed countries increases, it goes up.

Level of using cash depending on age, income and education, % of total value of transactions



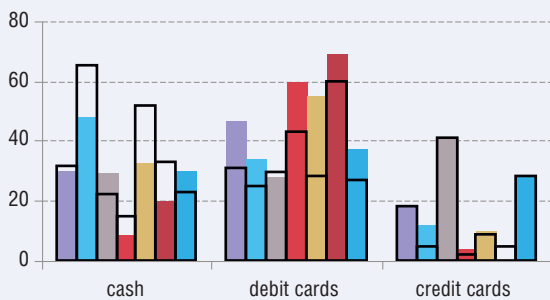
Education



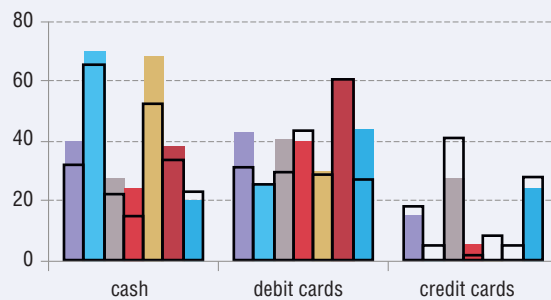
Similarly, the level of using cash varies depending on the location of payment. For example, when paying in public catering places customers in most cases prefer cash to debit and credit cards.

Level of using cash depending on location/activity, %<sup>1</sup>

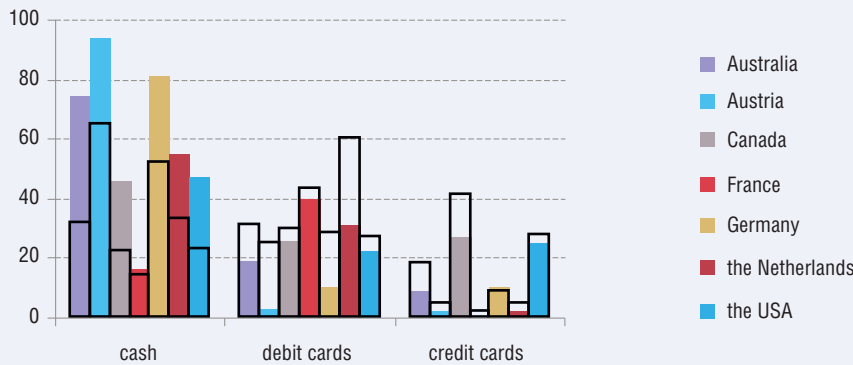
Gas stations



Restaurants/drinks



Groceries



<sup>1</sup> The shaded area shows the shares for the respective location/activity. The transparent bar depicts the shares for all customer expenditures.

Source: European Central Bank 'Use of Cash' (June 2014), in which the current state of the use of cash is considered using as examples Austria, France, Germany, the Netherlands, Canada, Australia and the USA.

## II.4. Devices of Credit Institutions Used in Effecting Payments

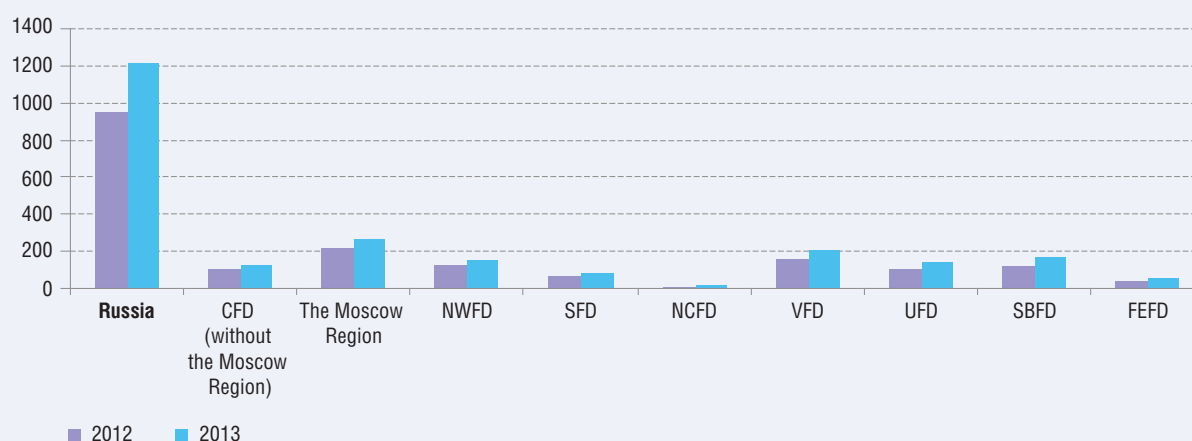
In 2013, Russia continued to develop the payment infrastructure used, inter alia, for remote banking. Devices of credit institutions used for making payments out of their offices – ATMs, POS terminals, imprinters and electronic terminals installed at points of sale, as well as remote terminal units – underwent not only quantitative but also qualitative changes.

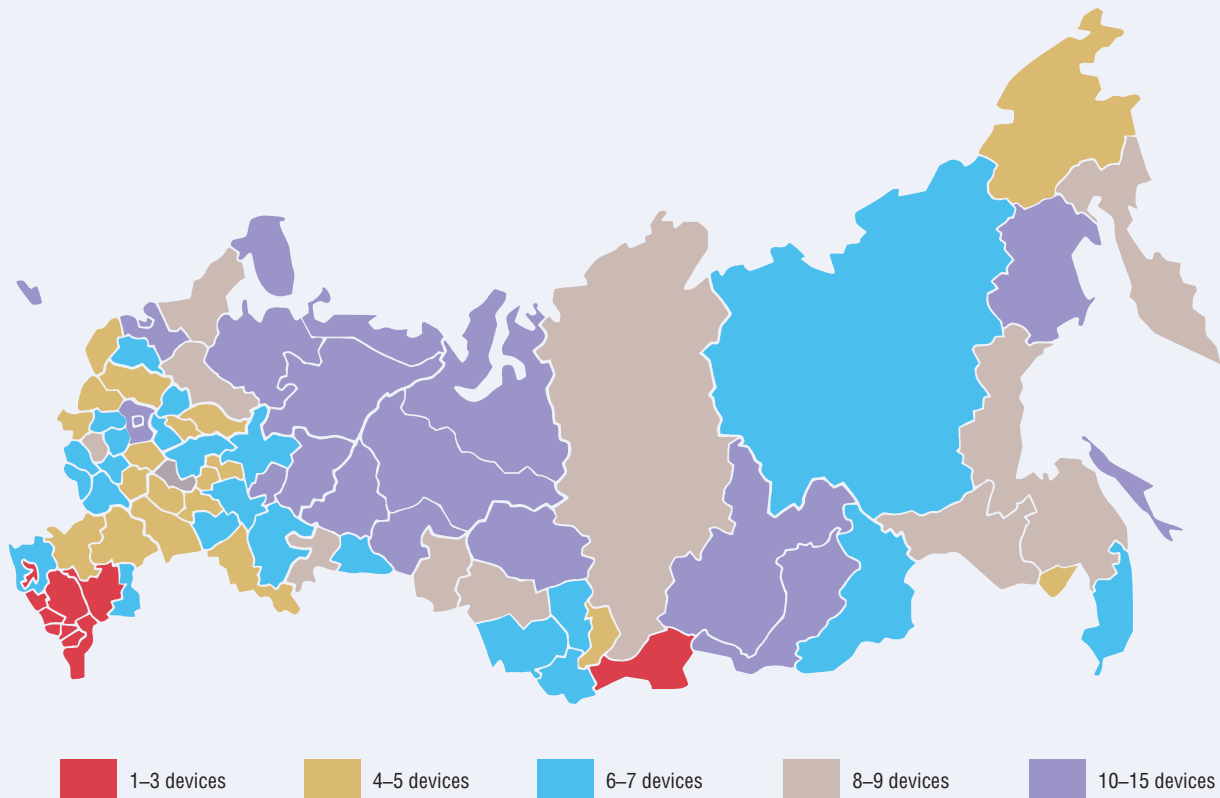
In 2013, the number of credit institutions' devices used for making payments increased, as compared with 2012, by 27.8% and amounted to 1.2 millions as of end of 2013. An increase in the rate of growth in this indicator was observed in all the federal districts. The highest values were registered in the Siberian and Urals Federal Districts (37.9 and 34.4% respectively), the lowest – in the Northwestern Federal District (21.5%).

In 2013, the accessibility of credit institutions' devices used by population for making payments varied by region from 1 to 15 units per 1,000 residents.

In 2013, the network of ATMs and POS terminals of credit institutions continued to expand. As of end of 2013, there were 237,400 ATMs and POS terminals of credit institutions on the territory of Russia, which is 7.5% more than a year earlier. The highest increase in the number of ATMs and POS terminals was observed in the North Caucasus (by 23.8%) and the Far Eastern (by 19.9%) Federal Districts, the lowest – in the Southern (by 5.9%) and Northwestern (by 6.1%) Federal Districts. In the Moscow Region, the number of ATMs and POS terminals of credit institutions decreased by 5.7%. The share of ATMs in the total number of devices used for payments in 2013 decreased slightly, as compared with 2012, to 19.5%.

**Chart II.32.** Number of payment devices of credit institutions, by federal district, thousands



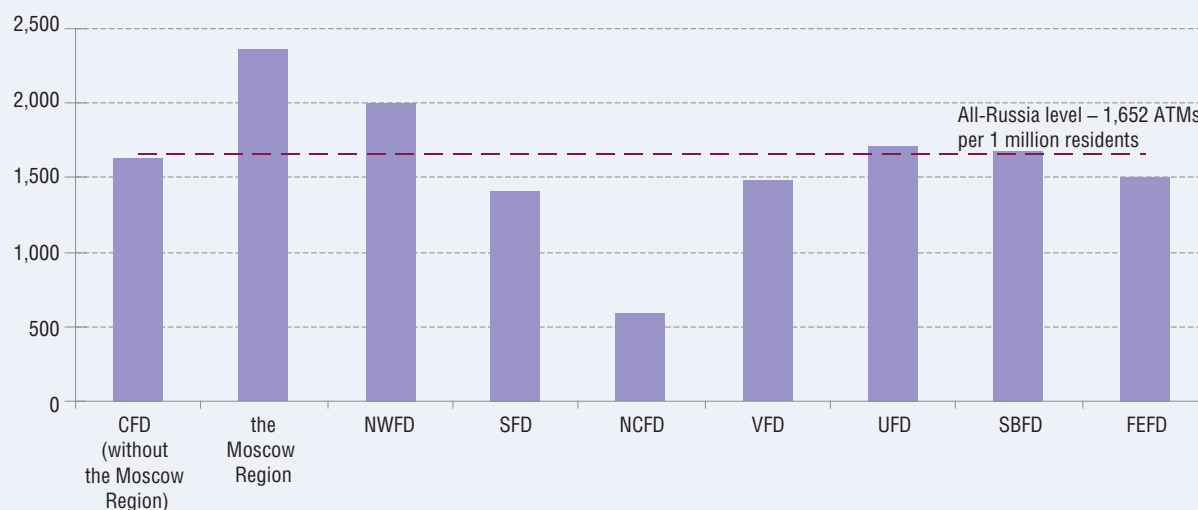
**Chart II.33.** Accessibility of devices by region (number of devices per 1,000 residents)

As the network of ATMs and POS terminals of credit institutions continued to develop, the level of their accessibility to the population increased by 7% to 1,652 units per 1 million residents. This indicator exceeded the nationwide value in the Northwestern (1,997), Urals (1,715) and Siberian (1,681) Federal Districts, as well as in the Moscow Region (2,366). In other federal districts it varied from 593 units in the North Caucasus Federal District to 1,631 in the Central Federal District (without the Moscow Region).

In 2013, users could make payments using 97.0% of credit institutions' ATMs. The number of ATMs with the function of payment for goods and services increased in 2013 by 11.3% to reach 183.6 thousand units.

The population's demand for devices with a cash-loading function (ATMs and POS terminals) remained at a high level in 2013. The number of such devices in 2013 amounted to almost 60% of the total number of ATMs and POS terminals. The highest growth rates of this indicator were observed in the Central (without the Moscow Region) and Siberian Federal Districts – 65.0 and 64.2% respectively.

The number of cash-loading devices increased by 66.2% in the Moscow Region. The number of POS terminals, as well as of remote terminal units amounted to 974.5 thousand in 2013 (an increase by 36% year-on-year). The rate of growth in this

**Chart II.34.** Accessibility of ATMs by federal district in 2013 (number of ATMs per 1 million people)

indicator ranged from 25.4% in the Northwestern Federal District to 44.9% in the Siberian Federal District.

**Payment devices used for payments are being actively modernised. ATMs and POS terminals, the functionality of which allows accepting coin, reading bar-codes, interacting with contactless payment cards and mobile devices, carrying out the identification by requesting a QR-code<sup>42</sup> through mobile communication applications, as well as selling banking products in individual packages (e.g., prepaid cards, investment coin, mobile electronic terminals)<sup>43</sup>, are being commissioned.**

The level of accessibility of electronic terminals to population increased in 2013 by 35% to 6,783 devices per 1 million residents. The largest number of POS terminals per 1 million residents was registered in the Urals (10,159) and Northwestern (8,991) Federal Districts. The Moscow Region preserved its leadership in the accessibility of electronic terminals – 11,180 devices per 1 million residents. Despite an increase by 35.7%, the level of electronic terminals accessibility to population of the North Caucasus Federal District in 2013 remained the lowest among all the federal districts – 946 devices per 1 million residents.

<sup>42</sup> QR-code (quick response code) is a two-dimensional bar-code, which provides information for quick recognition with the help of scanning equipment.

<sup>43</sup> See: [www.plusworld.ru](http://www.plusworld.ru).

**Mobile electronic terminals – electronic devices connected to mobile communications means and used to make payments – are becoming widespread. Such a terminal operates online by reading information from the magnetic strip or chip of a payment card and then sending it to the processing center via cellular communications channels. Thus, using mobile electronic terminals a non-cash payment can be effected almost anywhere and at any time<sup>44</sup>.**

The number of imprinters reduced significantly in 2013 both in Russia as a whole (by 45%) and in almost all the federal districts, except for the Far Eastern and Northwestern Federal Districts (an increase by 18.0 and 27.4% respectively).

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<sup>44</sup> See: [www.plusworld.ru](http://www.plusworld.ru).

## CHAPTER III. OTHER ENTITIES OF THE NATIONAL PAYMENT SYSTEM

### III.1. Activity of Bank Payment Agents and Payment Agents

In 2013, the services of bank payment agents and payment agents (hereinafter jointly referred to as agents) were in great demand with the population. Agents perform the intermediary functions when receiving payments from population and supplement the payment infrastructure of credit institutions.

During the year, the total value of individuals payments made through agents was 1,204.8 billion rubles, which is 23.6% more than in 2012. At the same time, 12% of payments were made via bank payment agents and 88% of payments – through payment agents.

Bank payment agents were involved by credit institutions for the provision of payment services such as:

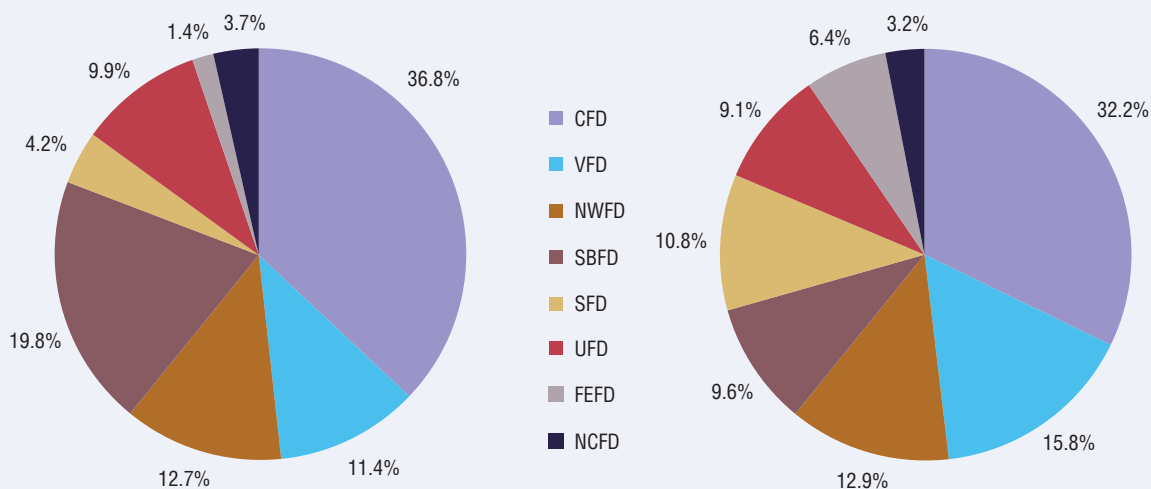
- receiving cash from an individual and (or) issuing cash to an individual, including with the use of payment terminals and ATMs;
- providing customers with EMP and a possibility of using these EMP in accordance with the terms set by the credit institution involving the bank payment agent;
- customer identification<sup>45</sup> or simplified identification of an individual customer for the purpose of effecting funds transfer without opening a bank account, including e-money, as well as providing EMP to the mentioned individual customer.

Payment agents received from individuals the money allocated for payment of goods (work, services), including government and municipal services.

The value of individuals payments made through bank payment agents increased compared with 2012 by 38.2% and in 2013 amounted to 141.5 billion rubles, and of those made through payment agents – by 26.4% to 1,063.3 billion rubles.

According to the results of a sample survey of agents' activities conducted by the Bank of Russia as part of the oversight of the national payment system, in 2013 individuals in half of the cases used the services of bank payment agents for the purpose of funds transfer without opening a bank account. Most often citizens resorted to services provided by payment agents to make utility payments (41.6%).

<sup>45</sup> In accordance with the requirements of the Russian Federation legislation on countering the legalisation (laundering) of criminally obtained incomes and the financing of terrorism.

**Chart III.1.** Volume of individuals payments received by payment agents, by federal district

Among the points of access to payment services provided by agents, cash offices dominated in number over self-service devices (ATMs and POS terminals). Among the infrastructure of bank payment agents cash offices accounted for 51.4% in the infrastructure of bank payment agents and 58.1% in the infrastructure of payment agents.

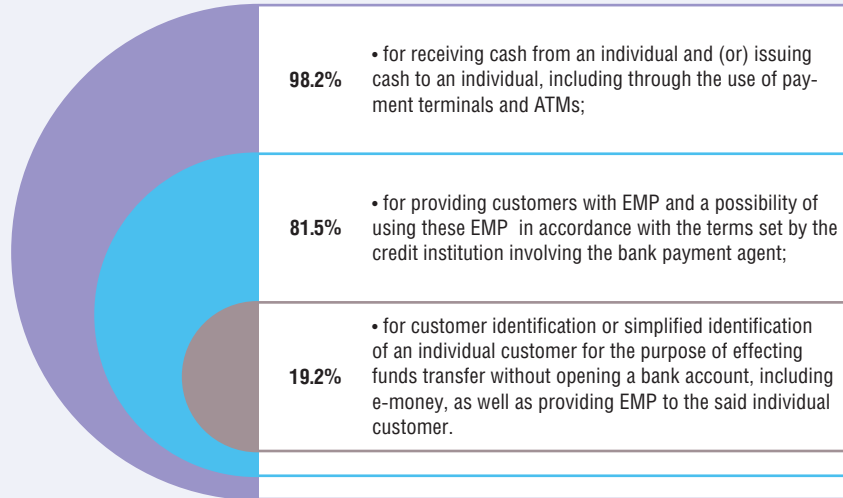
Among the federal districts of the Russian Federation, the Central Federal District was leading in terms of the value of individuals payments made through agents, which became possible mainly due to the high popularity of their services in the Moscow Region. The lowest level of using the services of such intermediaries was observed in the Far Eastern and North Caucasus Federal Districts.

### Box 11. Sample survey of agents' activities in the Moscow Region

Since the value of payments made through bank payment agents in the Central Federal District was significant, the Bank of Russia in 2013 conducted a sample survey of credit institutions of the Moscow Region to study the key aspects of activities of bank payment agents (sub-agents) involved by them, as well as of customers – payment agents. According to the survey results, in 2013, 14.7% of the participating credit institutions involved bank payment agents and 34.2% provided services to payment agents. It should be noted that bank payment agents were mainly involved for receiving cash from individuals and issuing cash to individuals.

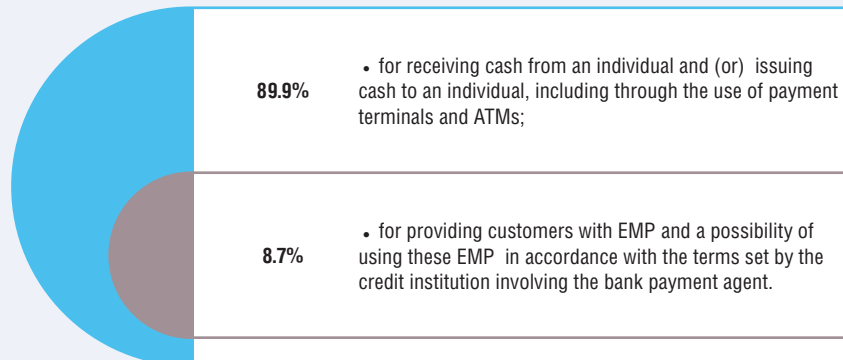


**Purposes of involving bank payment agents by credit institutions in the Moscow Region**

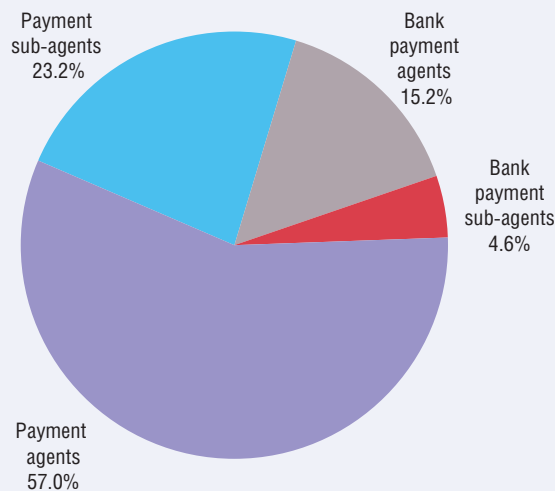


Bank payment agents, in their turn, involved bank payment sub-agents, and, on average, each bank payment agent involved at least one sub-agent.

**Goals of involving sub-agents by bank payment agents in the Moscow Region**



**Structure of special bank accounts opened with credit institutions in the Moscow Region**



According to the respondent credit institutions, over the first nine months of 2013, 25.2% of bank payment agents involved by credit institutions were audited, and it was revealed that each of them had on average at least one violation of the Federal Law No. 161-FZ and (or) the terms of the contract. In addition, it was established that virtually every payment agent (sub-agent) committed on average one violation of the Federal Law No. 103-FZ, dated June 3, 2009, 'On the Activities Relating to the Receipt of Individuals' Payments by Payment Agents'.

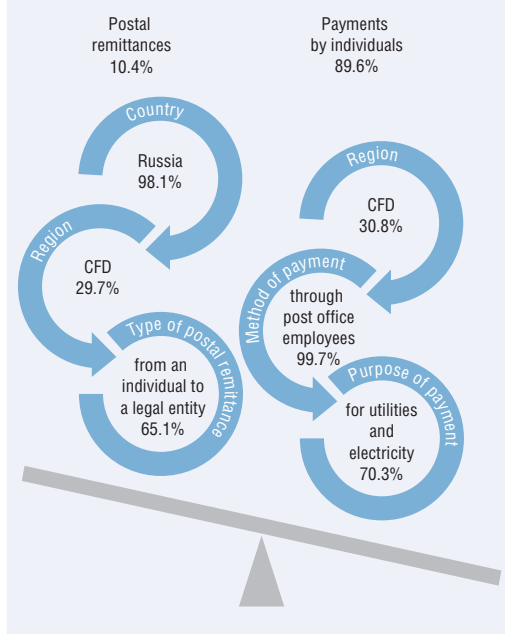
Thus, a conclusion about the need of strengthening the control over the agents' activities can be made.

Funds transfer and payment receipt services provided by agents are currently in demand with the population. Agents expanded their functionality significantly providing, in particular, a possibility of repaying loans, making budget payments, paying for communications services and thus making payment services more accessible to the public.

## III.2. The Russian Post: Current State and Trends in Payment Services Development

**The federal state unitary enterprise the Russian Post (hereinafter, the Russian Post) provides services of postal remittances of funds and the receipt of payments as a payment agent.**

**Chart III.2.** Most popular services of the Russian Post in 2013



In 2013, the Russian Post effected 651.0 million transactions amounting to 582.2 billion rubles (both within the Russian Federation and abroad). Of these, postal remittances made 10.4% in terms of volume and 35.8% in terms of value, payments accepted by the Russian Post as a payment agent made 89.6% in terms of volume and 64.2% in terms of value.

The Russian Post attaches great importance to the development of postal remittances of funds and is continuously improving this service. It accepts orders from the public for funds transfers to banks, insurance companies, educational establishments, remote trade companies and other organisations.

In 2013, the Russian Post effected 75.5 million postal remittances amounting to 332.6 billion rubles. The average amount of a postal remittance in 2013 decreased slightly (by 362 rubles) and amounted to 4.4 thousand rubles.

Traditionally, the extensive network of the Russian Post offices was most intensively used by individual customers. Postal remittances made by them in 2013 amounted to 89.3% in volume and 62.7% in value, while their structure was dominated

by postal remittances by individuals to legal entities (65.1% in volume and 37.4% in value).

As compared with 2012, the number of postal remittances between individuals made both within the Russian Federation and abroad increased by 6.7%, including due to a significant increase (more than 11-fold) in the volume and value of postal addressless remittances<sup>46</sup> Forsage between individuals. The average amount of such a remittance went up from 8.7 to 9.1 thousand rubles.

The overwhelming majority of postal remittances (98.1% in volume and 97.3% in value) were made within the Russian Federation. In the total volume of domestic postal remittances the largest share fell on the Central Federal District (29.7% in volume and 41.2% in value), and the smallest share – on the North Caucasus Federal District (3.6% in volume and 2.4% in value).

Despite the fact that the share of cross-border postal remittances remains low (1.9% of the total volume and 2.7% of the total value of postal remittances, with an average amount of one order being 6.2 thousand rubles), the Russian Post continues improving this business direction actively interacting primarily with the postal organisations of the former Soviet Union countries. Currently, you can exchange e-money orders between Russia and Armenia, Russia and Belarus, Russia and Moldova. It is also possible to send international express addressless transfers to these countries, as well as to Azerbaijan, Tajikistan, Kyrgyzstan and Georgia.

When providing individuals payment receipt services, the Russian Post acts as a payment agent.

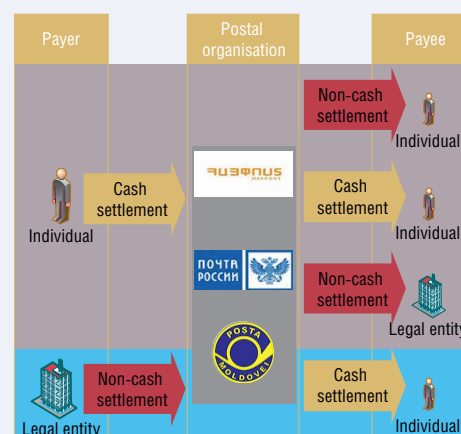
The Russian Post promotes the accessibility of payment services to the public and actively involves into cooperation different organisations performing remote settlements with their customers. Thus, customers are provided with a possibility to make all the required payments in a centralised manner, including payments for utilities, telecommunications and mobile communication, fines, fees, payments for kindergartens and schools, etc.

In 2013, the volume and value of payments received by the Russian Post, as a payment agent, from individuals amounted to 583.6 million payments totalling 373.8 billion rubles, demonstrating a decrease by 7.6 and 4.6% respectively as compared with 2012. The average payment increased slightly – from 620 rubles to 640 rubles.

Virtually all the payments were made through the post office employees (99.7% in volume and 99.9% in value), less than 0.3% in volume and less than 0.1% in value – through payment terminals and only to pay for the services of mobile operators.

The largest share of payments in terms of volume and value made the payments for utilities and electricity (70.3 and 84.5% respectively), the rest of the payments were made in order to pay for services of mobile operators and others.

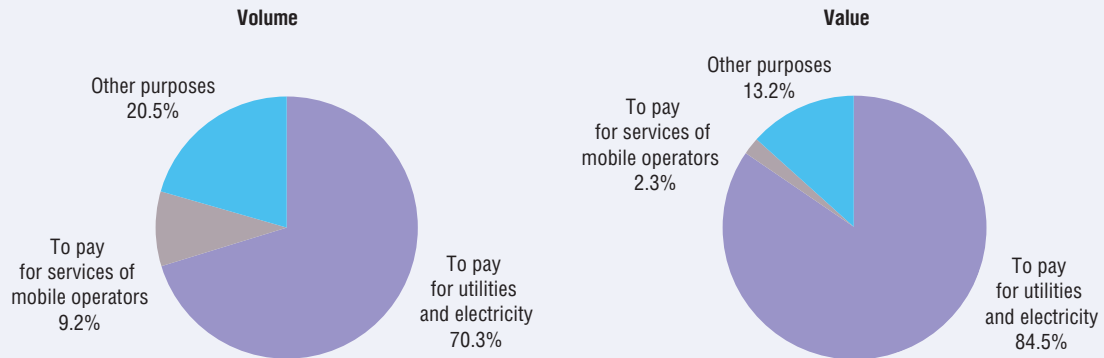
Chart III.3. International e-transfers<sup>1</sup>



<sup>1</sup> Between the Russian Post and HayPost (Armenia), the Russian Post and Belpochta (Republic of Belarus) and the Russian Post and Posta Moldovei (Moldova).

<sup>46</sup> The addressless transfer technology provides for a possibility of receiving a postal remittance in any post office connected to the service.

**Chart III.4.** Structure of individuals payments accepted by the Russian Post as a payment agent within the Russian Federation, by purpose of payment

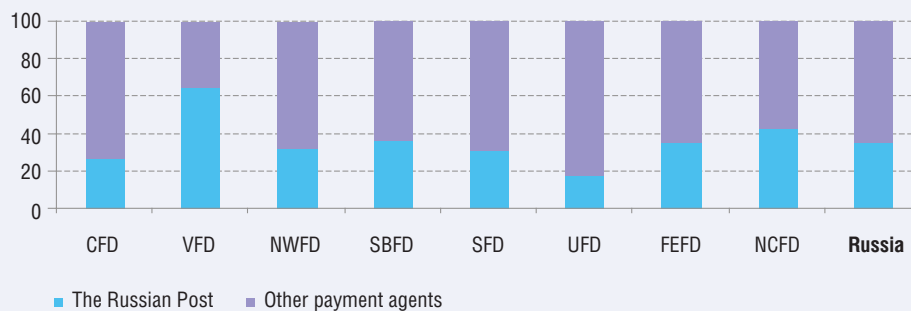


In the total volume of services provided by payment agents, the share of services provided by the Russian Post in 2013 varied by federal district from 17% (Urals Federal District) to 65% (Volga Federal District). In general, in the Russian Federation, consumers using the services of payment agents in 35 cases out of 100 preferred making payments through the Russian Post.

In the Volga Federal District, payments through post office employees were carried out more frequently than in other regions. The Northwestern Federal District was the leader in 2013 in terms of using ATMs and POS terminals by the population to carry out operations (57.1% in volume and 62.2% in value of payments). In the Central and Volga Federal Districts the number of post offices was the largest – 25.9 and 24.3% respectively of the total number of the Russian Post branches. The level of accessibility of the Russian Post infrastructure (ATMs, POS terminals and offices) was the highest in the Central Federal District and the lowest in the North Caucasus Federal District.

The Russian Post improves its activities of providing financial services, including through the development of technologies. Thus, in 2013, at all the post offices it became possible to transfer funds on the basis of the payment card number. In addition, the Russian Post joined the public information system of

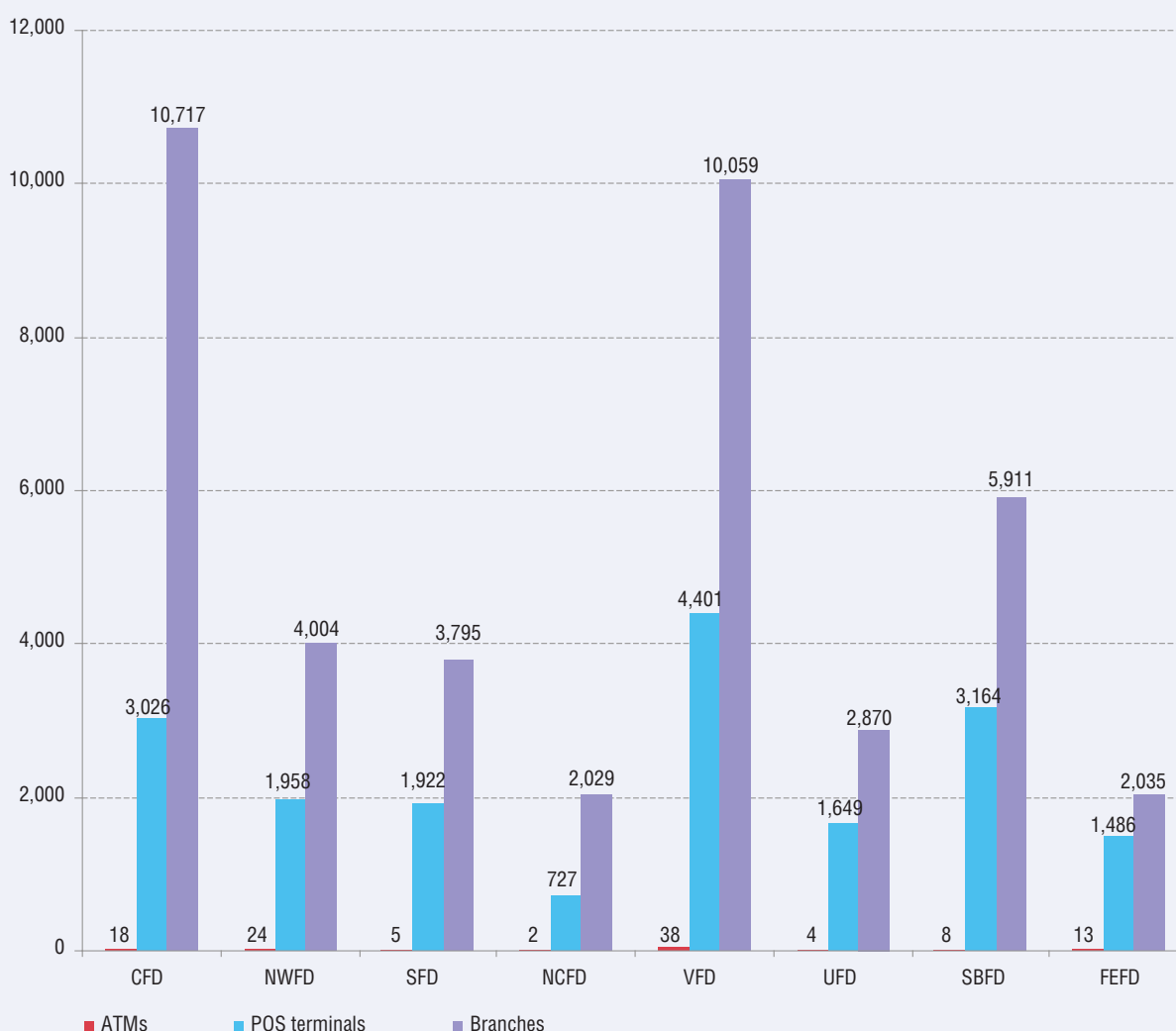
**Chart III.5.** Share of the Russian Post services in the total value of services by payment agents in 2013, %



government and municipal payments (GIS GMP). GIS GMP is a centralised system that provides for receiving, recording and transmitting information among its members that are administrators of budget revenues, organisations that receive payments, portals and multifunctional centers. GIS GMP allows individuals and legal entities to obtain information about their obligations to the budgets of the Russian Federation budget system based on the single window principle. Individuals and legal entities can receive government and municipal services without providing documents confirming their payment. Information on the payments accepted by the Russian Post is transferred to the GIS GMP system and can be provided electronically to relevant authorities upon request.

Thus, improving its activities, including through the use of advanced information technologies, and providing to the public a broad infrastructure for payments, the Russian Post has been and remains one of the most important entities of the national payment system.

**Chart III.6.** The Russian Post infrastructure, units



## Box 12. How the shift from analogue to digital money is transforming financial services<sup>1</sup>

Rapid progress in the digital world associated with the development of the technology of transmission, storage and processing of data and wider use by the public of electronic devices (tablets and smartphones) affect the development of financial products and services related to funds transfers.

While banks have been responsible historically for many of the innovations in payments such as the credit cards and online banking, their vertically integrated business models are ill-suited for today's multichannel world brought about by Internet, high-tech devices and big data that should be processed and analysed. The role played by banks in the payment services sphere is becoming less important. The demand is rising for modern technological and organisational solutions offered by alternative companies that are more innovative than the banks.

Currently, the money in its analogue form is becoming less important and, therefore, consumers and businesses need electronic financial services in order to increase the convenience, speed and quality of data processing in various types of transactions. Applications for mobile devices and the NFC-technology that allow you to make payments without using cash or payment cards become all the more common and a growing number of companies in the sphere of payment services get involved in data processing. This is due to the fact that the electronic processing is easier and more convenient for users, and also cheaper to organise and maintain.

Previously, because banks were given a monopoly on financial services, they built up their operational systems and processes around product sets that were delivered through a single channel, the branch. Over time, more service channels appeared, such as call-centers and Internet banking. Currently, however, there is the need for the customer to be able to use the full range of services without the involvement of a bank branch in the bank-customer interaction.

The level of using the Internet by the population today allows building a business model that is much more efficient in terms of customer loyalty and reduction of operating costs at all the stages of providing financial services. There are two main scenarios for banks to develop in the new and rapidly progressing technological environment of e-commerce. The first one is to create new units, whose task will be the re-engineering of business processes in the sphere of financial services in accordance with the modern demands of consumers. The second scenario is to partner with firms with innovative solutions (Google, PayPal, Amazon, Facebook, and others) specialising in work with big data and already possessing their own services that are in demand and that fully satisfy the requirements of the modern market of payment services, or work with innovative start-ups in this field.

Over the last few years an array of technological firms have emerged that are involved in the creation of financial services based on customer needs and excluding complicated and not always necessary steps in conducting transactions that are typical of traditional financial institutions. For example, in the sphere of cross-border payments due to the lower cost and greater convenience, the services provided by companies such as TransferWise (a peer-to-peer money transfer network) and Azimo (a service that allows money to be sent overseas via Facebook or mobile) are preferred by users to the services of traditional banks and transfer businesses (Western Union, Moneygram). Cross-border funds transfers made through banks are not optimal also because they have to go through the corresponding banking network, with each of them charging a fee for the involvement in the transfer.

The fact that today the market demands for technologies enabling mobile payments and transfers without opening a bank account, is clearly confirmed by the example of Kenya. In this country, due to the mobile payment system M-Pesa launched in 2007, it became possible to radically transform the financial services sphere. The M-Pesa system provides the population, to whom banking services are practically unavailable, with an access to financial services through mobile phones.

The next important aspect of the shift from analogue to digital money is the security of financial services related to the exchange and use of digital data. Customers will be most loyal to those companies that are

able to guarantee the security of their services. The volume of additional software you install on your smartphone or tablets and the need of entering additional passwords and keywords and user-friendliness of services through special applications are interdependent.

Currently, there is no clear understanding of whether banks, together with all their partners involved in the processing in the sphere of e-commerce, will be able to provide quality and, most importantly, secure financial services in this area or the future will belong to companies such as Google and PayPal, companies with great potential and experience of work with data that provide a high level of security in all the services they provide. Nevertheless, it is clear that the evolution of money from the analogue form to the digital form supported by the entire financial industry presumes a partnership of interested companies in the organisation of convenient and secure services and a complete rethinking of business processes in the traditional financial institutions.

<sup>1</sup> Source: 'Money Evolution: How the Shift from Analogue to Digital is Transforming Financial Services' (Journal of Payments Strategy & Systems. 2014. Vol. 7. No. 4).

## ANNEX

PAYMENT SERVICES PROVIDED BY CREDIT INSTITUTIONS,  
BY REGIONTable 1. The volume of credit transfers (in Russian rubles and foreign currency), thousands<sup>47</sup>

Russian federal district / territory	Credit transfers, total		Of which made using					
			payment orders		letters of credit		individuals' documents	
	2012	2013	2012	2013	2012	2013	2012	2013
Far Eastern Federal District	66,554	71,955	52,690	56,484	3	3	13,861	15,468
Amur Region	8,851	7,466	7,102	5,905	0	0	1,750	1,562
Jewish Autonomous Region	602	647	418	445	0	0	184	202
Kamchatka Territory	2,805	3,156	2,322	2,569	0	0	483	586
Magadan Region	1,627	1,487	1,089	1,031	0	0	539	457
Primorye Territory	22,696	23,042	16,369	17,031	2	1	6,326	6,009
Republic of Sakha (Yakutia)	5,635	6,270	3,873	3,730	0	0	1,763	2,540
Sakhalin Region	4,537	5,450	3,940	3,790	0	0	597	1,661
Khabarovsk Territory	19,453	24,308	17,342	21,893	1	1	2,110	2,414
Chukotka Autonomous Area	346	128	236	89	0	0	110	39
Volga Federal District	444,868	246,244	215,477	229,825	8	14	229,384	196,405
Kirov Region	17,244	17,914	8,685	8,587	1	0	8,559	9,327
Nizhny Novgorod Region	60,142	72,486	35,488	47,381	1	1	24,653	25,104
Orenburg Region	14,986	18,360	7,498	7,338	0	1	7,488	11,020
Penza Region	16,751	17,426	5,532	5,050	1	1	11,218	12,376
Perm Territory	36,707	38,777	24,029	24,972	0	0	12,678	13,805
Republic of Bashkortostan	60,449	58,998	32,929	39,142	1	1	27,519	19,854
Republic Mari El	7,996	6,924	2,992	2,567	0	0	5,004	4,356
Republic of Mordovia	11,891	12,790	3,253	3,089	0	0	8,639	9,701
Republic of Tatarstan (Tatarstan)	58,771	62,208	32,246	28,654	1	1	26,525	33,553
Samara Region	94,049	56,896	27,936	28,897	1	6	66,112	27,992
Saratov Region	23,788	27,039	12,629	12,138	0	0	11,159	14,902
Udmurt Republic	15,540	12,966	10,511	10,430	1	1	5,028	2,536
Ulyanovsk Region	12,057	11,915	5,432	5,573	0	0	6,625	6,343
Chuvash Republic – Chuvashia	14,495	11,544	6,318	6,007	0	1	8,177	5,536
Northwestern Federal District	265,395	285,576	153,405	158,271	16	31	111,974	127,275
Arkhangelsk Region	10,326	12,973	7,317	7,001	0	0	3,009	5,972
Vologda Region	16,391	16,447	10,346	8,330	0	1	6,044	8,116
Kaliningrad Region	18,755	16,402	7,592	6,906	0	0	11,163	9,496
Leningrad Region	6,095	5,976	3,642	3,354	0	0	2,453	2,622
Murmansk Region	16,598	15,604	4,642	4,541	0	0	11,955	11,063
Novgorod Region	9,705	9,812	3,861	3,645	0	0	5,845	6,167
Pskov Region	8,190	7,393	3,138	3,118	0	0	5,053	4,275
Republic of Karelia	10,457	9,203	3,944	3,669	0	0	6,513	5,533
Komi Republic	9,980	8,612	5,976	5,791	0	0	4,003	2,821
St Petersburg	158,897	183,154	102,947	111,914	15	29	55,935	71,210
North Caucasus Federal District	30,650	43,793	18,801	18,899	1	1	11,848	24,894
Kabardino-Balkar Republic	3,351	5,628	1,882	1,763	0	0	1,468	3,865
Karachayev-Circassian Republic	1,460	2,367	1,013	1,063	0	0	447	1,304

<sup>47</sup> Including payments by the customers of credit institutions (individuals and legal entities other than credit institutions) and credit institutions' own payments.



Russian federal district / territory	Credit transfers, total		Of which made using					
			payment orders		letters of credit		individuals' documents	
	2012	2013	2012	2013	2012	2013	2012	2013
Republic of Daghestan	3,610	3,036	2,225	1,419	0	0	1,385	1,617
Republic of Ingushetia	399	823	270	433	0	0	129	390
Republic of North Ossetia – Alania	2,163	2,362	1,659	1,250	0	0	503	1,112
Stavropol Territory	18,673	28,583	11,493	12,705	0	0	7,180	15,878
Chechen Republic	994	993	257	266	0	0	737	726
Siberian Federal District	247,321	260,620	161,041	155,520	11	13	86,269	105,088
Altai Territory	23,141	13,940	13,412	11,735	1	2	9,728	2,203
Trans-Baikal Territory	4,042	7,181	2,766	2,422	0	0	1,276	4,759
Irkutsk Region	14,880	24,011	11,356	10,665	1	1	3,522	13,345
Kemerovo Region	45,827	47,236	189,170	16,251	0	1	26,657	30,985
Krasnoyarsk Territory	25,314	36,467	17,903	19,718	1	1	7,410	16,747
Novosibirsk Region	74,141	74,142	55,768	57,359	7	7	18,366	16,747
Omsk Region	32,077	26,347	25,226	22,184	1	1	6,850	4,163
Republic of Altai	1,064	1,200	517	507	0	0	546	693
Republic of Buryatia	8,429	10,470	4,698	4,484	0	0	3,730	5,985
Republic of Tyva	969	805	348	318	0	0	622	488
Republic of Khakassia	3,743	4,500	2,105	2,428	0	0	1,637	2,072
Tomsk Region	13,695	14,321	7,771	7,450	0	0	5,923	6,871
Urals Federal District	225,066	245,326	117,761	129,017	10	9	107,295	116,301
Kurgan Region	6,148	5,520	3,372	3,146	0	0	2,776	2,375
Sverdlovsk Region	86,600	91,728	63,748	65,432	1	2	22,851	26,294
Tyumen Region	45,389	52,204	25,991	34,064	3	2	19,396	18,138
Chelyabinsk Region	86,929	95,874	24,651	26,374	6	5	62,272	69,495
Central Federal District	1,097,407	1,141,387	493,328	517,186	31	34	604,049	624,167
Belgorod Region	13,819	17,068	7,181	6,418	0	0	6,637	7,650
Bryansk Region	7,085	7,656	3,743	3,442	0	0	3,342	4,214
Vladimir Region	20,984	19,599	8,770	8,668	0	0	12,213	10,931
Voronezh Region	34,315	41,145	14,997	18,294	0	1	19,318	22,851
Ivanovo Region	8,939	10,270	4,874	4,671	0	0	4,065	5,599
Kaluga Region	17,907	19,841	5,428	5,533	0	0	12,479	14,308
Kostroma Region	8,603	9,417	4,242	3,919	0	0	4,388	5,498
Kursk Region	9,054	14,851	4,568	4,060	0	0	4,486	10,791
Lipetsk Region	13,333	14,691	4,914	5,197	0	0	8,419	9,494
Moscow and the Moscow Region	877,781	877,212	391,985	416,915	27	30	485,769	460,267
Orel Region	9,355	12,279	3,725	3,171	0	0	5,631	9,108
Ryazan Region	9,420	11,372	5,666	5,623	0	1	3,754	5,748
Smolensk Region	14,395	11,984	4,426	4,032	0	0	9,968	7,952
Tambov Region	6,246	7,878	3,026	2,678	0	0	3,222	5,200
Tver Region	12,930	12,812	6,061	5,839	0	0	6,869	6,973
Tula Region	11,673	29,643	6,124	5,670	0	0	5,549	23,972
Yaroslavl Region	21,537	26,668	13,597	13,056	1	0	7,939	13,611
Southern Federal District	164,983	186,976	80,835	83,620	2	5	84,146	103,351
Astrakhan Region	10,925	10,877	3,307	3,178	0	0	7,618	7,699
Volgograd Region	21,900	29,188	12,905	12,304	0	0	8,995	16,883
Krasnodar Territory	66,023	76,336	33,522	35,006	1	1	32,500	41,328
Republic of Adygeya (Adygeya)	3,321	3,657	1,183	1,223	0	0	2,138	2,424
Republic of Kalmykia	1,451	1,653	893	840	0	0	558	813
Rostov Region	61,363	65,267	29,025	31,060	1	3	32,338	34,204
Russia total	2,542,245	2,661,877	1,293,338	1,348,820	82	109	1,248,825	1,312,948

**Table 2. Value of credit transfers (in Russian rubles and foreign currency), billion rubles<sup>48</sup>**

Russian federal district / territory	Credit transfers, total		Of which using					
			payment orders		letters of credit		individuals' documents	
	2012	2013	2012	2013	2012	2013	2012	2013
Far Eastern Federal District	9,287	9,996	9,101	9,822	9	12	177	162
Amur Region	1,500	964	1,469	938	1	0	29	27
Jewish Autonomous Region	32	41	31	40	0	0	1	1
Kamchatka Territory	325	341	317	332	0	0	8	9
Magadan Region	236	186	228	176	0	0	7	11
Primorye Territory	3,035	3,155	2,978	3,115	3	2	53	38
Republic of Sakha (Yakutia)	789	866	767	842	0	0	22	24
Sakhalin Region	640	723	627	708	0	0	14	15
Khabarovsk Territory	2,681	3,697	2,637	3,651	4	9	40	38
Chukotka Autonomous Area	48	23	46	23	0	0	2	0
Volga Federal District	44,858	46,260	44,203	45,553	20	53	635	654
Kirov Region	920	967	903	948	1	0	17	18
Nizhny Novgorod Region	9,227	11,339	9,151	11,245	4	8	72	86
Orenburg Region	1,339	1,327	1,306	1,275	2	26	30	26
Penza Region	693	669	670	646	1	1	22	22
Perm Territory	5,546	5,492	5,473	5,413	1	0	72	78
Republic of Bashkortostan	5,195	5,349	5,075	5,207	3	2	117	139
Mari El Republic	336	353	328	346	1	0	7	7
Republic of Mordovia	469	442	458	431	0	0	11	10
Republic of Tatarstan (Tatarstan)	9,624	9,049	9,514	8,923	2	3	107	124
Samara Region	6,606	6,577	6,519	6,498	3	8	84	71
Saratov Region	1,897	1,906	1,857	1,868	0	1	40	37
Udmurt Republic	1,384	1,280	1,357	1,271	1	1	26	9
Ulyanovsk Region	995	920	978	905	0	0	17	15
Chuvash Republic – Chuvashia	627	589	614	576	0	1	12	12
Northwestern Federal District	37,212	40,252	36,725	39,707	57	95	430	450
Arkhangelsk Region	937	938	918	917	0	0	19	20
Vologda Region	1,500	1,379	1,482	1,357	1	1	18	21
Kaliningrad Region	1,471	1,344	1,454	1,328	1	1	16	15
Leningrad Region	565	520	537	484	0	0	28	36
Murmansk Region	601	602	581	582	0	2	20	19
Novgorod Region	388	351	379	341	0	1	9	9
Pskov Region	371	340	364	333	0	0	7	6
Republic of Karelia	363	315	351	304	0	0	12	11
Republic of Komi	815	839	790	818	0	0	25	20
Saint Petersburg	30,199	33,624	29,868	33,242	54	90	277	291
North Caucasus Federal District	2,856	2,967	2,779	2,883	2	2	75	82
Kabardino-Balkar Republic	258	263	250	254	1	0	7	9
Karachay-Cherkess Republic	159	161	156	158	0	0	3	3
Republic of Daghestan	405	397	384	377	0	0	21	20
Republic of Ingushetia	70	60	67	58	0	0	2	2
Republic of North Ossetia – Alania	176	155	171	147	0	0	5	7
Stavropol Territory	1,649	1,790	1,616	1,754	1	1	32	35
Chechen Republic	139	140	135	136	0	0	5	4
Siberian Federal District	23,857	24,678	23,461	24,206	19	25	377	447
Altai Territory	1,929	1,501	1,900	1,470	1	2	28	29
Trans-Baikal Territory	409	328	393	316	0	0	16	12
Irkutsk Region	2,371	2,336	2,322	2,281	2	2	47	54
Kemerovo Region	3,323	2,896	3,271	2,850	1	1	52	46
Krasnoyarsk Territory	3,193	4,031	3,129	3,936	3	5	61	90

<sup>48</sup> Including payments by customers of credit institutions (individuals and legal entities other than credit institutions) and credit institutions' own payments.

Russian federal district / territory	Credit transfers, total		Of which using					
			payment orders		letters of credit		individuals' documents	
	2012	2013	2012	2013	2012	2013	2012	2013
Novosibirsk Region	8,115	9,467	8,001	9,329	10	13	105	125
Omsk Region	2,709	2,293	2,685	2,273	1	1	23	19
Altai Republic	40	44	37	42	0	0	2	2
Republic of Buryatia	423	449	405	421	0	0	17	28
Republic of Tyva	43	43	41	40	0	0	2	2
Republic of Khakassia	237	252	228	225	0	0	9	27
Tomsk Region	1,063	1,037	1,049	1,024	1	0	14	13
Urals Federal District	28,673	29,991	28,223	29,487	31	36	418	468
Kurgan Region	382	430	372	420	0	0	10	10
Sverdlovsk Region	11,651	12,372	11,463	12,139	4	13	183	220
Tyumen Region	11,165	12,228	11,016	12,077	22	17	127	133
Chelyabinsk Region	5,475	4,961	5,372	4,851	5	6	97	105
Central Federal District	279,556	330,691	277,237	328,274	322	436	1,997	1,981
Belgorod Region	1,801	1,610	1,783	1,591	1	0	17	19
Bryansk Region	562	496	550	485	0	0	12	11
Vladimir Region	951	807	931	789	0	0	20	18
Voronezh Region	2,624	3,577	2,587	3,528	2	8	36	41
Ivanovo Region	526	541	516	528	0	0	10	12
Kaluga Region	805	848	779	820	1	1	26	27
Kostroma Region	563	521	553	511	0	0	10	10
Kursk Region	892	706	878	690	2	2	12	15
Lipetsk Region	944	897	930	882	1	1	13	15
Moscow and the Moscow Region	263,951	314,984	261,902	312,871	313	419	1,736	1,695
Orel Region	441	453	432	441	0	0	9	12
Ryazan Region	702	711	690	698	1	1	12	12
Smolensk Region	633	531	616	515	0	0	17	15
Tambov Region	422	421	414	412	0	0	8	9
Tver Region	762	696	746	678	0	1	16	16
Tula Region	1,168	1,173	1,150	1,152	1	0	18	20
Yaroslavl Region	1,809	1,718	1,782	1,683	1	1	26	34
Southern Federal District	14,083	15,452	13,753	15,077	7	9	323	366
Astrakhan Region	497	526	482	509	0	2	15	15
Volgograd Region	2,342	2,404	2,299	2,367	2	1	41	37
Krasnodar Territory	6,195	6,583	6,041	6,410	3	3	151	170
Republic of Adygeya (Adygeya)	116	115	112	110	0	0	4	5
Republic of Kalmykia	49	52	47	49	0	0	2	3
Rostov Region	4,884	5,773	4,772	5,633	2	3	110	137
Russia total	440,381	500,287	435,482	495,009	467	668	4,432	4,611

**Table 3. Volume of direct debits (in Russian rubles and foreign currency), thousands<sup>49</sup>**

Russian federal district / territory	Direct debits, total		Of which using			
			payment claims		collection orders	
	2012	2013	2012	2013	2012	2013
Far Eastern Federal District	2,053	2,761	782	793	1,270	1,969
Amur Region	350	327	260	234	89	93
Jewish Autonomous Region	15	17	6	8	9	9
Kamchatka Territory	68	65	23	22	45	43
Magadan Region	67	39	37	15	30	23
Primorye Territory	387	324	152	77	235	247
Republic of Sakha (Yakutia)	197	192	44	33	153	160
Sakhalin Region	110	98	29	30	81	68
Khabarovsk Territory	858	1,698	230	373	628	1,326
Chukotka Autonomous Area	1	1	0	0	0	0
Volga Federal District	16,893	14,428	10,812	7,469	6,080	6,959
Kirov Region	446	375	159	97	287	278
Nizhny Novgorod Region	1,086	1,409	543	724	543	685
Orenburg Region	284	254	71	65	213	189
Penza Region	210	194	88	60	122	133
Perm Territory	5,510	2,676	5,021	2,198	489	478
Republic of Bashkortostan	1,481	1,985	1,000	1,463	481	521
Mari El Republic	225	91	161	35	64	56
Republic of Mordovia	103	109	39	29	65	80
Republic of Tatarstan (Tatarstan)	812	782	296	211	517	571
Samara Region	3,135	3,718	734	658	2,401	3,059
Saratov Region	593	592	235	188	358	404
Udmurt Republic	2,548	1,835	2,272	1,621	276	215
Ulyanovsk Region	263	275	107	90	156	185
Chuvash Republic – Chuvashia	196	134	86	29	110	106
Northwestern Federal District	8,210	8,563	4,552	3,761	3,659	4,802
Arkhangelsk Region	561	432	384	271	177	161
Vologda Region	585	516	262	217	323	299
Kaliningrad Region	787	732	398	363	389	368
Leningrad Region	157	83	111	40	46	43
Murmansk Region	171	152	86	71	86	81
Novgorod Region	123	114	63	60	60	54
Pskov Region	134	118	72	55	63	63
Republic of Karelia	214	174	109	93	105	81
Republic of Komi	1,356	1,445	1,224	1,329	132	115
Saint Petersburg	4,122	4,799	1,843	1,262	2,278	3,537
North Caucasus Federal District	1,304	1,117	679	285	625	831
Kabardino-Balkar Republic	99	140	39	55	61	85
Karachay-Cherkess Republic	65	63	9	5	56	58
Republic of Daghestan	436	113	387	39	48	75
Republic of Ingushetia	4	9	1	1	3	7
Republic of North Ossetia – Alania	74	77	22	27	52	50
Stavropol Territory	614	703	221	159	393	544
Chechen Republic	12	12	0	0	12	12
Siberian Federal District	15,552	18,194	10,813	12,586	4,740	5,608
Altai Territory	577	1,739	368	1,534	209	204
Trans-Baikal Territory	224	173	100	37	124	137
Irkutsk Region	627	549	162	99	465	450
Kemerovo Region	3,078	2,286	2,550	1,910	528	377
Krasnoyarsk Territory	1,859	2,806	1,481	2,402	378	405

<sup>49</sup> Including payments by customers of credit institutions (individuals and legal entities other than credit institutions) and credit institutions' own payments.

Russian federal district / territory	Direct debits, total		Of which using			
			payment claims		collection orders	
	2012	2013	2012	2013	2012	2013
Novosibirsk Region	4,364	6,749	2,102	3,335	2,263	3,413
Omsk Region	2,791	1,826	2,578	1,639	213	187
Altai Republic	22	35	1	9	21	26
Republic of Buryatia	330	329	157	141	173	188
Republic of Tyva	146	94	15	75	131	19
Republic of Khakassia	267	355	197	289	70	66
Tomsk Region	1,268	1,252	1,102	1,116	166	136
Urals Federal District	11,084	11,479	7,182	6,948	3,903	4,531
Kurgan Region	141	186	84	130	57	56
Sverdlovsk Region	7,079	6,967	4,477	3,761	2,602	3,205
Tyumen Region	1,634	2,045	890	1,337	744	708
Chelyabinsk Region	2,230	2,282	1,731	1,720	499	562
Central Federal District	15,789	16,153	8,807	6,116	6,981	10,037
Belgorod Region	254	263	102	60	151	203
Bryansk Region	178	172	80	66	98	107
Vladimir Region	305	208	147	88	157	120
Voronezh Region	1,392	2,231	267	301	1,124	1,931
Ivanovo Region	123	124	25	18	99	106
Kaluga Region	254	242	94	60	161	181
Kostroma Region	158	111	46	8	112	103
Kursk Region	301	203	185	28	116	175
Lipetsk Region	305	264	176	51	130	213
Moscow	10,705	10,529	7,054	4,950	3,651	5,579
Orel Region	480	432	50	30	430	402
Ryazan Region	250	297	126	153	125	144
Smolensk Region	217	187	94	62	123	125
Tambov Region	88	89	26	12	62	78
Tver Region	188	167	87	65	100	102
Tula Region	277	256	129	74	149	181
Yaroslavl Region	313	378	118	90	195	288
Southern Federal District	11,441	12,328	8,445	8,535	2,996	3,793
Astrakhan Region	388	354	78	57	309	297
Volgograd Region	668	751	261	313	408	438
Krasnodar Territory	6,990	7,168	5,305	4,741	1,685	2,427
Republic of Adygeya (Adygeya)	213	215	173	171	40	44
Republic of Kalmykia	34	43	19	17	15	26
Rostov Region	3,148	3,799	2,609	3,237	539	562
Russia total	82,326	85,023	52,071	46,492	30,254	38,530

**Table 4. Value of direct debits (in Russian rubles and foreign currency), billion rubles<sup>50</sup>**

Russian federal district / territory	Direct debits, total		Of which using			
			payment claims		collection orders	
	2012	2013	2012	2013	2012	2013
Far Eastern Federal District	54	244	41	51	13	194
Amur Region	8	10	7	9	1	1
Jewish Autonomous Region	1	1	1	1	0	0
Kamchatka Territory	1	2	0	0	1	1
Magadan Region	1	1	0	0	0	1
Primorye Territory	19	187	16	14	2	173
Republic of Sakha (Yakutia)	3	6	1	1	2	5
Sakhalin Region	7	6	5	5	1	2
Khabarovsk Territory	14	31	9	20	5	10
Chukotka Autonomous Area	1	0	1	0	0	0
Volga Federal District	228	206	181	145	46	61
Kirov Region	9	6	7	5	1	2
Nizhny Novgorod Region	38	33	34	25	4	8
Orenburg Region	10	4	8	2	2	2
Penza Region	5	4	5	3	1	1
Perm Territory	38	52	35	47	3	5
Republic of Bashkortostan	23	16	18	10	6	7
Mari El Republic	3	3	2	2	1	1
Republic of Mordovia	3	2	2	1	1	1
Republic of Tatarstan (Tatarstan)	21	19	14	8	7	11
Samara Region	36	31	22	15	14	16
Saratov Region	9	7	7	4	2	3
Udmurt Republic	18	21	15	20	2	2
Ulyanovsk Region	5	3	4	2	1	2
Chuvash Republic – Chuvashia	9	4	8	3	1	1
Northwestern Federal District	103	110	73	60	30	50
Arkhangelsk Region	15	8	11	3	3	5
Vologda Region	11	4	9	2	2	2
Kaliningrad Region	5	6	4	4	1	2
Leningrad Region	1	1	0	0	0	1
Murmansk Region	2	3	1	1	2	2
Novgorod Region	2	6	2	4	1	3
Pskov Region	2	2	1	1	1	1
Republic of Karelia	3	2	2	1	1	1
Republic of Komi	11	14	9	11	2	3
Saint Petersburg	51	66	34	34	17	32
North Caucasus Federal District	33	30	28	22	5	8
Kabardino-Balkar Republic	6	6	5	5	1	1
Karachay-Cherkess Republic	1	1	1	1	0	0
Republic of Daghestan	5	4	4	2	1	1
Republic of Ingushetia	0	1	0	0	0	1
Republic of North Ossetia – Alania	2	2	1	1	0	1
Stavropol Territory	19	16	17	13	2	3
Chechen Republic	0	0	0	0	0	0
Siberian Federal District	291	297	255	243	36	54
Altai Territory	38	37	36	34	2	3
Trans-Baikal Territory	2	1	1	1	1	1
Irkutsk Region	5	5	2	2	3	3
Kemerovo Region	45	55	41	49	4	6
Krasnoyarsk Territory	18	23	13	11	5	12

<sup>50</sup> Including payments by customers of credit institutions (individuals and legal entities other than credit institutions) and credit institutions' own payments.

Russian federal district / territory	Direct debits, total		Of which using			
			payment claims		collection orders	
	2012	2013	2012	2013	2012	2013
Novosibirsk Region	53	71	43	54	10	17
Omsk Region	98	65	90	60	8	5
Altai Republic	0	1	0	0	0	0
Republic of Buryatia	4	3	3	2	1	1
Republic of Tyva	1	3	0	0	0	3
Republic of Khakassia	2	2	1	1	1	1
Tomsk Region	26	31	24	29	1	2
Urals Federal District	266	324	220	257	47	67
Kurgan Region	10	33	9	32	0	0
Sverdlovsk Region	171	179	144	141	26	38
Tyumen Region	71	81	58	68	13	13
Chelyabinsk Region	15	31	8	15	7	16
Central Federal District	495	507	390	344	105	163
Belgorod Region	3	3	1	1	1	2
Bryansk Region	2	4	1	2	1	2
Vladimir Region	10	5	8	4	1	1
Voronezh Region	8	16	3	5	5	11
Ivanovo Region	4	3	3	2	1	1
Kaluga Region	4	5	1	2	3	3
Kostroma Region	1	2	0	1	1	1
Kursk Region	2	3	1	1	1	2
Lipetsk Region	2	5	1	2	1	4
Moscow	442	437	360	313	81	124
Orel Region	1	2	0	1	1	1
Ryazan Region	2	2	1	1	1	1
Smolensk Region	3	5	2	3	1	2
Tambov Region	1	1	1	1	1	1
Tver Region	3	5	1	2	2	3
Tula Region	3	4	2	3	1	1
Yaroslavl Region	3	3	1	1	2	3
Southern Federal District	70	78	42	46	28	32
Astrakhan Region	3	2	2	1	1	1
Volgograd Region	7	11	4	6	4	5
Krasnodar Territory	38	40	22	24	16	16
Republic of Adygeya (Adygeya)	1	2	1	1	0	0
Republic of Kalmykia	1	1	1	1	0	0
Rostov Region	20	23	13	13	8	10
Russia total	1,540	1,795	1,230	1,167	311	628

Table 5. Number of payment cards issued in the region, thousands

Russian federal district / territory	Payment cards					
	total		of which			
			debit		credit	
	01.01.2013	01.01.2014	01.01.2013	01.01.2014	01.01.2013	01.01.2014
Far Eastern Federal District	8,328	9,361	7,201	8,025	1,126	1,336
Amur Region	1,220	1,538	987	1,228	233	310
Jewish Autonomous Region	153	160	134	132	19	28
Kamchatka Territory	410	476	374	418	36	58
Magadan Region	186	212	167	185	19	27
Primorye Territory	2,355	2,767	2,119	2,396	236	371
Republic of Sakha (Yakutia)	998	1,256	922	1,109	76	147
Sakhalin Region	615	666	549	557	66	109
Khabarovsk Territory	2,352	2,241	1,914	1,958	438	283
Chukotka Autonomous Area	38	44	36	41	3	3
Volga Federal District	35,417	39,202	32,204	34,852	3,213	4,351
Kirov Region	1,360	1,561	1,241	1,383	119	178
Nizhny Novgorod Region	3,695	3,940	3,279	3,456	417	484
Orenburg Region	2,419	2,787	2,241	2,532	178	255
Penza Region	1,297	1,353	1,206	1,238	90	115
Perm Territory	3,068	3,500	2,683	2,948	385	552
Republic of Bashkortostan	5,410	6,035	4,840	5,332	570	703
Mari El Republic	549	632	506	565	42	67
Republic of Mordovia	687	766	635	683	52	83
Republic of Tatarstan (Tatarstan)	5,014	5,748	4,574	5,130	440	618
Samara Region	4,168	4,516	3,868	4,122	300	395
Saratov Region	2,800	3,124	2,585	2,787	215	336
Udmurt Republic	2,002	2,074	1,807	1,802	195	272
Ulyanovsk Region	1,545	1,663	1,424	1,503	121	160
Chuvash Republic – Chuvashia	1,402	1,503	1,313	1,371	89	133
Northwestern Federal District	18,332	19,765	16,421	17,271	1,911	2,494
Arkhangelsk Region	1,392	1,536	1,233	1,309	159	226
Vologda Region	1,406	1,566	1,267	1,354	139	212
Kaliningrad Region	1,192	1,280	1,081	1,113	110	166
Leningrad Region	1,146	1,263	1,029	1,066	117	197
Murmansk Region	1,202	1,262	1,058	1,056	144	206
Novgorod Region	710	791	626	661	84	130
Pskov Region	630	685	563	573	67	113
Republic of Karelia	840	909	742	758	97	151
Republic of Komi	1,181	1,298	1,052	1,110	130	188
Saint Petersburg	8,633	9,174	7,769	8,270	864	904
North Caucasus Federal District	4,333	5,221	3,939	4,645	394	576
Kabardino-Balkar Republic	478	516	440	453	38	64
Karachay-Cherkess Republic	254	269	231	228	24	40
Republic of Daghestan	509	789	497	734	12	56
Republic of Ingushetia	118	151	115	144	3	7
Republic of North Ossetia – Alania	420	441	390	391	30	50
Stavropol Territory	2,303	2,685	2,019	2,329	285	356
Chechen Republic	249	371	247	367	2	3
Siberian Federal District	25,326	27,842	22,586	24,021	2,740	3,821
Altai Territory	2,786	2,889	2,526	2,481	260	408
Trans-Baikal Territory	1,014	1,139	882	892	132	247
Irkutsk Region	3,051	3,406	2,691	2,853	360	553
Kemerovo Region	3,832	4,062	3,484	3,530	349	532
Krasnoyarsk Territory	4,353	4,399	3,685	3,833	668	566
Novosibirsk Region	3,967	4,647	3,544	4,055	423	592
Omsk Region	2,659	3,084	2,465	2,737	194	347



Russian federal district / territory	Payment cards					
	total		of which			
			debit		credit	
	01.01.2013	01.01.2014	01.01.2013	01.01.2014	01.01.2013	01.01.2014
Altai Republic	173	200	154	166	18	34
Republic of Buryatia	1,260	1,469	1,131	1,247	129	221
Republic of Tyva	288	343	258	295	31	48
Republic of Khakassia	585	656	531	569	54	87
Tomsk Region	1,358	1,548	1,237	1,363	121	184
Urals Federal District	18,259	20,688	16,811	18,557	1,448	2,130
Kurgan Region	763	922	675	771	89	152
Sverdlovsk Region	6,397	7,384	5,862	6,660	535	724
Tyumen Region	5,952	6,652	5,524	5,971	427	681
Chelyabinsk Region	5,148	5,730	4,750	5,156	397	574
Central Federal District	67,665	79,490	57,356	66,932	10,309	12,558
Belgorod Region	1,671	1,902	1,501	1,646	170	256
Bryansk Region	1,198	1,324	1,091	1,150	107	174
Vladimir Region	1,370	1,540	1,245	1,360	124	179
Voronezh Region	2,185	2,497	1,996	2,213	188	284
Ivanovo Region	913	1,018	831	915	81	102
Kaluga Region	1,014	1,192	921	1,024	92	168
Kostroma Region	619	648	557	565	62	83
Kursk Region	1,220	1,372	1,111	1,216	109	156
Lipetsk Region	1,090	1,220	980	1,067	110	153
Moscow and the Moscow Region	48,061	57,500	39,576	47,561	8,485	9,939
Orel Region	805	910	732	812	73	97
Ryazan Region	1,082	1,227	972	1,078	110	149
Smolensk Region	926	1,015	814	885	113	130
Tambov Region	851	886	769	765	83	121
Tver Region	1,246	1,381	1,129	1,194	117	187
Tula Region	1,796	2,064	1,663	1,864	133	200
Yaroslavl Region	1,619	1,795	1,468	1,616	151	179
Southern Federal District	13,836	15,902	12,495	13,979	1,341	1,923
Astrakhan Region	1,313	1,403	1,212	1,265	101	138
Volgograd Region	2,754	3,030	2,547	2,699	207	331
Krasnodar Territory	5,302	6,178	4,794	5,433	508	745
Republic of Adygeya (Adygeya)	263	308	235	256	28	52
Republic of Kalmykia	235	266	201	221	34	45
Rostov Region	3,968	4,717	3,505	4,105	463	612
Russia total	191,495	217,472	169,013	188,282	22,483	29,190

**Table 6. Volume of payments using payment cards issued in the region, thousands**

Russian federal district / territory	Payments for goods (work, services)				Customs payments and other transactions	
	Russia		abroad		2012	2013
	2012	2013	2012	2013		
Far Eastern Federal District	108,855	180,575	4,694	7,960	9,162	16,908
Amur Region	16,013	28,881	218	456	994	1,817
Jewish Autonomous Region	1,715	2,907	31	59	130	223
Kamchatka Territory	5,241	7,555	257	452	346	605
Magadan Region	3,826	7,809	151	291	247	565
Primorye Territory	22,413	39,962	1,793	2,925	3,633	6,689
Republic of Sakha (Yakutia)	16,258	24,620	341	667	914	1,776
Sakhalin Region	10,690	18,957	587	947	846	1,498
Khabarovsk Territory	31,868	48,779	1,270	2,116	1,945	3,597
Chukotka Autonomous Area	831	1,105	45	47	107	138
Volga Federal District	461,990	713,951	11,852	20,691	23,116	42,014
Kirov Region	21,209	34,427	317	577	1,216	2,073
Nizhny Novgorod Region	50,968	81,170	1,741	2,992	2,843	5,402
Orenburg Region	18,801	30,933	505	1,020	970	2,032
Penza Region	10,148	18,058	259	509	759	1,375
Perm Territory	90,259	122,245	1,762	2,743	3,287	5,397
Republic of Bashkortostan	63,082	100,620	1,405	2,503	3,183	6,772
Mari El Republic	6,664	11,091	129	249	556	691
Republic of Mordovia	4,981	7,563	102	199	258	478
Republic of Tatarstan (Tatarstan)	56,302	84,450	1,660	2,882	2,103	3,330
Samara Region	40,041	63,913	1,752	2,981	2,979	5,715
Saratov Region	23,187	38,265	748	1,373	1,387	2,740
Udmurt Republic	46,391	73,042	817	1,377	1,546	2,558
Ulyanovsk Region	13,924	22,443	342	656	851	1,539
Chuvash Republic – Chuvashia	16,034	25,731	313	630	1,179	1,912
Northwestern Federal District	353,105	572,978	25,605	39,194	14,237	27,193
Arkhangelsk Region	31,248	52,597	754	1,233	1,832	3,106
Vologda Region	22,662	35,108	450	732	1,046	1,837
Kaliningrad Region	18,609	32,373	2,128	3,457	924	2,064
Leningrad Region	13,121	28,355	706	1,276	720	1,604
Murmansk Region	43,777	67,466	1,880	2,977	2,340	3,993
Novgorod Region	8,466	17,020	241	423	553	1,214
Pskov Region	8,381	15,425	498	847	311	771
Republic of Karelia	16,640	31,339	834	1,197	587	1,338
Republic of Komi	26,759	49,091	492	908	1,691	3,050
Saint Petersburg	163,442	244,204	17,630	26,144	4,234	8,216
North Caucasus Federal District	41,671	68,076	1,157	2,358	4,656	8,395
Kabardino-Balkar Republic	2,974	5,178	86	179	312	597
Karachay-Cherkess Republic	2,159	3,603	40	93	262	511
Republic of Daghestan	3,116	6,615	156	304	340	808
Republic of Ingushetia	897	1,841	16	39	122	241
Republic of North Ossetia – Alania	2,751	4,744	115	227	292	538
Stavropol Territory	27,986	43,529	692	1,397	3,070	5,327
Chechen Republic	1,788	2,566	52	119	258	373
Siberian Federal District	348,962	578,412	9,476	16,079	25,159	44,955
Altai Territory	47,193	72,958	729	1,383	2,945	5,310
Trans-Baikal Territory	17,610	31,076	148	280	1,051	2,024
Irkutsk Region	55,492	93,535	1,246	2,148	5,054	8,874
Kemerovo Region	48,518	78,666	1,277	1,927	2,610	5,096
Krasnoyarsk Territory	49,272	81,918	1,765	2,886	3,433	6,069
Novosibirsk Region	39,674	67,595	2,290	3,870	2,348	4,621
Omsk Region	29,127	50,593	1,023	1,824	1,274	2,915

Russian federal district / territory	Payments for goods (work, services)				Customs payments and other transactions	
	Russia		abroad			
	2012	2013	2012	2013	2012	2013
Altai Republic	2,909	5,856	20	43	407	735
Republic of Buryatia	25,264	38,577	151	257	884	1,549
Republic of Tyva	2,283	4,575	18	37	483	842
Republic of Khakassia	4,285	6,884	75	153	538	920
Tomsk Region	27,335	46,179	733	1,271	4,132	6,000
Urals Federal District	302,921	479,910	9,604	16,120	15,881	29,296
Kurgan Region	10,304	17,231	185	340	642	1,317
Sverdlovsk Region	106,989	164,646	3,581	5,776	5,129	9,498
Tyumen Region	133,526	214,435	4,007	6,861	6,724	12,029
Chelyabinsk Region	52,102	83,598	1,831	3,143	3,386	6,452
Central Federal District	811,152	1,262,629	73,531	115,752	41,050	73,298
Belgorod Region	21,916	35,531	524	1,002	1,038	1,893
Bryansk Region	14,197	22,386	307	611	1,055	1,834
Vladimir Region	14,923	22,773	376	719	751	1,163
Voronezh Region	30,007	48,628	1,046	1,863	1,676	3,048
Ivanovo Region	6,819	11,629	252	472	339	657
Kaluga Region	10,250	18,019	435	743	817	1,505
Kostroma Region	6,343	10,154	132	237	558	1,068
Kursk Region	18,140	27,752	224	466	768	1,274
Lipetsk Region	15,731	23,644	396	730	667	1,199
Moscow and the Moscow Region	578,708	889,032	66,978	103,714	27,984	49,958
Orel Region	10,003	17,101	202	374	490	875
Ryazan Region	10,146	18,165	283	551	828	1,553
Smolensk Region	10,202	17,400	549	951	818	1,372
Tambov Region	8,474	13,315	200	340	561	948
Tver Region	15,137	25,366	431	799	1,018	1,805
Tula Region	19,370	30,580	501	966	811	1,630
Yaroslavl Region	20,784	31,154	695	1,214	870	1,516
Southern Federal District	139,411	236,196	6,170	11,227	10,490	20,312
Astrakhan Region	13,234	21,872	225	477	739	1,364
Volgograd Region	29,395	45,377	1,030	1,769	1,735	3,255
Krasnodar Territory	49,125	86,117	2,769	5,119	4,023	8,052
Republic of Adygeya (Adygeya)	1,901	3,705	50	110	210	380
Republic of Kalmykia	2,237	3,474	41	83	526	744
Rostov Region	43,519	75,651	2,055	3,669	3,256	6,517
Russia total	2,568,068	4,092,727	142,088	229,381	143,751	262,371

