



Bank of Russia



NATIONAL PAYMENT SYSTEM OVERSIGHT RESULTS 2016-2018

Moscow
2019

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Payment services today are developing rapidly. New financial technologies and innovative solutions penetrate all payment services-related processes and influence the emergence of new market players and payment instruments. These changes in the payment market are driven first of all by customers who seek simple, fast and cheap payment services.

Current developments are obviously set to have a positive effect on competition, expansion of payment service channels and their rising accessibility, which is critically important for Russia given its geography. Consequentially, we have seen dramatic growth in the share of cashless payments in recent years.

The Bank of Russia's key payment services-related objectives at the current stage are to build a convenient, technology intensive and reliable cutting-edge infrastructure of the payment services market, and to promptly respond to current developments. Oversight in the national payment system (NPS) allows timely and efficient delivery on these objectives.

To secure reliability of the NPS and high public confidence in payment services, the Bank of Russia analyses activities of NPS entities and NPS trends overall, identifies new participants and estimates the related risks, implements international standards in the Russian jurisdiction, promotes best Russian and global practices, and develops international cooperation.

This publication overviews the results of the overall NPS oversight and oversight of important payment systems in 2016-2018.

The first part of the publication covers main trends and issues of NPS development. The second part is dedicated to the assessment of important payment systems for compliance with international standards, which confirmed high compliance.

The publication is aimed at ensuring transparency of the Bank of Russia's oversight in the NPS, raising stakeholders' awareness of its results, and building effective communication between the Bank of Russia and payment market participants.

Olga Skorobogatova
First Deputy Governor of the Bank of Russia

Abbreviations

BPA	– bank payment agent
SFPS	– smooth functioning of a payment system
NPS Law	– Federal Law No. 161-FZ, dated 27 June 2011, ‘On the National Payment System’
Federal Law No. 103-FZ	– Federal Law No. 103-FZ, dated 3 June 2009, ‘On Accepting Payments of Individuals by Payment Agents’
IPS	– important payment system
FMI	– financial market infrastructure
CPMI	– Committee on Payments and Market Infrastructures
IOSCO	– International Organisation of Securities Commissions
NPS	– national payment system
NSPK	– National Payment Card System
MTO	– money transfer operator
PSO / PS operator	– payment system operator
PISP	– payment infrastructure service provider
EMO	– electronic money operator
PA	– payment agent
Bank of Russia Regulation No. 380-P	– Bank of Russia Regulation No. 380-P, dated 31 May 2012, ‘On the Procedure for Oversight in the National Payment System’
Bank of Russia Regulation No. 607-P	– Bank of Russia Regulation No. 607-P, dated 3 October 2017, ‘On the Requirements for the Procedure Ensuring Smooth Functioning of a Payment System, Indicators of Payment System Smooth Operation and Methodologies Used to Analyse Payment System Risks, Including Risk Profiles’
Bank of Russia Order No. OD-607	– Bank of Russia Order No. OD-607, dated 9 April 2014, ‘On the Methodology for Assessing Compliance of Systemically Important Payment System Operators, Payment Infrastructure Service Providers and Related Systemically Important Payment Systems with Bank of Russia Recommendations’
Bank of Russia Order No. OD-3118	– Bank of Russia Order No. OD-3118, dated 6 November 2014, ‘On the Methodology for Assessing Compliance of Social Important Payment System Operators, Payment Infrastructure Service Providers and Related Social Important Payment Systems with Bank of Russia Recommendations’
PFMI	– CPMI-IOSCO Principles for Financial Market Infrastructures, April 2012
PS	– payment system
BRPS	– Bank of Russia payment system
Visa PS	– Visa Payment System
KoronaPay PS	– KoronaPay Payment System
MasterCard PS	– MasterCard Payment System
Mir PS	– Mir Payment System
NSD PS	– NSD Payment System
Sberbank PS	– Sberbank Payment System
PSO Register	– register of payment system operators
NPS entities	– entities of the national payment system (PSOs, PISPs, MTOs (including EMOs), BPAs, PAs, and the federal post service)
Bank of Russia Ordinance No. 4443-U	– Bank of Russia Ordinance No. 4443-U, dated 3 July 2017, ‘On Setting Criteria for Qualifying Payment Systems as Important’
E-money	– electronic money
EMP	– electronic means of payment

Introduction

The Bank of Russia's NPS oversight activity is governed by Articles 31 and 35 of the NPS Law and Bank of Russia Regulation No. 380-P. This activity includes monitoring (data collection, systematisation, and analysis), assessment and issuing of assessment-based recommendations on modifications to the operations of the monitored entities and payment systems and payment infrastructure.

As a part of the NPS oversight, the Bank of Russia makes efforts to improve operations of NPS entities, as well as to develop PSs and payment infrastructures, and minimise the associated risks. Based on the results of the NPS oversight and assessments, the analysis of Russian and global trends in PS development, and international practices, including oversight standards, the Bank of Russia delivers its recommendations aimed at enhancing the efficiency and reliability of operations of oversight objects, improving the NPS regulation, promoting financial inclusion and the quality of financial services, and boosting competition in the payment services market.

This is the third¹ oversight report and the publication covers the results of the NPS oversight conducted by the Bank of Russia in 2016 – June 2018. The purpose of the publication is to increase the transparency of activity of Bank of Russia concerning oversight in NPS. This report includes key NPS development indicators and trends, findings of the analysis of certain NPS entities' activities, key changes in the NPS regulation, results of international cooperation in NPS oversight, and the results of the Bank of Russia's important payment system oversight, including their compliance with the PFMI.

¹ For the national payment system oversight results 2012-2014 and 2014-2016 (in Russian language) refer to the Bank of Russia website (http://www.cbr.ru/PSsystem/monitoring_p/).

1. Oversight in the National Payment System in 2016–2018

1.1. Indicators of the NPS development

As of 1 July 2018, the NPS included 524 MTOs (of which 92 EMOs¹), 35 PS operators², 50 PISPs, federal post offices, BPAs and PAs.

Compared to 1 July 2016, the number of MTOs contracted by 156, EMOs by 12, and PS operators by 1.

The number and value of funds transfers in PS³ increased by 18.4% and 8.8% respectively in 2017 compared to 2016, to total 8.9 billion transactions and ₹1,654.5 trillion.

In the course of the period from July 2016 until June 2018, operators of the following PSs were included in the PSO Register:

- United Settlement System Payment Service
- CONTACT⁴
- PLUSPAY
- Banking Cooperation System
- MOMENTOM
- NARODNAYA
- FedPay
- BitPoint.

In the course of the period from July 2016 until June 2018, operators of the following PSs were struck off the PSO Register:

- UNITED SETTLEMENT SYSTEM
- T
- CONTACT⁴
- InterExpress
- MultiCard
- ANELIK
- Universal Electronic Card (UEC)
- Regional Payment System

– International Money Transfers System LEADER.

As the number of the core NPS credit institutions was shrinking, their transactions continued to expand. In 2017, transactions credit institutions⁵ carry out at their customers' instructions⁶ and credit institutions' own transactions increased compared with the previous year by nearly a third in number and by 7.2% in terms of value (to 26.8 billion payments worth ₹667.7 trillion)⁷ (Chart 1). Transactions of individuals increased at an outpacing rate (by 36.5% in terms of quantity and by 35.8% in terms of value); this suggests that population are involved in money transfers, and retail payment services are gaining ground.

During this period, there was a rise in the offer of modern technology-based financial products (online and mobile banking, contactless technologies, and expanding functionality of card terminals) that boosted the development of remote payment services. In this context, the number of remote customer accounts continued to expand by 12.7% vs the 2016 reading (to 219.4 million accounts in 2017). In 2017, their share in active customer accounts rose to 82.2%.

In 2017, growth was also registered in the number of electronic technology-enabled customer transactions (Chart 2) that increased by more than a third against the previous year (to 25.4 billion orders) and their value grew by 10.5% (to ₹592.6 trillion).⁸ These changes were mainly enabled by individual's transactions, which registered the annual increase of 38.3% by number and 45.8% by value. In addition, one in five elec-

¹ For the list of PS operators refer to the Bank of Russia website (http://www.cbr.ru/PSsystem/oper_zip/).

² Including the Bank of Russia and the NSPK (see Appendix 1).

³ The BRPS and PSs included in the PSO Register (<http://www.cbr.ru/PSsystem/rops/>).

⁴ As CONTACT PS changed its operator, CONTACT PSO was subsequently struck off the PSO Register (Reg. No. 0033) and included in the PSO Register (Reg. No. 0044).

⁵ Transactions exclude transfers between customer accounts with the same bank, credit and deposit transactions, FX transactions, and securities transactions.

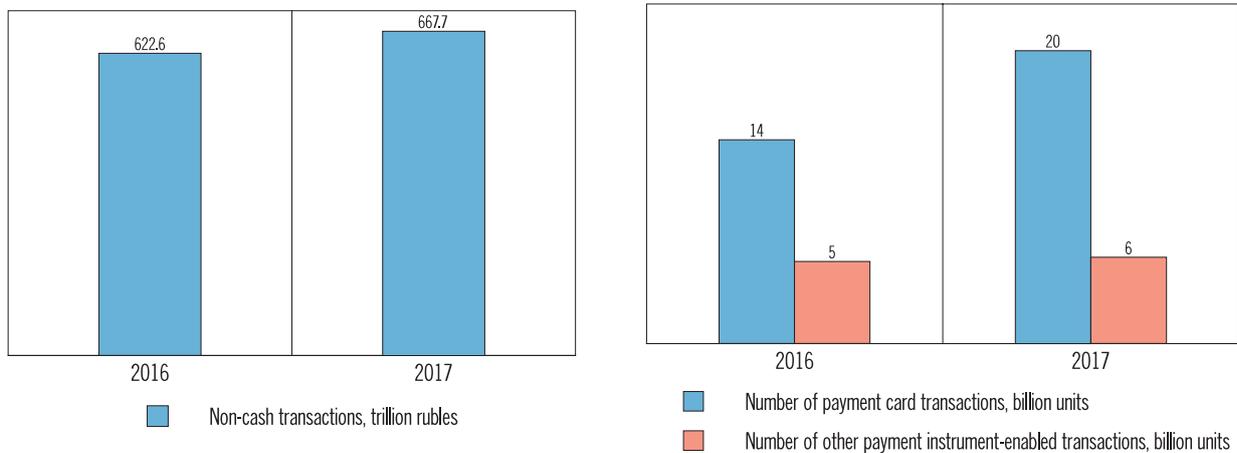
⁶ Here and elsewhere, individuals and legal entities other than credit institutions.

⁷ For reference: in 2018 H1, credit institutions carried out 16.6 billion transactions worth ₹346.8 trillion.

⁸ For reference: in 2018 H1, bank customers made 15.8 billion electronic technology-enabled transactions worth ₹308.2 trillion.

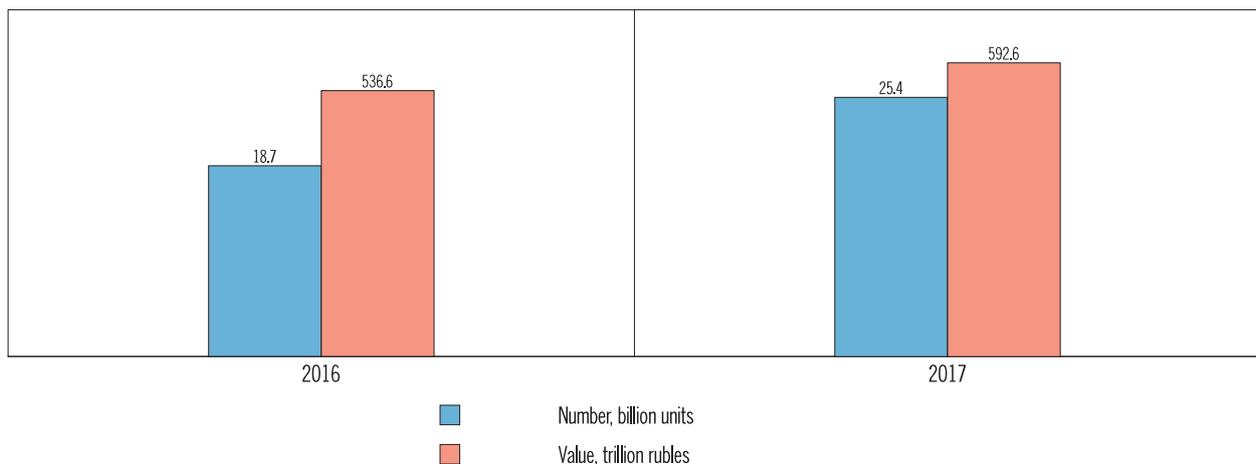
TRANSACTIONS EXECUTED BY CREDIT INSTITUTIONS AT THEIR CUSTOMERS' INSTRUCTIONS

Chart 1



ELECTRONIC TECHNOLOGY-ENABLED TRANSACTIONS OF CREDIT INSTITUTION CUSTOMERS

Chart 2



tronic retail payments was made via the Internet and (or) mobile devices.

Growth in non-cash transactions in 2016–2018 was driven by, among other things, infrastructure improvements and rising accessibility of payment services. Moreover, Mir PS, the largest national player, entered the payment services market.

Card and e-money payments for goods and services accounted for 39.6% of total retail sales, catering and paid services in 2017 (in 2016, 31.8%).

Payment card transactions in Russia and abroad demonstrated sustainable positive growth, increasing in 2017 by 34.3% in terms of quantity and by 23.7% in terms of value and totalling 24.0

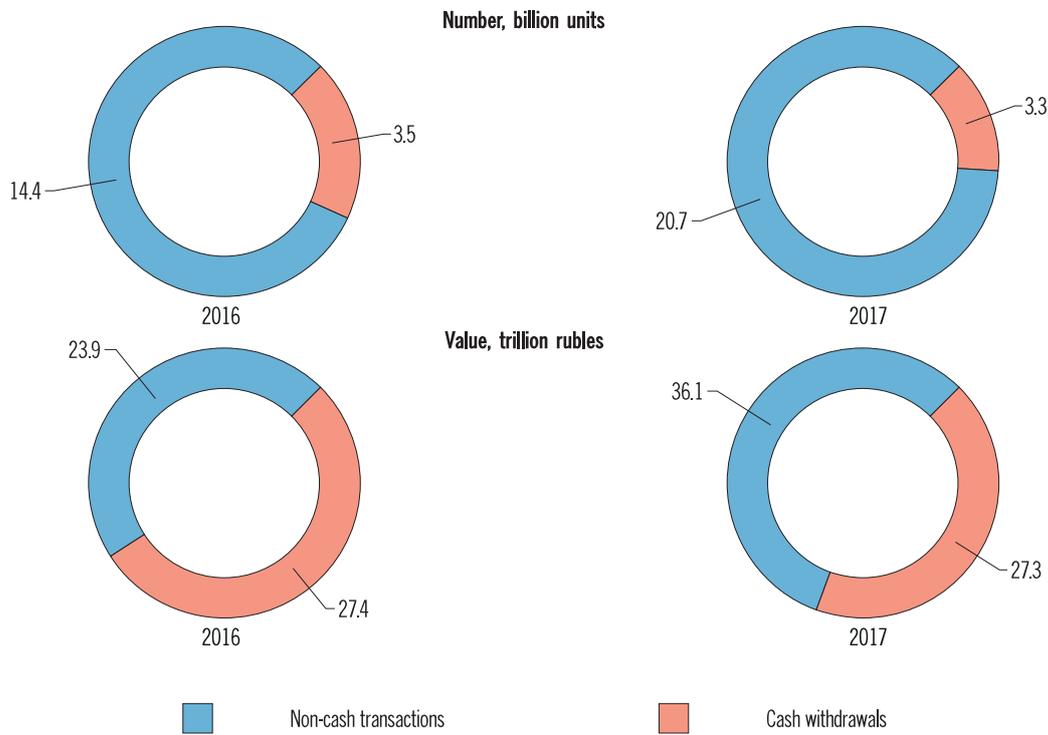
billion transactions worth ₴63.4 trillion,⁹ or 163 transactions worth ₴431.4 thousand per Russian resident (Chart 3).

In 2017, payment cards were used for non-cash transactions six times as often as for cash withdrawal. The share of non-cash transactions in total card transactions increased by 5.5 pp over the year to reach 86.1% in 2017. The value of such transactions accounted for more than a half of the total value of card transactions (57.0%) for the first time since the payment card market

⁹ For reference: in 2018 H1, 14.9 billion payment card transactions worth ₴35.9 trillion were carried out.

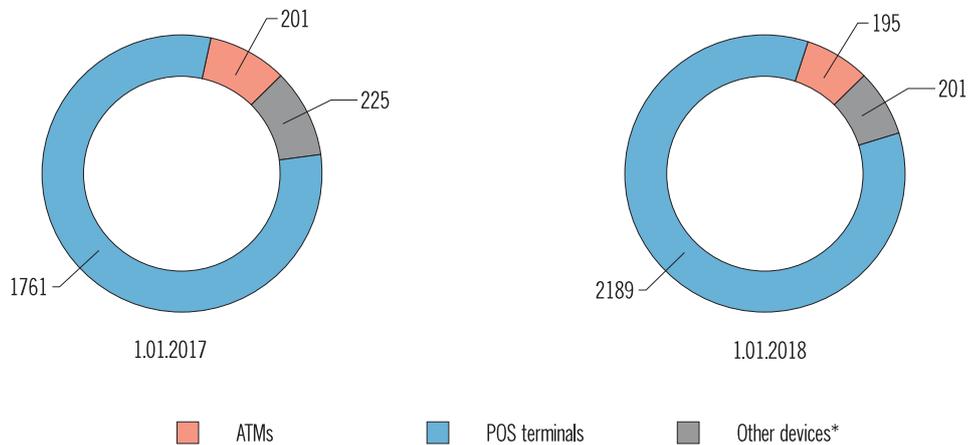
TRANSACTIONS BY HOLDERS OF RUSSIAN BANK-ISSUED PAYMENT CARDS

Chart 3



PAYMENT CARD TERMINALS (THOUSAND UNITS)

Chart 4



* Including electronic remote terminal units, electronic cash point terminals, and imprinters.

emerged. In 2017, a drop¹⁰ in cash withdrawals from payment cards was first registered (3.8% in terms of quantity and 0.4% in terms of value compared with 2016 readings).

To raise service quality and rate, and meet market needs, issuers and acquirers are offering new

high-tech products to cardholders. In particular, banks engage in contactless payments handy for small purchases. In 2017, 20.8% of cards issued in Russia supported contactless payment, which is now used in 10 out of 100 retail transactions.¹¹

In 2017, Russia launched a large-scale issue of national payment instruments. As of the end of

¹⁰ The indicator factors out a bank's reporting data submitted to the Bank of Russia from the Rosstat data. Other operations may include non-cash payments (e.g., invoice-based payment orders, receipts, etc.) and cash payments (e.g., payments made by individuals at markets and fairs).

¹¹ Operations other than transfers between customer accounts with the same bank, deposit and credit transactions, foreign exchange transactions, and securities transactions.

2017, the issue of Mir cards, including those used for budget payments, increased the total number of payment cards issued by Russian credit institutions by 6.4% to 271.0 million units as of 1 January 2018.

By early 2018, 31 million Mir cards were issued (more than 10% of the total card issue). At the same time, the efficiency of their use rose: the number of Mir card transactions increased more than 70-fold and the value more than 40-fold compared with 2016 (to 730.3 million transactions worth ₹1.8 trillion).

In 2017, the share of non-cash transactions in the total number and value of Mir transactions reached 77.6% and 44.1% respectively, while cash withdrawals accounted for 22.4% and 55.9%.

In 2017, the payment infrastructure was prepared for accepting Mir card payments throughout Russia. By July 2018, 341 credit institutions joined Mir PS, of which 325 banks accepted national payment instruments in their infrastructure and 152 banks issued Mir cards.

As trade and service companies joined the payment card infrastructure, non-cash transactions dynamically gained ground. In 2017, the number of POS terminals increased by 24.3%, to 2.2 million units. As many as 34.7 million terminal transactions worth ₹30.0 billion were made daily. Also, most ATMs enable customers to carry out non-cash transactions (Chart 4). As of 1 January 2018, the number of payment card terminals per one million citizens reached 17,604 units.¹²

The number of EMP used to transfer e-money issued by EMOs in 2017 increased by 16% to 366.1 million units. In 2017, they enabled 2 billion transactions worth ₹1.4 trillion¹³ (growth of 42.4% in number and 35.4% in value), with anonymous EMPs accounting for the bulk of such transactions (86.3% and 58.9% respectively).

¹² For reference: as of 1 July 2018, the number of POS terminals totalled 2,477 thousand units, ATMs – 193 thousand units, other devices – 203 thousand units. The number of payment card terminals per one million citizens stood at 19,566 units.

¹³ Including transfers of e-money and e-money balances, including cash.

1.2. NPS monitoring practice

1.2.1. Determination of NPS entities

In accordance with the NPS Law, PSs complying with the formal criteria may be recognised as systemically and socially important, as well as nationally important. As of 1 July 2018, the NPS includes two systemically important PSs, four socially important PSs (Chart 9),¹⁴ and 16 nationally important PSs (Chart 10). For details refer to Appendix 1 and Subsection 1.2.1.1 hereof.

1.2.1.1. Payment systems' eligibility for importance criteria (systemic, social and national importance)

Systemic and social importance of payment systems

Systemically and socially important PSs account for the bulk of funds transfers made through payment systems in Russia. Charts 5 and 6 show that in the total number and value of funds transfers made in 2017 through PSs, more than 98% of transfers in value terms were made through systemically important PSs, and more than 82% of transfers in quantitative terms were made through socially important PSs.

In the segment of systemically important PSs strongly affecting the payment market and its stability, as well as the financial system overall, due to their functional specifics, the BRPS accounted for the bulk of funds transfers in 2017 (88.4%), whereas 11.6% of transfers were made through the NSD PS. In 2016, these indicators came in at 89.3% and 10.7% respectively (see Section II.2).

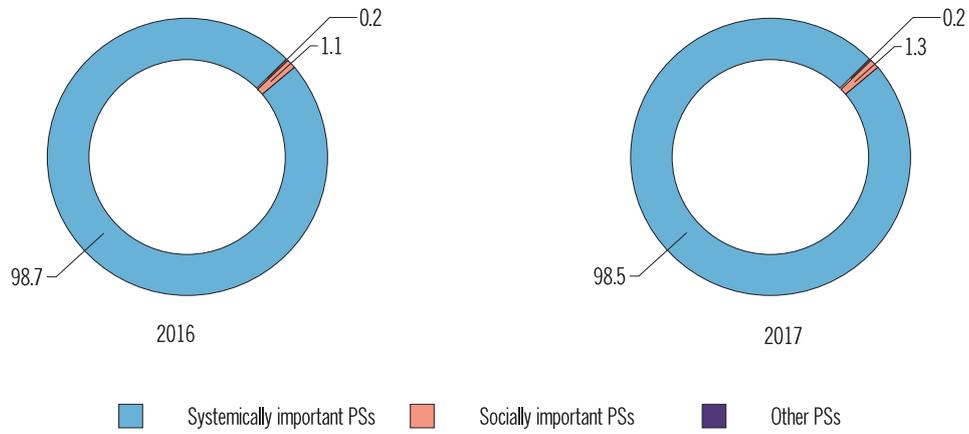
Socially important PSs differ from systemically important PSs as they process large number of small-value transfers. As a rule, socially important PSs specialise in one type of funds transfers. Visa and MasterCard transfer funds with the use of payments cards, transfers without a bank account dominate in KoronaPay, and Sberbank specialises in interbank funds transfers.

In 2017, socially important PSs facilitated 7.3 billion funds transfers worth ₹20.8 trillion, of which 10.7 million funds transfers in a foreign currency worth ₹2.7 trillion (Chart 7). Last year figures came in at 6.0 billion funds transfers worth

¹⁴ The status of systemically and socially important PS is confirmed by the analysis for 2018 Q1 and 2017.

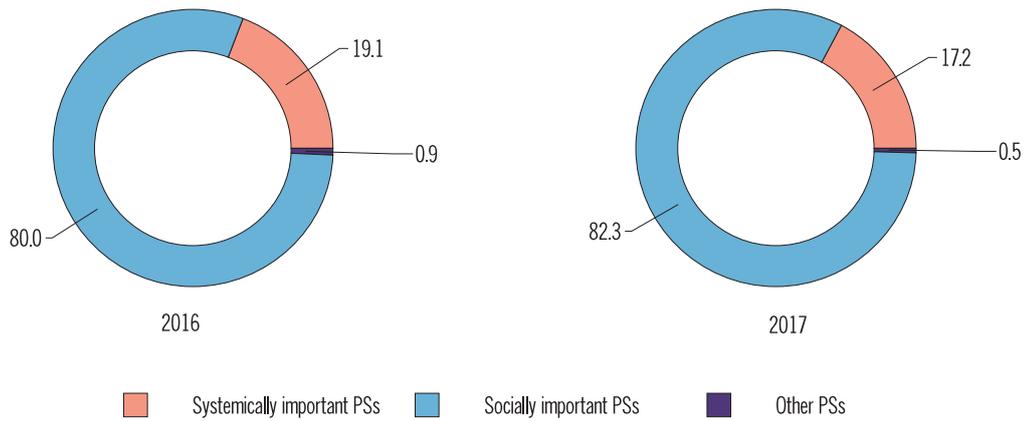
TRANSFERS WITHIN PAYMENT SYSTEMS BY VALUE (%)

Chart 5



TRANSFERS WITHIN PAYMENT SYSTEMS BY NUMBER (%)

Chart 6



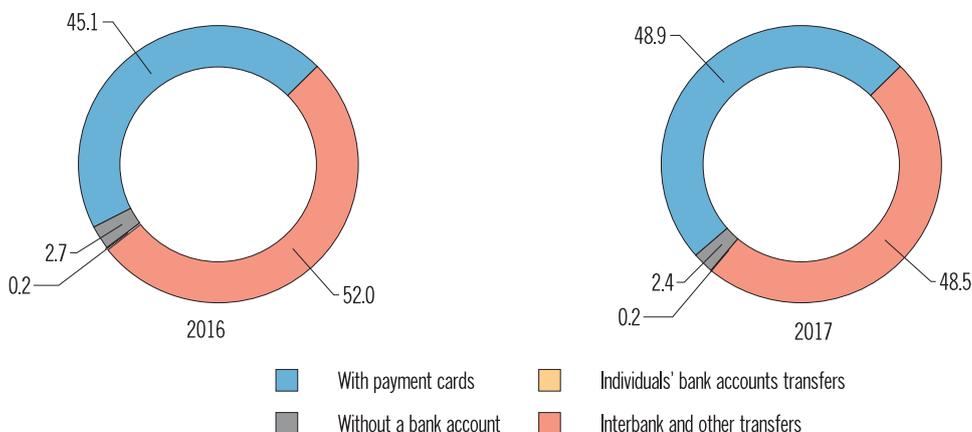
FUNDS TRANSFERS VIA SOCIALLY IMPORTANT PAYMENT SYSTEMS (%)

Chart 7



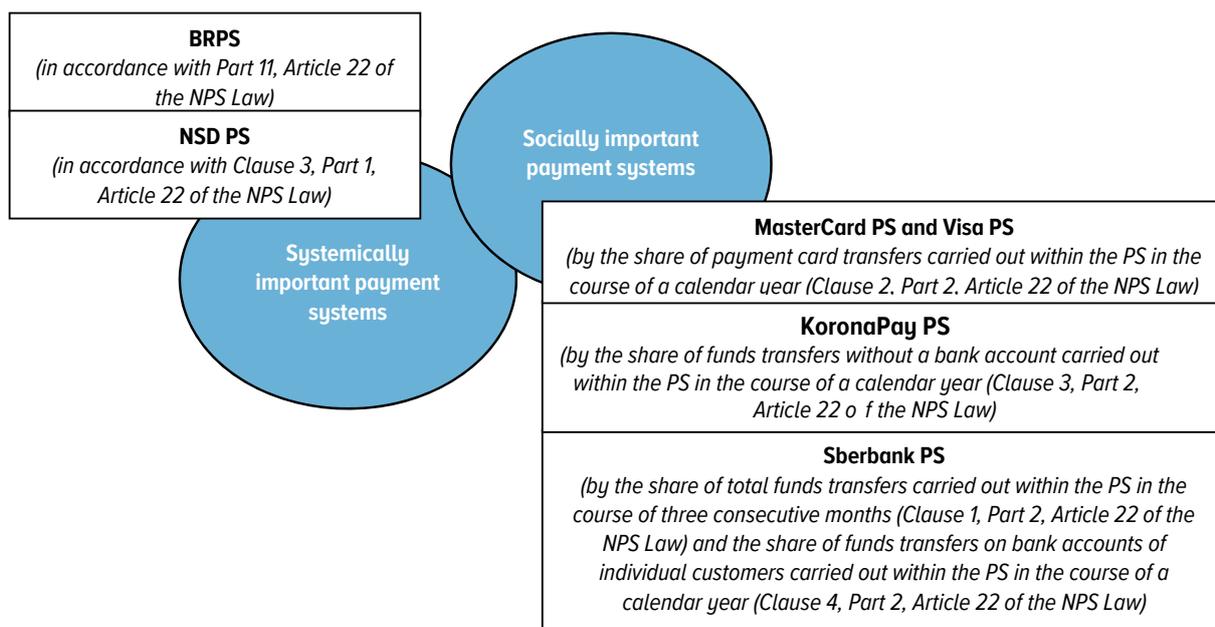
FUNDS TRANSFERS VIA SOCIALLY IMPORTANT PAYMENT SYSTEMS BY TRANSFER TYPE, VALUE (%)

Chart 8



SYSTEMICALLY AND SOCIALLY IMPORTANT PAYMENT SYSTEMS

Chart 9



₹16.9 trillion, of which 9.9 million FX transfers worth ₹2.4 trillion.¹⁵

Chart 8 shows funds transfers via socially important PSs by transfer type.

Given the values of funds transfers effectuated via systemically and socially important PSs, they are subject to special legislative risk management requirements. Furthermore, the Bank of Russia assesses these systems for compliance with the international standards (see Chapter II hereof).

The 2016 NPS analysis revealed that the approach to setting criteria for systemic and social importance of PSs revised and their relative values should take into account:¹⁶

- the effect of the PS on the financial market;
- market penetration of the PS; and
- interconnection of the PS with other infrastructures.

The respective amendments were made in 2017 to Parts 1 and 2, Article 22 of the NPS Law,

¹⁵ For reference: in 2018 H1, socially important PSs facilitated 4.1 billion funds transfers worth ₹11.3 trillion, of which 5.4 million FX transfers worth ₹1.1 trillion.

¹⁶ This approach is in line with the international practice for determining the importance of retail PSs, in particular, the European Central Bank's approach.

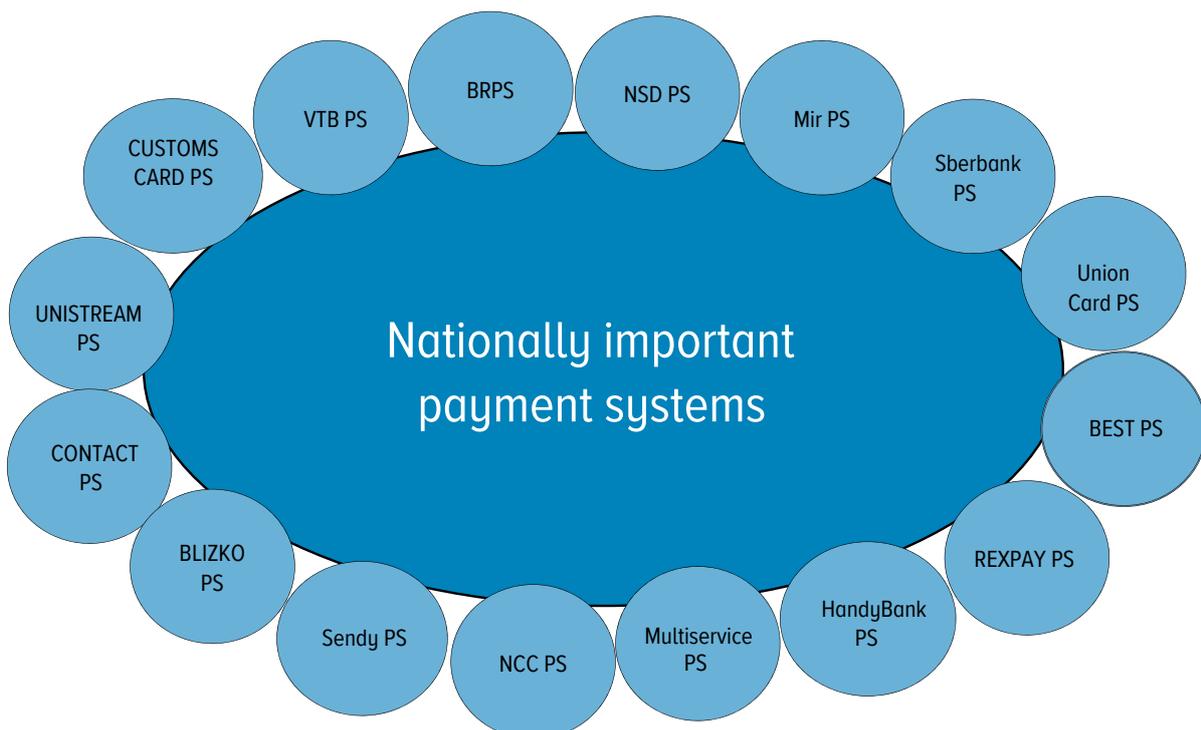
CRITERIA FOR SYSTEMIC AND SOCIAL IMPORTANCE OF PAYMENT SYSTEMS IN ACCORDANCE WITH PARTS 1 AND 2, ARTICLE 22 OF THE NPS LAW

Table 1

Until 3 July 2017 (Criterion and its value)	From 3 July 2017 (Criterion and its value)
Systemically important payment systems	
In the course of three consecutive months carried out within the PS, the share of total funds transfers worth \geq ₺15 trillion , of which at least one transfer is worth \geq ₺100 million	In the course of three consecutive months carried out within the PS, the share of funds transfers worth \geq 20% of total funds transfers carried out by credit institutions
The PS is used by the Bank of Russia to perform funds transfers for the purpose of refinancing credit institutions and settlement of operations in the open market	
The PS is used to make funds transfers under transactions performed in organised markets	
Socially important payment systems	
In the course of three consecutive months, carried out within the PS the share of total funds transfers worth \geq ₺1 trillion with > 50% of these funds transfers worth \leq ₺100 thousand each	In the course of three consecutive months carried out within the PS the share of funds transfers worth \geq 40% of the total funds transfers carried out within the PS, and > 50% of funds transfers carried out in the PS worth \leq ₺100 thousand each
In the course of a calendar year carried out within the PS facilitates \geq 500 million payment card transfers	In the course of a calendar year carried out within the PS the share of payment card transfers worth \geq 25% of the total value of payment card transfers carried out within the PS
In the course of a calendar year carried out within the PS facilitates \geq 13 million funds transfers without a bank account	In the course of a calendar year carried out within the PS funds transfers without a bank account worth \geq 25% of the total value of funds transfers without a bank account carried out within the PS
In the course of a calendar year carried out within the PS facilitates \geq 2 million funds transfers between bank accounts of individual customers (other than payment card transfers)	In the course of a calendar year carried out within the PS facilitates funds transfers between bank accounts of individual customers (other than payment card transfers) worth \geq 50% of the total value of funds transfers between bank accounts of individual customers carried out within the PS

NATIONALLY IMPORTANT PAYMENT SYSTEMS

Chart 10



and recognised in Bank of Russia Ordinance No. 4443-U (Table 1).

PS's compliance with systemic and social importance criteria is monitored on a quarterly and annual basis using the following data:

- Reports of PS operators included in the PSO Register; and
- Bank reports reflecting payment card transactions, funds transfers without a bank account (including e-money), funds transfers between bank accounts of individuals and legal entities other than credit institutions.

National importance of payment systems

The criteria of nationally important PSs¹⁷ include the direct or indirect control of the Russian Federation, the Bank of Russia, or Russian nationals over PSOs and PISPs (other than the PSs' settlement centre) and information technologies that meet the Bank of Russia's requirements agreed with the Russian Government.¹⁸

Out of the 16 nationally important PSs, 13 PSs are recognised as nationally important by the Bank of Russia, and three PSs (BRPS, Mir PS, and NSD PS) are nationally important in accordance with Part 14, Article 22 of the NPS Law (Appendix 1).

In the course of the period between July 2016 and June 2018, the Bank of Russia recognised PSs as nationally important:

- CONTACT¹⁹
- Sendy.

During the same period, operators of three nationally important PSs were struck off the PSO Register:

- MultiCard
- Universal Electronic Card (UEC).

1.2.1.2. Money transfer operators' compliance with the importance criteria in the payment services market

In accordance with Part 2, Article 30.5 of the NPS Law, the Bank of Russia recognises credit institutions as important in the payment ser-

vices market based on the monitoring of their compliance with the special criteria established by Bank of Russia Ordinance No. 3439-U, dated 6 November 2014, 'On the Procedure for the Bank of Russia to Recognise Credit Institutions as Important in the Payment Services Market'.

The Bank of Russia established four criteria of credit institutions' importance in the payment services market (Table 2). They are associated with the value of payment and credit card transactions, issue of payment and credit cards, infrastructure (ATMs, electronic terminals, and imprinters) used for payment card transactions, and e-money transfers using prepaid cards. The regulator also determined their share that should equal or exceed 2% in a federal district or in the Russian Federation.

The Bank of Russia determines the compliance of credit institutions with the importance criteria in the payment services market on an annual basis²⁰ using the reporting data received from the credit institutions.

The Bank of Russia includes credit institutions it recognises as important in the payment services market in the Register of Important Credit Institutions (ICI Register). The ICI Register is published in the Bank of Russia Bulletin and posted in the National Payment System section of the Bank of Russia website.²¹

In 2018, 36 credit institutions were included in the ICI Register. Compared with the 2017 ICI Register, the latest register includes three new recognised credit institutions and excludes eight credit institutions, which were previously recognised as important in the payment services market, due to, among other things, the revised importance criteria.

Indicators included in the importance criteria suggest that the total share of important credit institutions in the payment services market exceeds 75% in each federal district of the Russian Federation in 2017.

In accordance with Part 2, Article 30.5 of the NPS Law, credit institutions the Bank of Russia recognises as important in the payment ser-

¹⁷ In accordance with Part 13, Article 22 of the NPS Law.

¹⁸ Bank of Russia Ordinance No. 3342-U, dated 25 July 2014, 'On the Requirements for Information Technologies Used by Payment Infrastructure Service Providers for the Payment System to be Recognised as Nationally Important'.

¹⁹ As CONTACT PS changed its operator, CONTACT PSO was subsequently struck off the PSO Register (Reg. No. 0033) and included in the PSO Register (Reg. No. 0044).

²⁰ No later than 1 April of the year following the reporting calendar year.

²¹ <http://www.cbr.ru/PSsystem/reestr/>.

BANK OF RUSSIA-ESTABLISHED CRITERIA OF CREDIT INSTITUTIONS' IMPORTANCE
IN THE PAYMENT SERVICES MARKET

Table 2

	Criterion 1 The share of payment and credit card transactions executed by a credit institution in a Russian federal district (Russian FD) throughout a calendar year in the total value of payment and credit card transactions executed by credit institutions in the Russian FD throughout the calendar year.	≥ 2%
	Criterion 2 The share of payment and credit cards issued by a credit institution in a Russian FD as of 1 January of the year following the reporting year in the total number of payment and credit cards issued by credit institutions in the Russian FD as of 1 January of the year following the reporting year.	
	Criterion 3 The share of credit institution-owned ATMs, terminals, and imprinters used in payment card transactions and situated in a Russian FD as of 1 January of the year following the reporting year in the total number of credit institution-owned ATMs, terminals, and imprinters situated in the Russian FD as of 1 January of the year following the reporting year.	
	Criterion 4 The share of e-money transfers using prepaid cards executed by a credit institution in the Russian Federation over a calendar year in the total value of e-money transfers using prepaid cards executed by credit institutions in the Russian Federation over the calendar year.	

RESULTS OF THE PA AND BPA MONITORING IN 2016-2017

Table 3

Indicator	2016	2017 ¹
Number of respondent MTOs	618	550
Number of BPAs engaged by MTOs whose materials are included in the summary	1,349	964
Number of PAs serviced by MTOs whose materials are included in the summary	3,270	3,277
BPA operations, billion rubles	1,548.2	3,238.9
BPA operations, million transactions	640.2	673.3
PA-accepted payments, billion rubles	3,331.9	4,872.2
PA-accepted payments, million transactions	1,647.4	1,715.8

¹ In 2017, the methodology for PA and BPA monitoring was amended.

Source: BPA and PA survey data provided by credit institutions.

vices market should be individual participants of the NSPK.²²

1.2.2. Monitoring over NPS entities' activities and payment services

1.2.2.1. Bank payment agents and payment agents

BPAs and PAs play an important role in expanding financial inclusion in the payment services market, as noted in the Financial Inclusion Strategy for Russia in 2018–2020.²³

Within its mandate to oversee the NPS, the Bank of Russia annually monitors BPAs engaged by MTOs in accordance with Article 14 of the NPS Law, and PAs providing payment acceptance services in accordance with Federal Law No. 103-FZ.

Bank payment agents (BPAs)

Credit institutions-MTOs engage BPAs in services to accept cash from individuals for person-to-person transfers, loan repayments, payments for utility, mobile and telecommunication services (TV and Internet), budget payments, e-wallet replenishment, and payments for other goods and services. Credit institutions also engage BPAs to hand bank cards issued by these credit institutions to individuals.

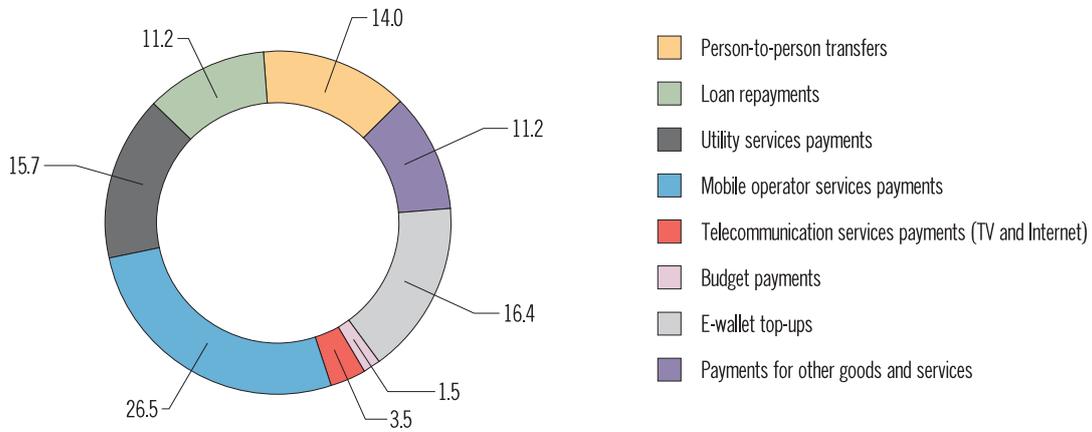
According to the survey, BPAs carried out 673.3 million transactions worth ₴3,238.9 bil-

²² As of 1 July 2018, all the 36 credit institutions recognised by the Bank of Russia as important in the payment services market were individual participants of Mir PS.

²³ Financial Inclusion Strategy for Russia in 2018–2020 (http://www.cbr.ru/Content/Document/File/44104/str_30032018.pdf).

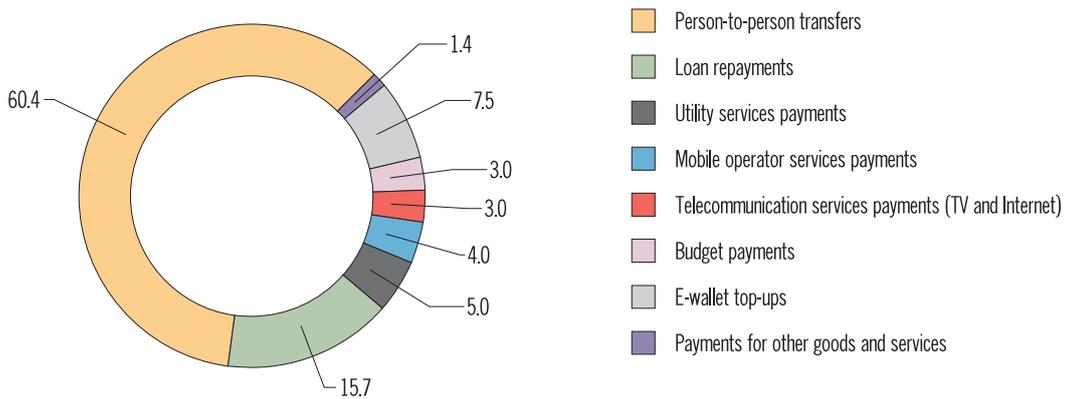
BPA OPERATIONS (BY NUMBER OF TRANSACTIONS) IN 2017 (%)

Chart 11



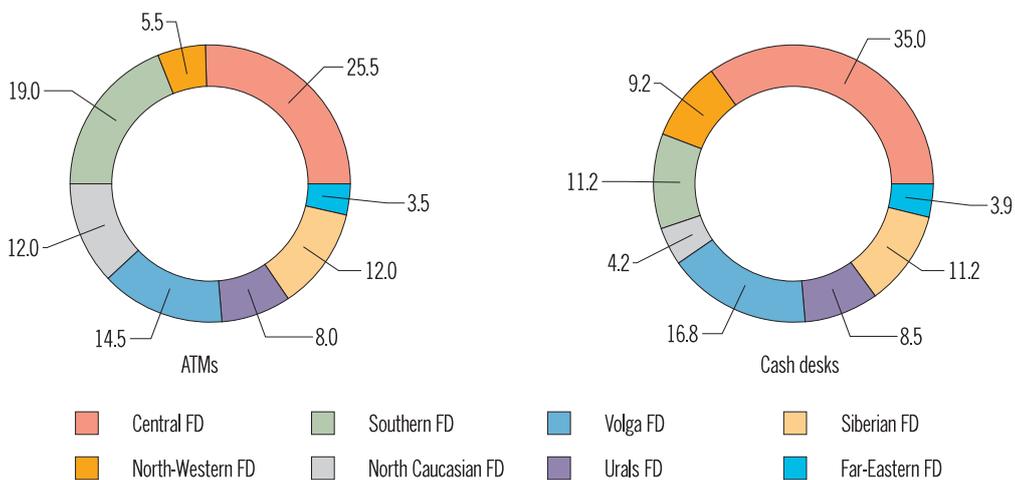
BPA OPERATIONS (BY VALUE OF TRANSACTIONS) IN 2017 (%)

Chart 12



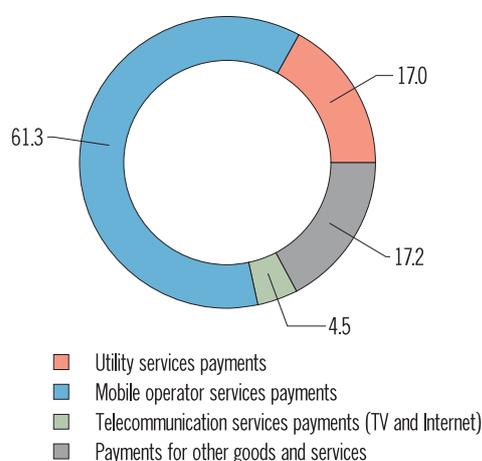
BPA INFRASTRUCTURE AS OF 1 JANUARY 2018 (BY FEDERAL DISTRICT) (%)

Chart 13



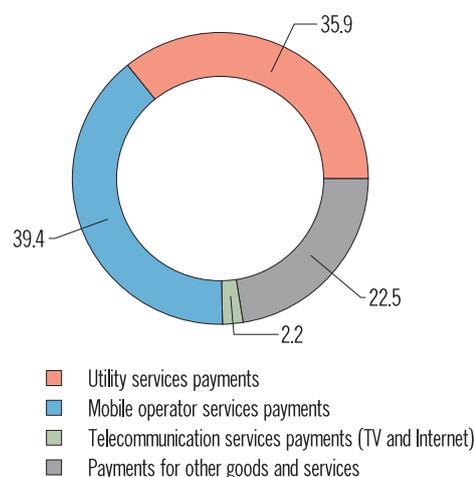
PA-ACCEPTED RETAIL PAYMENTS (BY NUMBER OF TRANSACTIONS) IN 2017 (%)

Chart 14



PA-ACCEPTED RETAIL PAYMENTS (BY VALUE OF TRANSACTIONS) IN 2017 (%)

Chart 15



lion in 2017 (in 2016, 640.2 million transactions worth ₺1,548.2 billion).

The majority of BPA-executed transactions (26.5% in 2017; 32.7% in 2016) were mobile services payments, whereas BPAs accepted the largest amount of cash funds as transfers to individuals (60.4% in 2017, 32.3% in 2016) (Charts 11 and 12).

In 2017, BPAs issued 10.3 million cards on behalf of the credit institutions, to individuals; 99.2% of these cards were prepaid cards.²⁴

In 2017, 52.0% of BPA-executed transactions were ATM-enabled, whereas 92.4% of cash funds were accepted through BPA cash desks (in 2016, 53.4% and 74.9% respectively).

At the same time, in 2017, ATMs continued to prevail in the BPA payment infrastructure totalling 280.6 thousand units (57.4% of the total infrastructure of these NPS entities), in 2016 - 831.0 thousand units (84.5% of the infrastructure).

In 2017, the provision of BPA services was the highest in the Central Federal District (Chart 13) where most BPA transaction points²⁵ are situated (120.7 thousand points, 29.8% of the total number), whereas the Far Eastern Federal District

(with the lowest density) had only 14.8 thousand transaction points (3.7% of the total number).²⁶

Payment agents (PAs)

PAs accept cash from individuals as payments for utility, mobile and telecommunication services (TV and Internet), and as payment for goods and services.

In 2017, PAs facilitated 1,715.8 million individuals' payment transactions worth ₺4,872.2 billion (in 2016, 1,647.4 million transactions worth ₺3,331.9 billion), exceeding the number and value of BPA-executed transactions by a factor of 2.5 and 1.5 respectively (in 2016, by a factor of 2.6 and 2.2 respectively).

In 2017, mobile service payments accounted for the bulk of PA-executed transactions in both quantity and value terms (61.3% in terms of quantity and 39.4% in terms of value). Utility payments made up a sizeable share (35.9%) of the total PA-executed transactions.

In 2016, mobile service payments accounted for the largest share of PA-executed transactions in terms of quantity (70.1%), whereas other payment transactions prevailed in value terms (44.4%)²⁷ (Charts 14 and 15).

In 2017, 68.3% of PA-executed transactions were payment terminal-enabled, whereas 78.1% of

²⁴ In the 2017 survey BPAs were first requested to provide information about card issues.

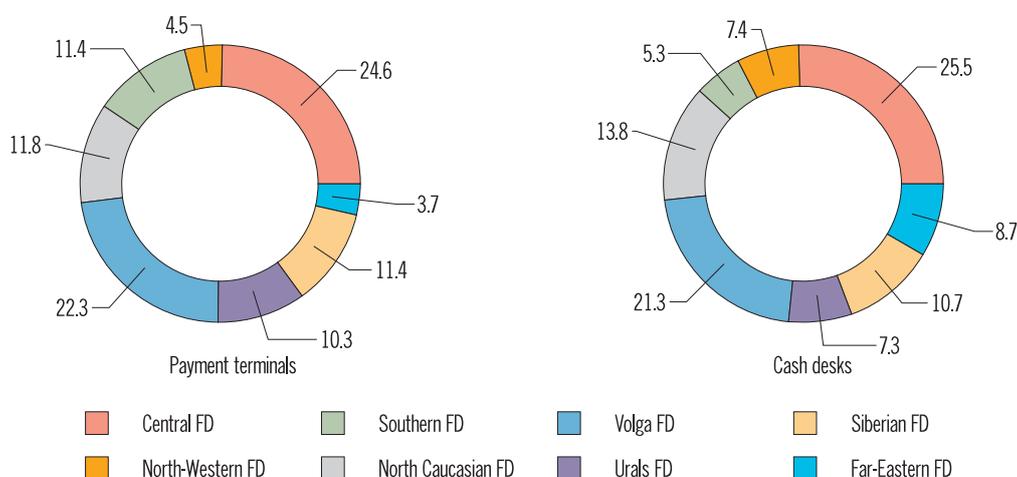
²⁵ A BPA transaction point (a PA payment acceptance point) means a location where a BPA/PA conducts its activity. One location means one transaction point even if several cash desks or cash receiving terminals are located there.

²⁶ In the 2017 survey, BPAs were requested to provide information about transaction points for the first time.

²⁷ In the 2016 survey, information on the number and value of other PA-executed payment transactions included, among other things, telecommunication services payments.

PA INFRASTRUCTURE AS OF 1 JANUARY 2018 (BY FEDERAL DISTRICT) (%)

Chart 16



cash funds were accepted through PA cash desks. In 2016, payment terminal-enabled were 78.2% of PA-executed transactions in terms of quantity and 62.8% of transactions in terms of value.

In 2017, payment terminals continued to prevail in the PA payment infrastructure totalling 349.8 thousand units (82.9% of the total infrastructure of these NPS entities), in 2016 – 313.7 thousand units (58.0% of the infrastructure).

Broken down by region, PAs were most active in the Central Federal District (80.1 thousand payment points, or 24.4% of their total number) and the Volga Federal District (78.1 thousand payment points, or 23.8% of their total number). PAs were least active in the North-Western Federal District (15.8 thousand payment points, or 4.8% of their total number) and the Far Eastern Federal District (11.9 thousand payment points, or 3.6% of their total number)²⁸ (Chart 16).

According to the survey main innovations BPAs/PAs introduced in 2016–2018 implemented the use of QR-codes and bar-codes for payments, and counterfeit money recognising technologies (for 1,000- and 5,000-ruble notes).

The survey revealed the following promising areas in BPA/PA activity:

- further expansion of advanced payment technologies (e.g., QR-codes and bar-codes for payments);
- software update to speed up payment processing;

- improvement of customer communication (including the use of remote service channels to settle disputes); and
- improvement of the fee policy.

1.2.2.2. Federal post offices

In accordance with Article 35 of the NPS Law and Bank of Russia Ordinance No. 2837-U, dated 20 June 2012,

‘On the Procedure for the Bank of Russia to Request and Receive Information from Federal Post Offices’, the Bank of Russia monitors on an annual basis the operations associated with payment services of federal post offices acting as NPS entities.²⁹

Federal post offices facilitate postal transfer service associated with acceptance, processing, transportation (transmission) and delivery of cash funds with the use of postal and electronic communication in accordance with Federal Law No. 176-FZ, dated 17 July 1999, ‘On Postal Service’.

Postal transfer services are executed in accordance with the Postal Service Rules approved by Ministry of Digital Development, Communications and Mass Media Order No. 234, dated 31 July 2014.

Furthermore, federal postal offices:

- participate in funds transfer service as BPAs under the agreements made with MTOs in accordance with Article 14 of the NPS Law; and

²⁸ In the 2017 survey, PAs were requested to provide information about payment points for the first time.

²⁹ Payment services: postal transfer, payment acceptance, and funds transfers.

NUMBER OF RUSSIAN POST BRANCHES BY FEDERAL DISTRICT
OF THE RUSSIAN FEDERATION AS OF 1 JANUARY 2018

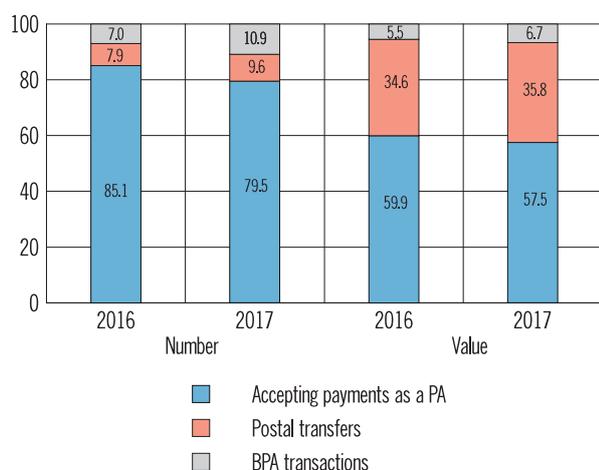
Table 4

Federal district	Number of Russian Post branches, thousand units	
	Total	Of which payment ser- vices providers*
Central Federal District	10.9	9.8
North-Western Federal District	4.1	3.3
Southern Federal District	3.8	3.7
North Caucasian Federal District	2.1	1.8
Volga Federal District	10.4	9.4
Urals Federal District	2.9	2.7
Siberian Federal District	6.0	5.5
Far Eastern Federal District	2.1	1.9
Russian Post, total	42.3	38.1

* The number of Russian Post branches providing postal transfer service, payment acceptance as PAs and participating in funds transfers services as BPAs.

PAYMENT SERVICES BY THE RUSSIAN POST (%)

Chart 17



Source: Russian Post survey.

- accept payments as PAs in accordance with Federal Law No. 103-FZ.

Russian Post

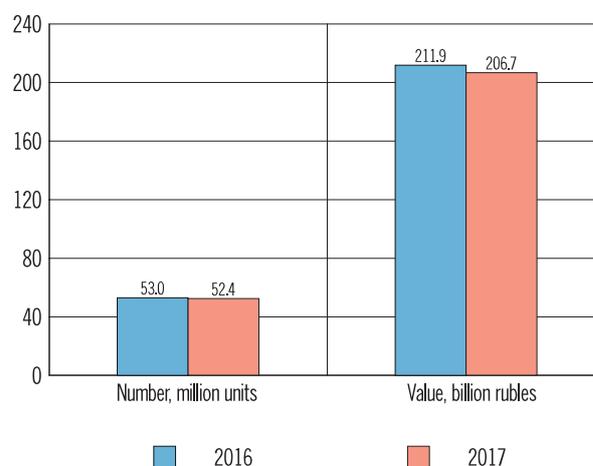
In 2017, the total number of Russian Post branches exceeded 42 thousand units, of which more than 38 thousand branches provided payment services (Table 4).

An important milestone was the establishment in 2016 of PJSC Post Bank; the entity develops a large-scale regional network in Russian Post branches to enhance financial inclusion in Russia.

Payment acceptance accounted for the bulk of the payment services provided by the Russian

POSTAL TRANSFERS BY THE RUSSIAN POST

Chart 18



Post as a PA both in terms of quantity (79.5% in 2017 and 85.1% in 2016) and in terms of value (57.5% in 2017 and 59.9% in 2016) (Chart 17).

Postal transfers by the Russian Post

In 2017, the Russian Post executed 52.4 million postal transfers worth ₽206.7 billion, slightly underperforming compared to the 2016 readings by 1.1% and 2.4% (Chart 18). An average postal transfer totalled ₽3,941 in 2017 (₽3,994 in 2016).

The Russian Post made most postal transfers within the Russian territory in 2017, the same as in 2016 (in 2017, 97.8% of the total number of postal transfers and 95.9% of their total value;

in 2016, 97.9% and 96.4% respectively). Postal transfers of individuals to legal entities prevailed in the structure of domestic postal transfers, coming in at 63.3% of the total number and 52.7% of the total value (in 2016, 61.2% and 48.4% respectively).

Person-to-person postal transfers prevailed in the structure of international postal transfers, coming in at 90.7% of the total number and 87.5% of the total value (in 2016, 89.6% and 85.7% respectively).

The Central Federal District accounted for the largest share of domestic postal transfers (in 2017, 32.1% in terms of quantity and 29.5% in terms of value; in 2016, 29.1% and 30.4% respectively).

The North Caucasian Federal District accounted for the lowest share of domestic postal transfers (in 2017, 3.2% in terms of quantity and 3.0% in terms of value; in 2016, 3.3% and 3.0% respectively).

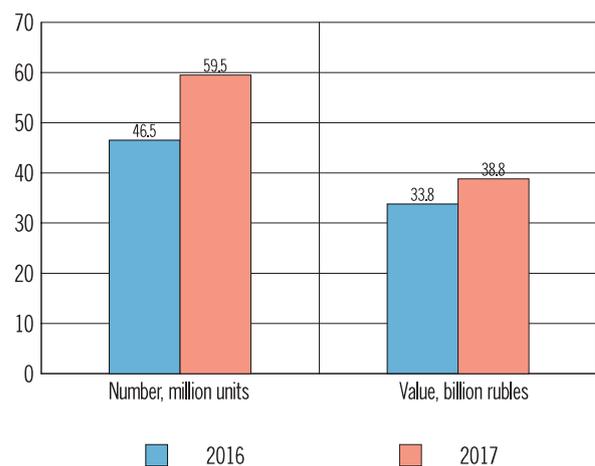
BPA operations of the Russian Post

In 2017, the Russian Post acting (as a BPA) executed 59.5 million payments worth ₺38.8 billion; thus, the number and value of payments increased compared with 2016 figures by 28.1% and 14.7% respectively (Chart 19). The average payment decreased in 2017 compared with the 2016 reading from ₺727 to ₺651.

Utility payments accounted for the bulk of payments (67.9% in terms of quantity and 79.8% in terms of value; in 2016, 74.7% and 87.1% respectively) (Chart 20).

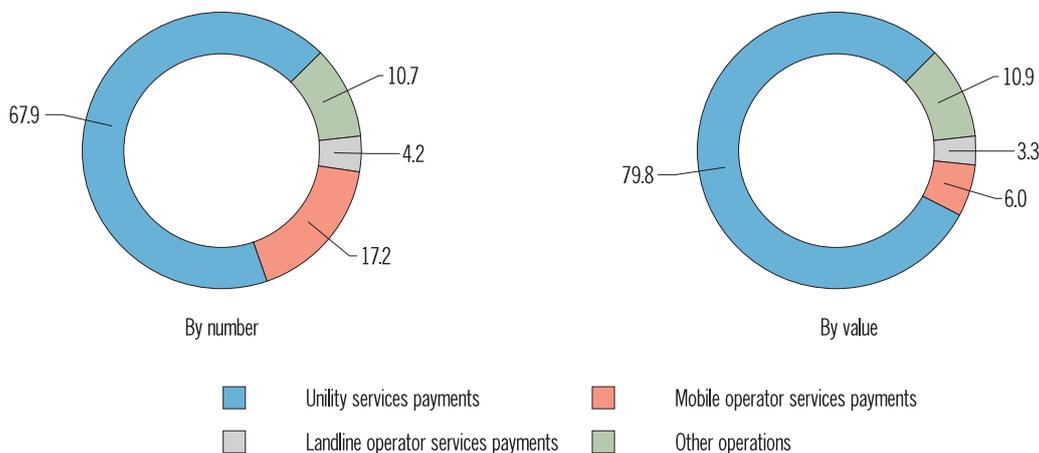
The Russian Post carried out most transactions as a BPA in the Siberian Federal District (40.9% in 2017 and 34.2% in 2016), whereas such transactions had the highest value in the Volga Federal District (24.9% in 2017 and 34.1% in 2016). In 2017, the Southern Federal District accounted for the lowest number (0.9%) and value (1.6%) of transactions the Russian Post performed as

NUMBER AND VALUE OF TRANSACTIONS THE RUSSIAN POST EXECUTED AS A BPA Chart 19



TRANSACTIONS THE RUSSIAN POST EXECUTED AS A BPA IN 2017 (%)

Chart 20



a BPA. In 2016, the Russian Post carried out no transactions as a BPA in the North Caucasian Federal District.

PA operations of the Russian Post

The Russian Post accepts payments for utility services, electronic and mobile communication, Internet and cable TV, nursery schools, education, duties and fines, as its main financial operations.

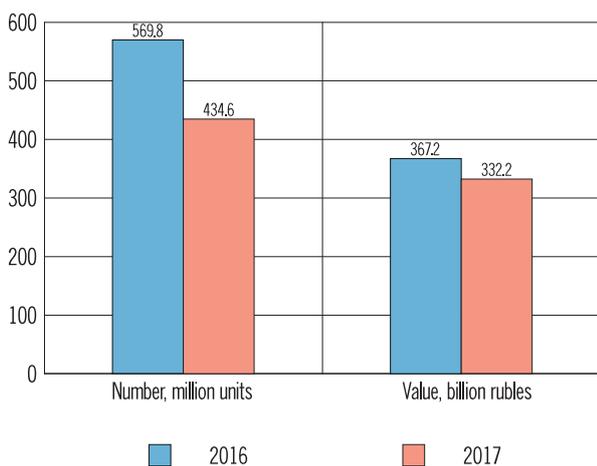
In 2017, the number and value of payments accepted by the Russian Post as a PA from individuals came in at 434.6 million payments worth

₽332.2 billion, which is 23.7% and 9.5% lower than the 2016 readings (Chart 21). At the same time, the average payment increased in 2017 compared with the 2016 reading from ₽644 to ₽764.

Utility payments accounted for the largest share of payments, the same as in 2016 (Charts 22 and 23), – 76.7% in terms of quantity and 87.0% in terms of value (in 2016, 66.5% and 82.6% respectively).

Broken down by federal district, the largest number and value of payments accepted by the Russian Post as a PA were registered in the Volga Federal District (in 2017, 31.5% by number and 28.5% by value; in 2016, 31.3% and 29.9% respectively), whereas the lowest readings were recorded in the North Caucasian Federal District (in 2017, 2.3% by number and 3.1% by value; in 2016, 2.7% by number) and the Urals Federal District (in 2016, 3.2% by value).

NUMBER AND VALUE OF PAYMENTS THE RUSSIAN POST ACCEPTED AS A PA Chart 21

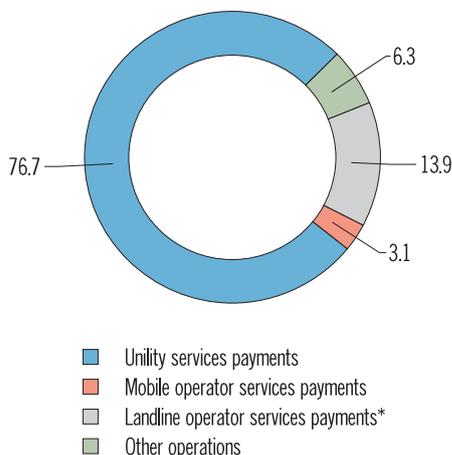


1.2.3. Payment services market development

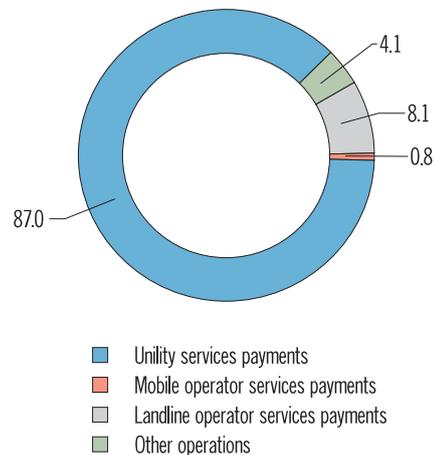
The intensive development of e-commerce, high public participation in digital technologies, and innovative payment products drive and transform the Russian payment services market.

The Bank of Russia focuses on the development of financial technologies, including the pay-

PAYMENTS THE RUSSIAN POST ACCEPTED AS A PA IN 2017, BY NUMBER (%) Chart 22



PAYMENTS THE RUSSIAN POST ACCEPTED AS A PA IN 2017, BY VALUE (%) Chart 23



* Telephone (bar mobile) operators and internet providers.

ments-related ones.³⁰ Innovations and new payment products, which influence consumer behaviour and the payment market as a whole, call for the improvement of the Bank of Russia's NPS oversight policy.

In 2016–2018, non-financial companies entered the payment services market to offer cutting-edge services. On the back of the rising popularity of settlement aggregators and similar services, the Bank of Russia monitored their operations in Russia in 2017–2018 as part of its oversight.³¹ The monitoring identified main business lines of companies served by payment aggregators (including online stores, online services, public services, and charities). The polled payment aggregators provide services to nearly 30 thousand firms whose monthly turnover comes in at ₺21 billion and these figures tend to grow.

The main advantage of payment aggregators is a wide choice of payment methods (including payment cards and e-money), as well as affordable fees and low time costs of connecting goods and services suppliers.

The emergence of NFC chips allowing quick payments for goods and services not only by cards but also via smartphones, watches or rings made an increasing number of customers switch to such payment methods. The fast spread of these payment methods can be considered an essential trend in 2016–2018.

Whereas until recently smartphone users focused on contactless payments, currently, even more attractive payment methods emerge, e.g., payments enabled by iris scanning, voice or selfie.

QR-code payments are gaining ground in Russia and worldwide. For instance, the Alipay payment service is entering the market to allow its users make payments both in Alibaba Group online stores, and points of sales in China and other countries.

The increasingly popular social media and messengers drive the development of new payment methods. Thus, in 2017, a Facebook-owned payment service was licensed by the Central Bank of Ireland, while publicly available data suggest that

one in five WeChat users makes cash transactions via the Chinese messenger. This trend is also emerging in Russia. For instance, in 2018, VKontakte, a social networking service, enabled its users to make payments via the VK Pay platform.

The existing PSs and e-money operators have been developing intensively to offer new products and services, loyalty programmes and partnerships to guarantee convenient, fast and easy payments.

The above innovations are coupled with improved payment services and applications offered by major credit institutions in the retail payment services market. In particular, in 2016–2018, the p2p-segment developed for customers of a same credit institution and its partner-banks.

1.3. NPS regulation developments

In 2016–2018, amendments to Russian laws as regards the NPS regulation, including NPS oversight and supervision policies, addressed the following issues:

- updating conditions of transactions made with the use of the national payment instrument in the Russian Federation, and expanding the list of NSPK individual participants with foreign banks, foreign central (national) banks, and international financial organisations;
- determining the specifics of cross-border funds transfers via PSs, whose operators are registered with the Bank of Russia, should a foreign state ban receiving funds transfers from the Russian Federation, using Russia-located PISP services, or participating in a PS;
- empowering the Bank of Russia to determine indications of unauthorised transactions, form and maintain the database of (attempted) unauthorised funds transfers, and updating the rights and obligations of MTOs if such signs are revealed;
- extending the functionality of a special PA bank account should a BPA (subagent) supplement its operations with retail payment acceptance performed by PAs;
- determining approaches to setting criteria for recognising a PS systemically and (or) socially important taking into account the in-

³⁰ The respective plans are released in the Guidelines for Financial Technologies Development for 2018–2020 (<http://www.cbr.ru/fintech/>).

³¹ Non-resident payment aggregators were excluded from the survey.

ternational practice for determining the importance of retail PSs;³²

- updating rules for using cash register equipment in cash settlements and payment card settlements;

- establishing requirements for operations of EMOs transferring retail customers' instructions to credit their e-money balance with funds deposited by a corporate subscriber and (or) a retail customer of a communications services provider;

- obliging credit institutions in accordance with a consumer loan agreement to inform borrowers about their current debt to the lender and the available loan with a lending limit after borrowers make transactions with the use of EMPs through which the borrowers were granted consumer loans; and

- reducing the period during which a PS operator should notify the Bank of Russia about new fees or a fee increase.

Amendments to Bank of Russia documents also reflect the improvements in the Bank of Russia's regulation, oversight and supervision over payment market participants in 2016–2018. The Bank of Russia made the following revisions:

- revising the procedure for NPS oversight and supervision following the centralisation of NPS oversight and supervision in the Bank of Russia head office to boost the efficiency of these activities;

- determining requirements for risk management and PS risk analysis methods, PS continuity, SFPS indicators, their calculation and benchmarks; and establishing requirements to PS incident data, their collection and assessment of incidents' effect on the SFPS;

- revising the procedure for making and returning security deposits by PS operators other than nationally important PSs;

- advising on the procedure for estimating the adequacy of liquid net assets by IPS operators; and

- advising PSOs on collaboration with settlement centres.

For the list of the main NPS-related federal laws and Bank of Russia regulations issued in 2016–2018, refer to Appendix 2.

1.4. International cooperation in NPS oversight

In conformity with its authorities determined by the national law (Article 37 of the NPS Law) and guided by international regulations (in particular, CPMI documents), in 2016–2018, the Bank of Russia continued international cooperation in NPS oversight with central banks and other foreign NPS oversight (supervision) authorities, including on the basis of the memorandums (MoU).

Currently, given the value of cross-border funds transfers between Russia and foreign countries, the Bank of Russia is focusing on developing cooperation in PS oversight with CIS member-states, including the member-states of the Eurasian Economic Union (EAEU): Armenia, Belarus, Kazakhstan, and Kyrgyzstan.

In 2017, the total value of cross-border remittances via PSs and the Russian Post (further referred to as the total value of cross-border remittances) from Russia to CIS member states came in at \$7 million (76% of the total cross-border remittances of key counterparties); at the same time, the total value of cross-border remittances from CIS member-states to Russia stood at \$1.7 million (65% of the total cross-border remittances of key counterparties) (Chart 24).

In 2017, EAEU member-states accounted for \$2.2 million outgoing transfers (32% of the total cross-border remittances of CIS member states) and \$1.2 million incoming transfers (70% of the total cross-border remittances of CIS member states).

Cross-border remittances increased in 2017 vs 2016 as follows (Chart 25):

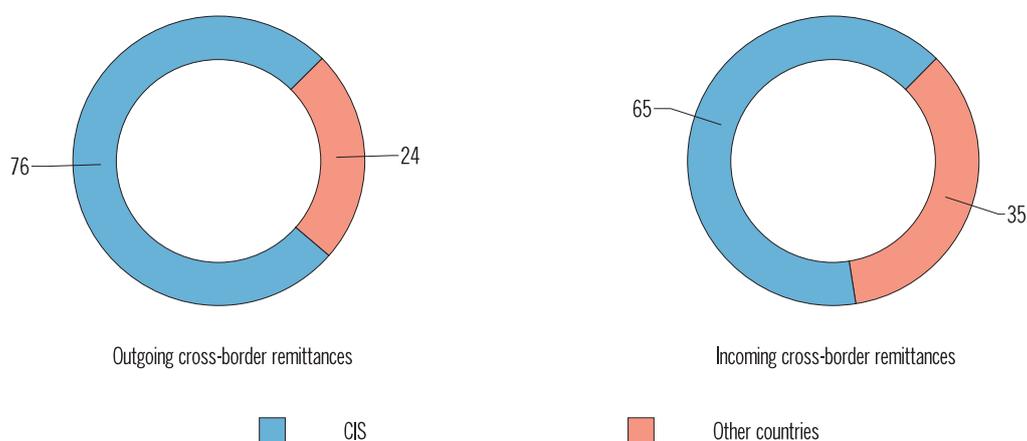
- transfers from Russia to EAEU member states – 27%,
- transfers from EAEU member states to Russia – 30%.

Cross-border remittances in EAEU member-states are facilitated by PSs whose operators are included by the Bank of Russia in the PSO Register (e.g., KoronaPay, Contact, and BEST), as well as funds transfer systems whose opera-

³² For details, refer to Subsection 1.2.1.1 Payment systems' eligibility for importance criteria (systemic, social and national importance).

CROSS-BORDER REMITTANCES VIA PSS AND THE RUSSIAN POST BY DESTINATION, BY VALUE (%)

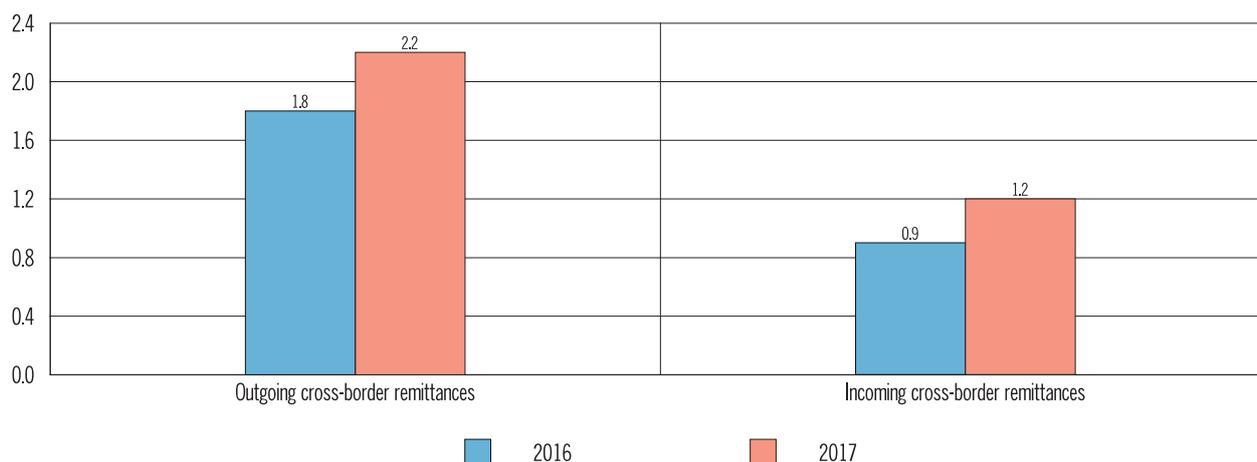
Chart 24



Source: official statistics posted on the Bank of Russia website (www.cbr.ru) (based on cross-border remittances reports of credit institutions and the Russian Post).

VALUE OF CROSS-BORDER REMITTANCES VIA PAYMENT SYSTEMS AND RUSSIAN POST BETWEEN RUSSIA AND EAEU MEMBER-STATES, MILLION US DOLLARS

Chart 25



Source: official statistics posted on the Bank of Russia website (www.cbr.ru) (based on cross-border remittances reports of credit institutions and the Russian Post).

tors are registered in other EAEU countries (e.g., Converse Transfer, TelCell, and Faster), and international MTOs (e.g., Money Gram, and Ria Money Transfer).

To elaborate compatible approaches to organisation and functioning of these systems and their oversight in EAEU member-states, the Bank of Russia concluded bilateral agreements with central (national) banks of EAEU member-states with regard to PS supervision/oversight (further referred to as the Agreements). Under these Agreements, the parties exchange statistics, information on regulation policies, and conditions of PS functioning in these countries.

In 2016–2017, the Bank of Russia made efforts to build up cooperation under the Memorandum³³ Between Central (National) Banks of EurAsEC Member States³⁴ on the Recommendations for Credit Institutions Performing Cross-Border Retail Funds Transfers Without a Bank Account to

³³ The MoU was concluded on 18 October 2013 at the 29th meeting of the Council of Governors of the Central (National) Banks of the Eurasian Economic Community (EurAsEC) Member States. The document is posted on the Bank of Russia website (<http://www.cbr.ru/content/document/file/16162/memorandum.pdf>).

³⁴ Eurasian Economic Community (EurAsEC) was terminated following the launch of Eurasian Economic Union (EAEU), a new organisation aimed at economic integration.

Promote Transparency of the Funds Transfer Market and Customer Protection (the Memorandum).

The recommendations concern the implementation by credit institutions of the first of the five General Principles for International Remittance Services³⁵ worked out and released by the CPMI.

As part of its international engagement, the Bank of Russia also cooperates with international organisations and associations (e.g., the CPMI),³⁶ and other central banks (e.g., within the SWIFT Oversight Forum).

Box 1. MTO survey for compliance with the Recommendations of the Memorandum

In 2017, as part of its NPS oversight and MoU implementation, the Bank of Russia surveyed MTOs about their practices of informing their retail customers (the customers) about the conditions and procedure of cross-border remittances services without a bank account.

Participating in the survey were 24 MTOs operating in the remittance market and accounting for the bulk of transactions and the largest total value of cross-border remittances in 2017 H1.

The MoU Recommendations-based questionnaire contained questions about the information MTOs communicate to their customers when providing remittance services, timely updates of the customer information, types of customer communications, and confirmation of customer awareness of this information.

The survey revealed that Russian MTOs fully complied with the Recommendations (82% of positive replies) and timely updated customer information (100% of positive replies).

The most widespread (32%) types of customer communications listed in the questionnaire are booklets, verbal information, and mass media. 100% of the polled MTOs noted customers' signature on the respective remittance document (request, order) as confirmation of customer awareness of this information.

Given the survey results and the agreement between the parties to the MoU to enable the application of these recommendations by credit institutions providing remittance services, the Bank of Russia plans to bolster the quality of MTO customer services by means of raising customer awareness of the remittance services scope and cost and the associated risks.

³⁵ For Russian translation of the General Principles for International Remittance Services refer to the Bank of Russia's publication 'Payment and Settlement Systems', issue 10, August 2008 (<http://www.cbr.ru/Queries/UniDbQuery/File/48362?fileId=83>).

³⁶ For information about the CPMI, refer to Box 2 hereof.

2. Oversight of Important Payment Systems in 2016–2018

2.1. Results of the Bank of Russia's oversight of important payment systems

In accordance with Part 2, Article 35 of the NPS Law, the Bank of Russia focuses on the oversight over IPSs, which have the highest priority and includes monitoring, assessment and inducing changes.

The Bank of Russia assesses IPSs and determines their compliance with the PFMI¹ international standard, and initiates changes in IPS functioning by means of communication of the assessment materials and results to the organisation's management, as well as by means of development of plans to implement the suggested changes in cooperation with IPS operators.

Box 2. CPMI activity

The CPMI is represented by central banks of 26 countries, including Russia (CPMI member since 2009). In 2018, representatives of central banks of Spain, Indonesia and Argentina joined the CPMI.

The CPMI promotes the safety and efficiency of payment, clearing, settlement and related arrangements, thereby supporting financial stability and the wider economy of the CPMI members.

To that end, the CPMI analyses FMI operations, elaborates global standards and recommendations, and monitors their implementation; furthermore, it serves as an experience-sharing platform for CPMI members.

In 2016–2018, Bank of Russia experts helped work out and publish the following payment and settlement-related documents:¹

- Reducing the risk of wholesale payments fraud related to endpoint security (May 2018);
- Central bank digital currencies (March 2018);
- Cross-border retail payments (February 2018);
- Distributed ledger technology in payment, clearing and settlement (February 2017);
- Fast payments - Enhancing the speed and availability of retail payments (November 2016);
- Correspondent banking (July 2016);
- Payment aspects of financial inclusion (April 2016).

For Russian translation of selected CPMI reports refer to the Bank of Russia website, 'Payment and Settlement Systems'.²

The 2018–2019 CPMI priorities are as follows:

- analysing opportunities and challenges associated with the development and spread of financial innovations;
- investigating wholesale PS cybersecurity issues;
- completing the efforts to enhance stability, recover and rehabilitate central counterparties;
- accelerating the introduction of international standards (in particular, the PFMI); and
- increasing volumes of collectable information, enhancing quality of analysis and surveys of payment and clearing systems.

¹ <https://www.bis.org/list/cpmi/index.htm?m=3%7C16%7C570>.

² <http://www.cbr.ru/publ/prs/>.

¹ Bank of Russia Letters No. 59-T, dated 14 April 2014, 'On Compliance with Bank of Russia Recommendations' and No. 94-T, dated 29 June 2012, 'On the Document of the Committee on Payment and Settlement Systems 'Principles for Financial Market Infrastructures'.

PRINCIPLES FOR FMIs AND THEIR APPLICABILITY TO SYSTEMICALLY
AND SOCIALLY IMPORTANT PSS

Table 5

No.	Principle	Systemically important PS	Socially important PS
1	Principle 1: Legal basis	⊕	⊕
2	Principle 2: Governance	⊕	⊕
3	Principle 3: Framework for the comprehensive management of risks	⊕	⊕
4	Principle 4: Credit risk	⊕	⊗
5	Principle 5: Collateral	⊕	⊗
6	Principle 7: Liquidity risk	⊕	⊗
7	Principle 8: Settlement finality	⊕	⊕
8	Principle 9: Money settlements	⊕	⊕
9	Principle 12: Exchange-of-value settlement systems	⊕	⊗
10	Principle 13: Participant-default rules and procedures	⊕	⊕
11	Principle 15: General business risk	⊕	⊕
12	Principle 16: Custody and investment risk	⊕	⊗
13	Principle 17: Operational risk	⊕	⊕
14	Principle 18: Access and participation requirements	⊕	⊕
15	Principle 19: Tiered participation arrangements	⊕	⊕
16	Principle 21: Efficiency and effectiveness	⊕	⊕
17	Principle 22: Communication procedures and standards	⊕	⊕
18	Principle 23: Disclosure of rules, key procedures, and market data	⊕	⊕

⊕ – Applicable.

⊗ – Not applicable.

In 2016, the World Bank mission completed Russian Financial Sector Assessment Programme (FSAP)² with the Financial Market Infrastructure and Central Counterparty module. The mission noted the successful implementation of the PFMI in laws and Bank of Russia regulations with regard to all FMIs operating in Russia. The development of Russian FMIs, including systemically IPSs, was highly rated. In the follow-up to the FSAP, the Bank of Russia elaborated an action plan aimed at the implementation of FMI-related recommendations, including the NPS-related issues. The Bank of Russia implemented the plan in 2016–2018.

The Guidelines for the Development of the Russian Financial Market in 2016–2018 (the Guidelines)³ suggest that the Bank of Russia continues

implementation of the PFMI international standard in the Russian jurisdiction, and IPS assessment for compliance with this standard with the use of the associated methodology.

The first cycle of IPS assessment⁴ was completed in 2016 Q1.⁵ After that, IPS operators took measures to change IPS operations approved by IPS operators and agreed with the Bank of Russia. In 2016–2018, the Bank of Russia continued to control the implementation of measures launched in the follow-up to the first cycle of IPS assessment.

As part of the second assessment cycle, launched in 2017, the Bank of Russia assesses systemically important PSs for compliance with the 18 Principles for FMIs using the methodology described in the Appendix to Bank of Russia

² <http://www.cbr.ru/press/event/?id=609>.

³ http://www.cbr.ru/Content/Document/File/44188/onfr_2016-18.pdf.

⁴ *National payment system oversight results 2012–2014* (<http://www.cbr.ru/publ/Vestnik/ves141020097.pdf>).

⁵ *In the course of the first cycle, two systemically IPSs and five socially important PSs were assessed.*

Order No. OD-607, and socially important PSs for compliance with 13 Principles for FMIs using the methodology described in Bank of Russia Order No. OD-3118 (see Table 5).

In 2017–2018, systemically important PSs BRPS and NSD PS and socially important PS Korona-Pay were reassessed. As this publication is being prepared, Sberbank, MasterCard and Visa PSs are undergoing reassessments.

2.2. Overview of the payment systems assessed by the Bank of Russia for compliance with the PFMI

Bank of Russia Payment System

The BRPS executes a sizeable share of funds transfers in the NPS, thus, facilitating the implementation of a number of Bank of Russia policies established by Russian law, including monetary and budgetary policy. The BRPS is systemically and nationally important in accordance with Article 22 of the NPS Law.⁶

In 2017, the BRPS executed more than 1.5 billion funds transfers worth ₺1,440.9 trillion,⁷ ex-

ceeding the 2016 figures by 6.5% and 7.5% respectively. Charts 26 and 27 illustrate the structure of funds transfers in the BRPS by constituent territory and their dynamics.

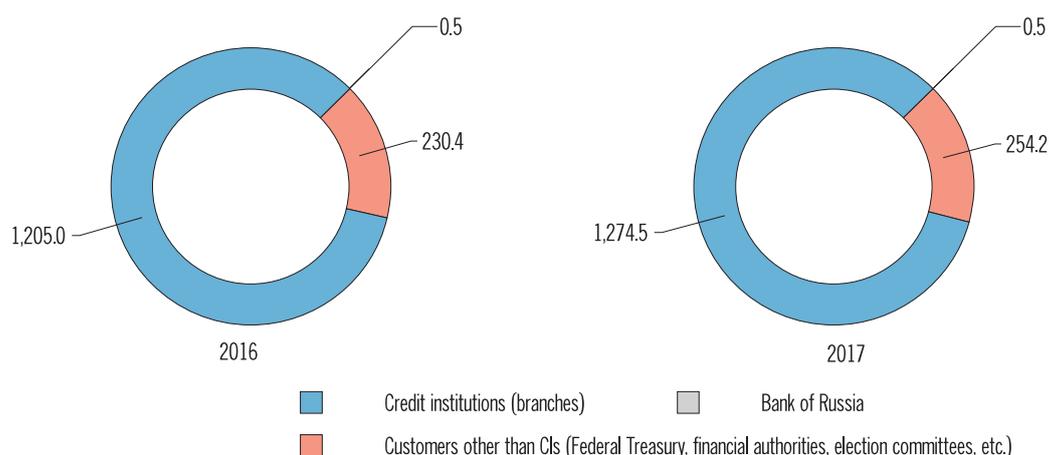
As many as 35.3 thousand funds transfers worth ₺2.8 trillion were carried out in 2017 (10.6% growth in terms of quantity and 33.1% increase in terms of value) to complete domestic payment card settlements.⁸

In the total number and value of funds transfers made via the BRPS in 2017, transfers through the interregional settlement system accounted for the largest share of funds transfers in quantity terms (55.4%), and transfers via the Banking Electronic Speedy Payment system (BESP) accounted for the bulk of funds transfers in value terms (80.2%).

As compared with 2016 data, funds transfers were redistributed between speedy and non-speedy funds transfer services following the introduction on 1 January 2017 of an obligation to execute large payments (over ₺100 million) via speedy transfer services only. Charts 28 and 29 show the structure and dynamics of transfers made via the BRPS (broken down by settlement system).

BRPS FUNDS TRANSFERS, NUMBER
(MILLION UNITS)

Chart 26



⁶ Here and elsewhere, for IPS clearing and settlement procedures refer to the national payment system oversight results 2014–2016 // Bank of Russia Bulletin 17.10.2016. No. 91. URL: <http://www.cbr.ru/publ/Vestnik/ves161017091.pdf>.

⁷ Structure of funds transfers carried out via the BRPS (<http://www.cbr.ru/statistics/?PrtlId=psrf>).

⁸ Payment card settlements are made on a net basis.

BRPS FUNDS TRANSFERS, VALUE
(TRILLION RUBLES)

Chart 27

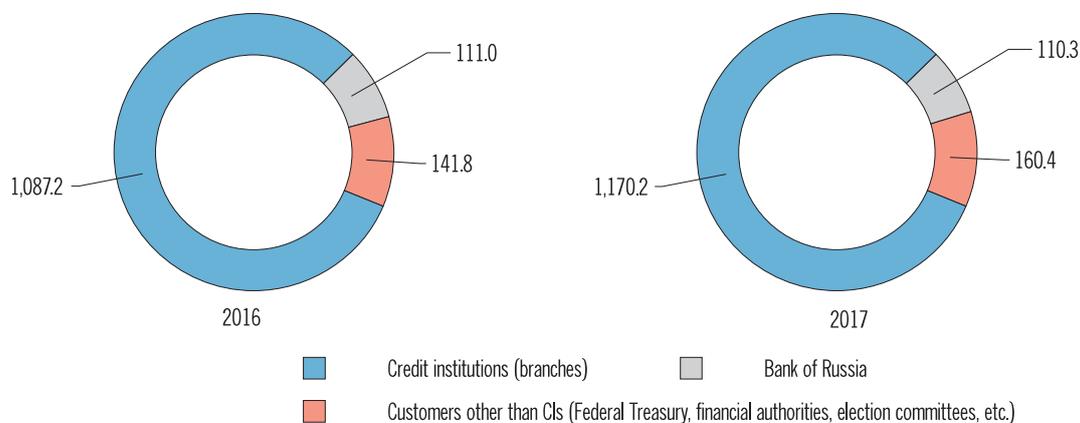
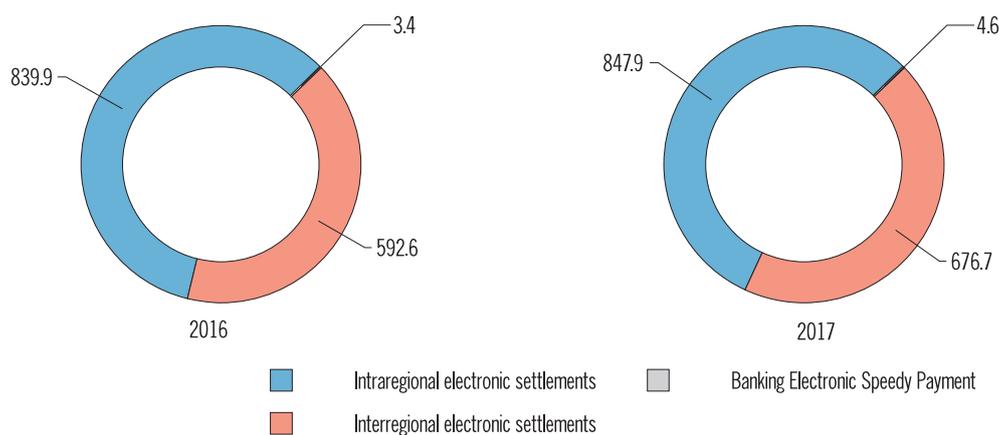
BRPS FUNDS TRANSFERS BY SETTLEMENT SYSTEM
(NUMBER, MILLION UNITS)

Chart 28



After the previous assessment (2016–2018 H1), considerable changes were introduced in the BRPS; they included:

- 1) extending the BRPS operation hours (including the operation hours of BESP and regional components);
- 2) concentrating large payments in BESP;
- 3) centralising customer access to BRPS services;⁹
- 4) minimising the use of paper-based procedures; and
- 5) launching the Bank of Russia's function of the central payment clearing counterparty,

and the settlement centre of Mir PS and international PSs in intraday settlements on domestic payment card transfers.

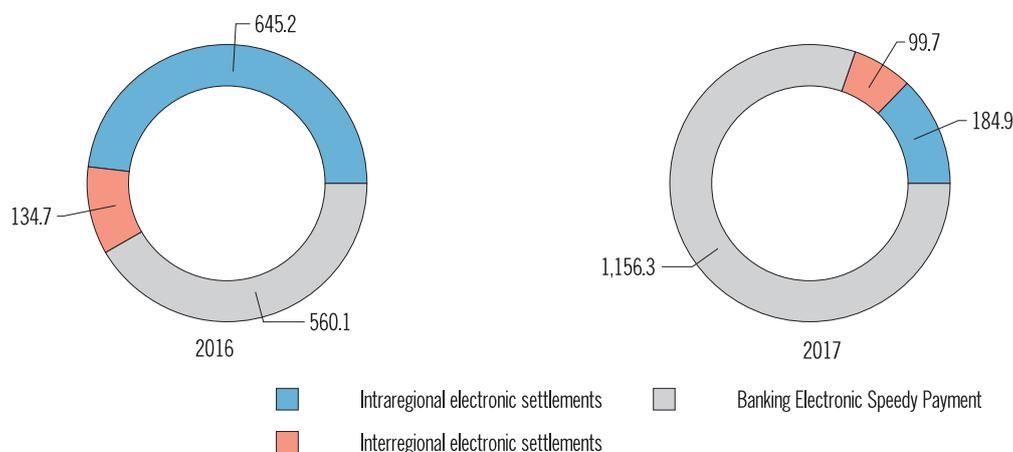
The Bank of Russia enabled credit institutions – financial market participants to effect funds settlements under securities transactions in the BRPS (BESP) using funds in their correspondent accounts with the Bank of Russia on the delivery versus payment basis, DVP-1 (without netting) in real time.

Bank of Russia Regulation No. 595-P, dated 6 July 2017, 'On the Bank of Russia Payment System' has been effective since 2 July 2018; it establishes BRPS rules of new payment services, including participation criteria, cooperation be-

⁹ In March 2018, information processing of all BRPS regional components was centralised.

BRPS FUNDS TRANSFERS BY SETTLEMENT SYSTEM, VALUE
(TRILLION RUBLES)

Chart 29



tween the Bank of Russia and BRPS participants, the procedure for payment clearing and settlement, and the BRPS operation hours. Starting from the effective date of the regulation, the BRPS was switched to a new centralised platform operating within the expanded operation hours, Bank of Russia customers received equal access to speedy (real time) and non-speedy (every 30 minutes) transfers across Russia in 11 time zones, conditions were created to effect ruble settlements arrangements financial market transactions through accounts with the Bank of Russia, and Bank of Russia customers received new liquidity management tools.

The analysis of BRPS functioning is held on a regular basis (quarterly and annually) and includes the analysis of participants' use of effective settlement mechanisms, services, interfaces, changes in the composition of participants as compared with the number and value of their funds transfers. The quantification of BRPS accessibility is carried out using the developed methods. In 2016-2017, the average monthly ratios of BRPS accessibility ranged between 99.92% and 100%.

NSD Payment System

The NSD PS executes funds transfers under transactions concluded on organised trading facilities and in the OTC market, as well as open market operations and credit institution refinancing. The NSD PS is systemically and nationally important in accordance with Article 22 of the NPS Law.

In 2017, the NSD PS executed 677.4 thousand funds transfers in the Russian currency worth ₺188.7 trillion, or 17.5% up from the 2016 figure. As in 2016, prevailing in the structure of NSD PS funds transfers were transfers under transactions concluded on organised trading facilities (71.1%). OTC funds transfers accounted for 18.9%. Chart 30 shows the value of NSD PS funds transfers.

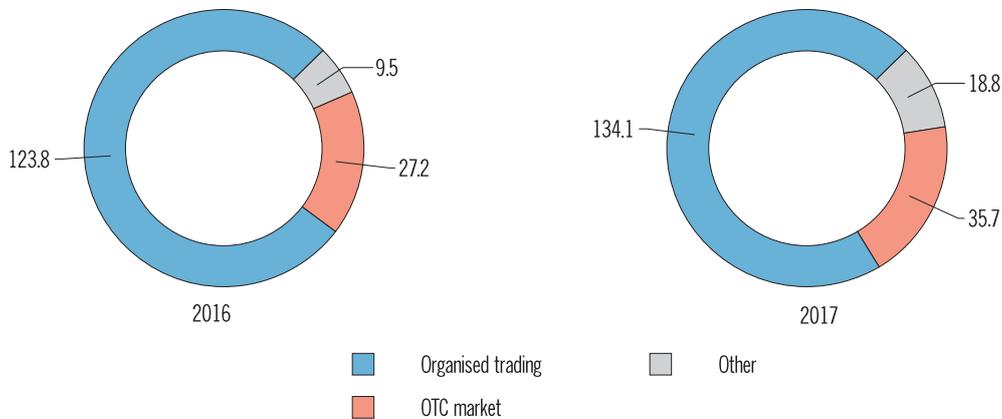
After the previous assessment, NSD PS products and services were expanded with conditional funds transfers, including:

- DVP settlements (delivery versus payment) with the use of correspondent accounts with the Bank of Russia; and
- PVP funds transfers (payment versus payment).
- In the course of this period, the NSD PS made the following efforts to improve and upgrade its risk management system:
 - took measures scheduled for 2017 in accordance with the Strategy for Risk Management Development 2020;
 - updated the plan for NSD financial stability recovery (self-resolution);
 - successfully completed ISAE3402 type II operational audit;
 - developed a failure-proof IT infrastructure; and
 - held regular testing of business continuity and recovery arrangements.

In the course of this period, certain NSD internal documents were amended, including the

NSD PS FUNDS TRANSFERS, VALUE
(TRILLION RUBLES)

Chart 30



documents related to risk management and business continuity.

KoronaPay Payment System

The bulk of funds transfers made via KoronaPay PS, a socially important PS, are transfers without a bank account, whereas payment card transfers only account for a modest share (Chart 31). KoronaPay PS meets the criterion of a socially important PS by the share of funds transfers without a bank account carried out within the PS in the course of a calendar year (Clause 3, Part 2, Article 22 of the NPS Law).

After the previous assessment, KoronaPay PS implemented the following measures as part of its

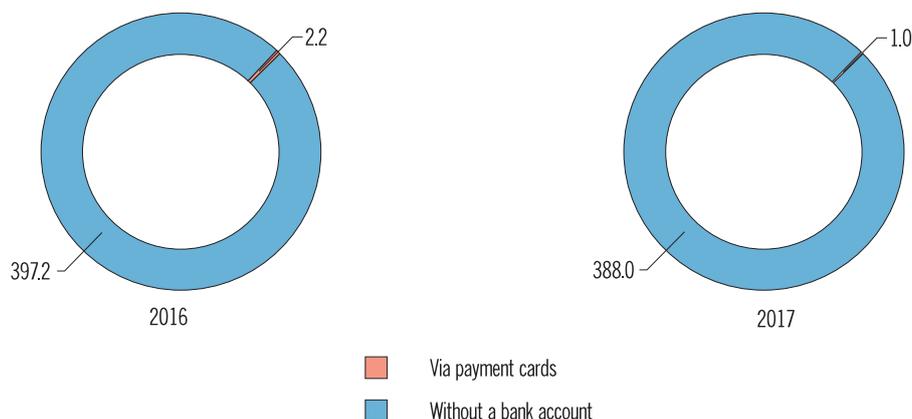
risk management fine-tuning in accordance with the Bank of Russia’s recommendations:

- the development and introduction of operational services continuity guaranteed level;
- the introduction of procedures for assessment of the effect of the KoronaPay PS operator’s financial standing on the SFPS, and factoring in the assessment data in risk management; and the introduction and annual conduct of liquid net asset adequacy assessment.

In the course of this period, KoronaPay PS stress-testing procedure was fine-tuned, and plans were elaborated and approved for KoronaPay PS operation recovery and orderly wind-down, and for raising additional capital by the Korona-

KORONAPAY PS FUNDS TRANSFERS, VALUE
(BILLION RUBLES)

Chart 31



Pay PS operator should its capital decrease to (below) the minimum required level.

The KoronaPay PS operator regularly monitors laws of countries of operation of non-resident participants and holds a due diligence checks of laws associated with KoronaPay PS operations.

2.3. Overview of important payment systems and the results of their assessment for compliance with the PFMI

The results of reassessments of three IPSs completed by the Bank of Russia confirmed high compliance of IPSs functioning in the Russian ju-

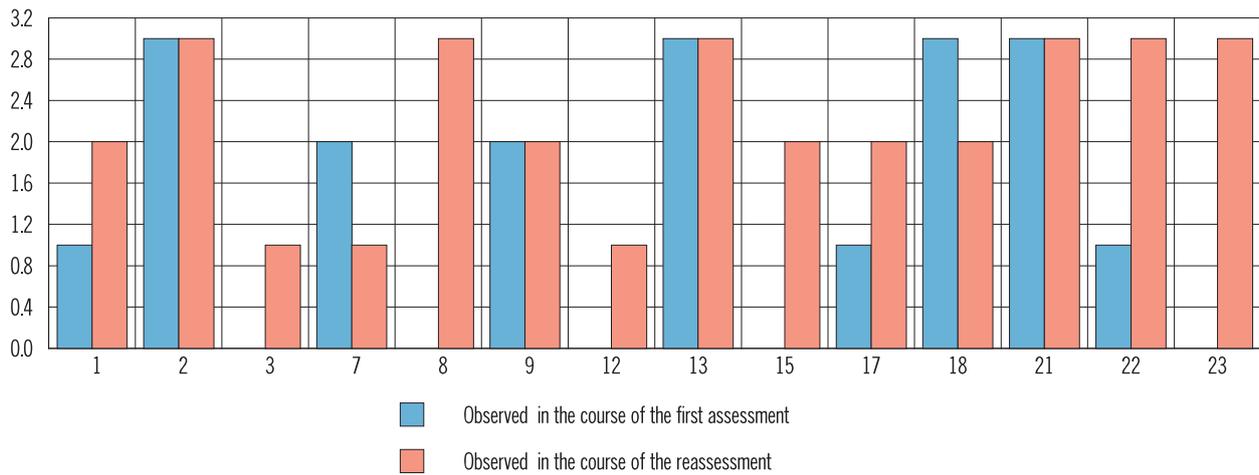
risdiction with the PFMI, and ratings within certain principles of the reassessed IPSs were revised to the highest possible level.

The assessment methodology described in the Appendix to Bank of Russia Order No. OD-607 provides for a rating system based on the importance of the problems revealed in terms of the urgency of their settlement (observed, broadly observed, partially observed, not observed, not applicable). Charts 32 and 33 provide information about the principles rated as ‘observed’ and the principles rated as ‘broadly observed’ in the reassessment of IPSs compared with the first assessment of the three assessed IPSs.

Chart 32 shows that a considerable improvement (within certain principles to the highest rat-

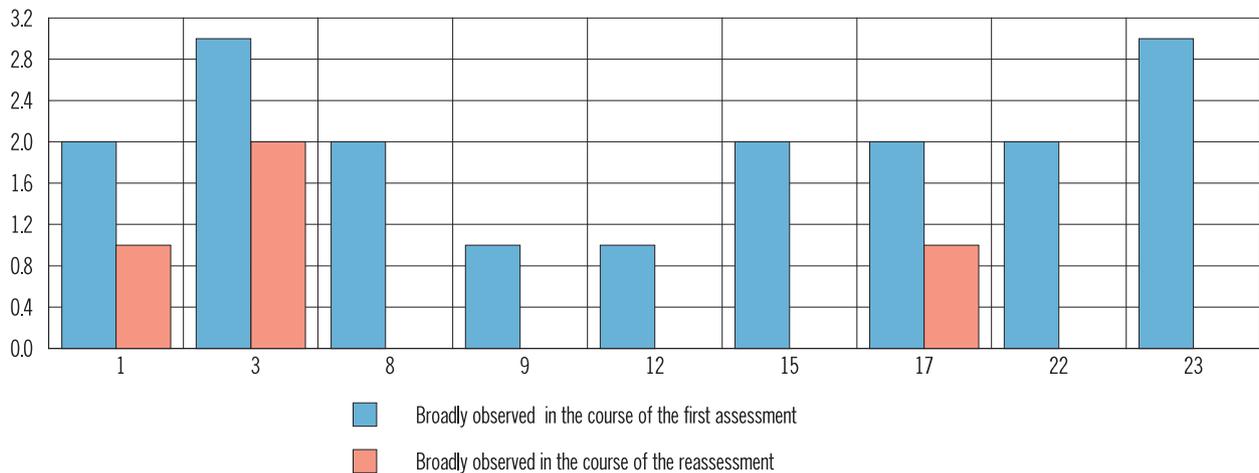
PRINCIPLES IPSS WERE MOST OBSERVED WITH PURSUANT TO THE FIRST ASSESSMENT AND REASSESSMENT (UNITS)

Chart 32



PRINCIPLES IPSS WERE BROADLY OBSERVED WITH PURSUANT TO THE FIRST ASSESSMENT AND REASSESSMENT (UNITS)

Chart 33



ing) of compliance was registered in Principles 8, 15, 22 and 23 as the missing information was registered in IPS internal documents and disclosed on their websites. The highest compliance rating was confirmed within Principles 2, 13 and 21 regarding the governance, participant default management, and efficiency and effectiveness maintenance. Positive developments were registered within Principles 1, 3 and 17 associated with IPS risk management. At the same time, in the follow-up to the reassessments, IPS operators supplemented their action plans with the efforts to improve compliance with these principles, among other things. This suggests that they are essential to introduction in IPSs.

The reassessment of some IPSs excluded Principles 7 and 18, as certain IPSs didn't introduce any changes as regards the provisions of these principles. Therefore, the chart demonstrates a slight decline of their ratings, which is only explained by the fact that their reassessment was not factored in.

Overall, Charts 32 and 33 show that in the course of reassessments, the IPSs improved their functions within Principles 8, 9, 12, 15, 22 and 23, enabling the upward revision of their ratings to 'observed'.

2.4. Assessment results of PMFI implementation in IPSs

2.4.1. General organisation and risk management (Principles 1–5, 7, 15–17)

Principle 1: Legal basis

In accordance with Principle 1, IPS operators should have a well-founded legal basis for each material aspect of IPS activities in all relevant jurisdictions. In the second cycle, this principle applied to all the assessed IPSs, as the Bank of Russia had provided recommendations as regards this principle in the follow-up to the previous assessment, and IPS operators had included the related measures in their action plans worked out in the follow-up to the assessment.

Russian law, Bank of Russia regulations, PS rules, and agreements (including contracts with participants and PISPs), as well as internal doc-

uments of PS operators and PISPs make up the legal basis of PSs' functioning in Russia. The legal basis of PSs executing cross-border funds transfers also includes the law of the country of its operations.

PS rules disclose considerable aspects of IPS operations, which are also stipulated in:

- the NPS Law (Part 1 of Article 20 and Part 1 of Article 24);
- Bank of Russia Ordinance No. 2832-U, dated 9 June 2012, 'On the Specifics of the Rules of Payment Systems Executing Funds Transfers under Transactions Conducted on Organised Trading Facilities'; and
- Bank of Russia Ordinance No. 2836-U, dated 19 June 2012, 'On Bank of Russia Requirements for Important Payment Systems'.

PS rules agreed with PS participants and approved by a PS operator should be submitted to the Bank of Russia for a check for compliance with the NPS Law and the related Bank of Russia regulations, and, consequently, posted on the PS operator's website.

The effective procedures provide for a transparent legal basis of IPS activity for competent authorities and participants, and guarantee a high degree of certainty that PS rules cannot be voided or applied retroactively.

For instance, the high degree of certainty of the legal basis of the BRPS is guaranteed by the fact that the BRPS rules are recorded in Bank of Russia regulations.¹⁰ The BRPS rules establish criteria for the participation, suspension and termination of participation in the BRPS, the procedure for funds transfers, the procedure for payment clearing and settlement, operation hours, the procedure for service payments, risk management, and other aspects of BRPS operations in compliance with Russian law. The issue and appropriate state registration by the Ministry of Justice¹¹ of regulations (BRPS rules) mitigates the legal risk in the BRPS.

To manage legal risk, IPS operators take, among other things, the following measures in accordance with PS rules:

¹⁰ Posted on the Bank of Russia website (http://www.cbr.ru/PSystem/system_p/rules/).

¹¹ Posted on the Bank of Russia website (http://www.cbr.ru/PSystem/system_p/rules/).

- the monitoring of amendments to Russian laws and laws of countries of PS operation (for cross-border IPSs) to promote compliance of PS rules, internal documents and agreements with Russian laws and laws of other countries of operation;
- the analysis of draft PS rules, internal documents and agreements by PS operators, on the results of which final documents are agreed upon and approved;
- ensuring mandatory compliance by all employees of the respective IPS entity with internal documents; and
- the analysis of questions and claims IPS entities receive in connection with their operations in the PS, and their expert review.

The results of reassessment confirmed that IPSs comply with this principle. Recommendations associated with this principle largely concerned the improvement of the internal legal base aimed at its updating in light of the latest amendments to Russian laws, and the need to fine-tune risk classification and revise legal risk factors associated with IPS operations.

Principle 2: Governance

In accordance with Principle 2 defining IPS general organisation, IPS operators should have governance arrangements that are clear and transparent, ensure functioning continuity and effectiveness of the respective IPS, and the delivery on the strategic goals and objectives.

Key elements of effective governance arrangements are clear and direct lines of IPS functioning. Almost every PS is focused on a profit. However, the objectives for building up a PS may vary. At the same time, development goals should be aimed not only at meeting PS customers' rising demand for the quality of PS services and profit, but also effective risk management in the PS. Such goals are usually determined in strategic documents of IPS operators and aimed at efficiency, operational reliability, and services continuity.

Governance arrangements should be focused on delivery on the respective objectives. This is enabled by, among other things, the organisational structure of an IPS operator where responsibilities and accountability of structural divisions (employees) are clearly determined. This suggests, among other things, that structural divi-

sions (employees) responsible for risk management and functioning continuity of IPS should be determined, and governing bodies should include members with appropriate experience, knowledge and skills.

The governance arrangements, responsibilities and accountability of the governing bodies of IPS operators and PISPs are documented in PS rules and internal documents of the respective entities (charter, regulations, job descriptions, etc.). In the case of the BRPS, responsibilities and accountability of the Bank of Russia management, Bank of Russia Board of Directors, and the National Financial Board are enshrined in federal laws, and BRPS operational management mechanisms are documented in Bank of Russia regulations publicly available to all stakeholders. Roles and responsibilities as regards the BRPS management are established by Bank of Russia orders, regulations on Bank of Russia divisions, and other Bank of Russia documents.

The results of assessment of IPS governance arrangements confirm that irrespective of the preferred risk management model¹² IPSs apply a comprehensive approach to risk identification, assessment, mitigation and control when IPS operators perform their tasks. IPS risks are managed at all levels, the key role in building up and developing risk management systems is played by the relevant risk management functions, which coordinate risk management at all stages and develop the relevant methodology.

The process of improvement of IPS functioning provides for an active involvement of all stakeholders. For instance, in the BRPS, Bank of Russia representatives acting as a part of dedicated working bodies (committees and working groups) inform the banking community and the public about the amendments and addenda to Bank of Russia regulations, and the decisions focused on technical updates to the BRPS. This information is posted on the Bank of Russia website. Operators of other IPSs take the participants' interests into account by means of consideration of their suggestions and remarks when revising PS rules, inclusion of participants' representatives in collegial bodies, and feedback mechanisms.

¹² Part 2, Article 28 of the NPS Law provides for three risk management models.

Since the previous assessment, IPS operators finalized internal documents as regards the determination of responsibilities and accountability of structural divisions (employees) in IPS management, formalised goals and objectives of IPS functioning, and enhanced accessibility of IPS governance-related information.

Principle 3: Framework for the comprehensive management of risks

In accordance with Principle 3, which requires that IPSs should have a sound risk management framework for comprehensive risk management, IPS operators should take an integrated and comprehensive view of their risks, including the risks they are exposed to and pose to their participants, their customers and other entities.

Given the effect IPSs have on financial stability and consumer confidence in non-cash settlements, it is essential that such IPSs build up an effective risk management framework.

IPS operators disclose their approaches to risk management in PS rules which determine goals and objectives of risk management, organisational model, risk profiles, measures and methods, as well as monitoring and control procedures and tools. Individual methodological clarifications are also disclosed in internal documents.

Most often, IPS operators outline the following IPS operation-related risks in their PS rules: legal risk, operational risk, and settlement risk (credit and liquidity risk). Also, IPSs determine systemic risk and other risks (country risk, general business risk, reputational risk, strategic risk, etc.). Special focus is made on the risk of a SFPS failure.

The IPS risk management framework includes measures provided for in the NPS Law. Risk analysis methods elaborated (fine-tuned) in the follow-up to the first assessment include the elements documented in Bank of Russia Regulation No. 379-P, dated 31 May 2012, 'On the Smooth Functioning of Payment Systems and the Analysis of Payment Systems Risks'. Currently, PS operators are preparing to implement measures provided for by Bank of Russia Regulation No. 607-P effective from 30 December 2018.

To build up a risk management framework an IPS operator may have to attract considerable additional resources associated with not only organisational aspects of building up a risk man-

agement framework in the IPS, but also the development (fine-tuning) of risk management-related information and analytical systems, and a related methodological base.

In the course of the assessment, IPS operators and PISPs were advised to develop PS rules and documents governing the PS operations following on from international, national and sectoral standards, which include, among other things, Russian standards GOST R ISO/IEC 31000-2010 Risk Management. Principles and Guidelines; GOST R 53647.1-2009 Business Continuity Management. Part 1. Practical Guidance; and GOST R ISO 9000-2015 National Standard of the Russian Federation. Quality Management Systems. Fundamentals and Vocabulary.

IPS operators put into practice the Bank of Russia's recommendations as regards the risk management framework given in the course of the previous assessment; they fine-tuned (or worked out) the following documents:

- internal documents containing requirements for IPS risk management framework;
- risk assessment methods and the procedure for their application;
- documents determining the procedure for updating risk management framework (requirements for updating procedures, update frequency, methods for determining fluctuations of risk intensity, changes in economic and business environment), and the procedure for assessing its effectiveness; and
- documents containing the plan for recovery and (or) orderly wind-down of activity of an IPS operator, and plans for raising additional capital.

Certain IPS operators also worked out documents providing for stress-testing procedures based on different scenarios, and describing considerable changes in market conditions or critical events affecting SFPS and risk factor estimations.

During the period under review, IPS operators and other IPS entities built up internal risk-based culture and implemented Bank of Russia recommendations as regards the formalisation of risk management framework in IPSs.

The Bank of Russia advised on fine-tuning PS rules and supplementing them with references to specific internal documents governing risk management in cases when PS rules fail to provide

Box 3. Key PS risks¹

PS legal risk is the risk of provision of payment infrastructure services incompliant with services requirements due to PS entities' non-compliance with Russian laws, PS rules, agreements between PS entities, PSO and PISP documents, or due to legal conflicts and (or) legal uncertainties in Russian laws, Bank of Russia regulations, PS rules and agreements between PS entities, and as a result of PISPs' and PS participants' belonging to jurisdictions of different countries.

PS operational risk is the risk that a PS provides payment infrastructure services incompliant with the service provision requirements because of failures, breakdowns and disruptions in information and technological systems of PS entities, shortcomings in the organisation and implementation of technological and management processes, errors and unlawful actions of PS entities' employees, or following the events the reasons of which are not connected with the activity of PS entities, including emergency situations, errors and unlawful actions of third parties.

PS credit risk is the risk that a central payment clearing counterparty or a PS settlement centre provides payment infrastructure services incompliant with the service provision requirements following PS participants' failure to deliver on their contractual obligations to these entities in due course or in future.

PS liquidity risk is the risk that a PS provides payment infrastructure services incompliant with the service provision requirements because a central payment clearing counterparty and (or) PS participants lack monetary funds sufficient to deliver on their obligations to other PS entities in due course.

PS general business risk is the risk that a PS provides payment infrastructure services incompliant with the service provision requirements following a deterioration in financial standing of a PSO and (or) PISP that is not associated with materialisation of PS credit and liquidity risk.

¹ Bank of Russia Regulation No. 607-P (Appendix 2).

a comprehensive overview of risk management procedures and events.

Economic and legal aspects of IPS functioning are often inherent to other activities of IPS operators; therefore, some risks inherent to an

IPS operator as an entity influence IPS operations in full or in part. This should be taken into account when building up an IPS risk management framework. Risk-related documents are often focused on managing risks of an IPS oper-

Box 4. Sample list of events for developing scenarios for stress-testing in IPSs

1. Non-performance by one or more major participants of a PS facilitating settlements on a net basis.
2. Suspension (termination) of participation in the PS by several major PS participants (in terms of value and number of funds transfers).
3. Suspension (termination) of participation in the PS by a direct participant with which indirect participants have bank accounts, in cases where PS rules provide for indirect participation.
4. A sharp increase (according to a PSO's estimates) in the number of funds transfer orders from PS participants to the level exceeding the possibilities of PISP hardware and software (for both each PISP and all PISPs together).
5. Registration of an incident by one or several PISPs on the back of suspended payment infrastructure services provision.
6. Breaches of business continuity of essential service providers.
7. Loss of financial stability by a PSO or a PISP as their expenses exceed income and available funds cannot cover operating expenses.
8. A PSO or a PISP estimates that the change in the exchange rate of the national currency of the country of transfer sender and (or) receiver is considerable for a PS executing cross-border funds transfers (if a PS executes cross-border funds transfers).
9. A foreign state imposes a ban against a PS whose operators are registered with the Bank of Russia, including a ban on receiving funds transfers from Russia, a ban to use PISPs located in Russia, and a ban to participate in the PS (if the PS executes cross-border funds transfers).
10. Deterioration of a PSO's and PISP's business reputation.

ator as a whole, as an entity acting not only as an IPS operator, but also performing other activities (e.g., a credit institution). In view of this, the Bank of Russia recommended IPS operators to focus on risks directly related to IPSs and approaches to their management.

Principle 4: Credit risk / Principle 5: Collateral / Principle 7: Liquidity risk

In accordance with Principles 4, 5 and 7, IPS operators are advised to develop effective mechanisms for IPS settlements and managing the related risks. In the course of the reassessment, Principle 4 ‘Credit risk’ and Principle 5 ‘Collateral’ were not applied to the IPSs under review, while Principle 7 ‘Liquidity risk’ was only assessed for certain IPSs:

- Given the architecture of the BRPS and the fact that the previous BRPS assessment assigned the highest ratings within these principles, these principles were not assessed in relation to BRPS functioning in the course of the period under review.

- The assessment of socially important PSs does not suggest that the assessment report should include proposals about changes in the activity of the entities under review as regards the principles related to financial risks or indirectly connected with them; this is in line with the international practice and recorded in the methodology for assessment of socially important PSs.

The main sources of liquidity risk in most IPSs are insufficiency (lack) of participant’s (participants’) funds for timely and complete delivery on their obligations to other IPS participants, and the concentration of a considerable volume of funds transfer orders in certain moments or periods during the day. Only the BRPS provides for using intraday (overdrafts) and overnight loans over participants’ bank accounts as well as other types of lending to complete settlements.

The sufficiency of funds in bank accounts of senders usually serves as collateral on obligations of IPS participants to transfer funds. Accordingly, in compliance with PS rules, should monetary funds in these accounts prove insufficient, funds transfers are not executed.

In such cases, deferred orders are put in an intraday queue. Should funds be insufficient to

execute such orders, they are queued as they are received. Orders are kept in the intraday queue of deferred payments during the operational day until the account of the participant whose orders have been put in the intraday queue is credited in the amount sufficient to execute the deferred orders or the order is revoked by the sender. After the operational day is closed, deferred orders put in the intraday queue are cancelled.¹³

To minimise liquidity risk in IPSs, queue management procedures are used. Liquidity risk is brought to the minimum when the time lag between the receipt of settlement orders and the settlement transaction on these documents is non-existent (real-time gross settlements). IPSs use operational and analytical tools to identify, assess and monitor their settlement and financial flows.

Since the previous assessment, procedures for direct liquidity risk management in PSs, including the identification of liquidity risk sources in IPSs, have been formalised (previously, IPS operators put more focus on managing liquidity risk of a settlement centre as a credit institution).

At the same time, the Bank of Russia advised IPS operators on stress-testing of liquidity risk in the PS, and improvement of queue management mechanisms.

Principle 15: General business risk

In accordance with Principle 15, IPS operators should identify, monitor and manage their general business risk and hold sufficient liquid net assets funded by equity to cover potential general business losses so that IPS entities can continue operations and services as a going concern if those losses materialise. This principle contains recommendations mostly aimed at ensuring reliability of IPS operator.

The reassessment confirmed that IPS operators had implemented key Bank of Russia recommendations given in the course of the previous assessment;¹⁴ namely IPS operators:

- approved plans for financial stability recovery (self-resolution);
- determined procedures for calculating liquid net assets;

¹³ Except for the orders which the law prescribes to put in the queue of overdue orders.

¹⁴ This principle is not applicable to the BRPS.

- provided evidence that liquid net assets are sufficient to recover or complete critical operations and services should IPS operators suffer losses; and

- analyse on a regular basis the dependence of the SFPS on IPS operators' financial standing.

The issue of Bank of Russia Methodological Recommendations No. 25-MR, dated 9 August 2016, 'On the Application of CPSS-IOSCO Principles for Financial Market Infrastructures for Assessment of Liquid Net Assets Sufficiency' and their introduction to IPS operators' activity increased IPS operators' ratings within this principle.

In the course of the latest assessment, IPS operators received no recommendations as regards Principle 15.

Principle 17: Operational risk

In accordance with Principle 17, IPS operators should identify the plausible sources of operational risk, both internal and external, and mitigate their impact through the use of appropriate systems, policies, procedures and controls. Operational risk is the most significant risk for PSs, especially at the current stage. IPSs should ensure a high degree of security and operational reliability and should have adequate, scalable capacity. Business continuity management should aim for timely recovery of operations and fulfilment of IPS obligations, including in the event of a major disruption.

To monitor operational risk level, IPS operators and other IPS entities establish key risk indicators, IPS functioning indicators and their threshold values, monitor and control timely and appropriate responses to indicator deviations and threshold exceeding.

Main recommendations the Bank of Russia gave to IPS operators in the course of the previous assessment concerned updates for timely recovery of operations and fulfilment obligations in the event of emergency or unexpected developments, aimed at complete and timely recovery of operations in the event of materialisation of possible incidents ranked by scale and impact on the SFPS and the results of their stress-testing with participation of all stakeholders.

To plan scalable capacity and test operational reliability, the assessed IPSs hold comprehen-

sive hardware and software stress-testing at least twice a year.

At the same time, any PS is exposed to operational risk caused by participants (disruption of electronic exchange and participation protocols through their fault) and third parties, e.g., service providers (SWIFT, internet providers, telephone and telegraph communication providers, if they are responsible for disruptions in electronic exchange and communication), utility services providers (electricity and water supply and wastewater disposal, if they fail to timely provide their services or refuse to provide them). For instance, during the period under review several communication channels of an IPS were damaged. After the damage was repaired, the IPS scheduled certain measures which were implemented after the period under review. These measures aimed at the improvement of internal procedures and faster recovery of affected processes.

In this context, the choice of external essential services providers currently comes to the fore. Such services include, among other things:

- access to information and communication technologies which ensure cooperation between PS entities, including communication services;
- transfer information processing services;
- support of the PS data processing centre, leasing and maintenance of data centre facilities;
- transaction data storage (including cloud storage); and
- maintenance and update of information and analytical systems used in risk management.

In the course of the assessment, the Bank of Russia gave IPS operators relevant recommendations as regards cooperation with essential services providers. Furthermore, during the period under review, the Bank of Russia conducted a research dedicated to essential services providers and issued a follow-up report.¹⁵

During the period under review, IPS operators worked out principles, processes and procedures

¹⁵ *Approaches to oversight of essential services providers: Russian Practice and Recommendations of the Committee on Payments and Market Infrastructures* (<http://www.cbr.ru/Queries/UniDbQuery/File/48362?fileId=108>).

of physical and information security and introduced them in daily operations.¹⁶

At the same time, in the follow-up to the assessment, IPS operators have been advised to engage representatives of participants, service providers, associated FMIs, and the Bank of Russia in IPS business continuity mechanism testing. Individual IPSs also received recommendations concerning reserve centres of IPS entities.

2.4.2. Settlement (Principles 8, 9, and 12)

Principle 8: Settlement finality

In accordance with Principle 8, IPS operators should provide final settlement at a minimum by the end of the value date. Where necessary or preferable, an IPS should provide final settlement intraday or in real time.

Completing final settlement by the end of the value date is important because the deferral of final settlement to the next business day can create liquidity pressure for IPS participants and other stakeholders, and potentially be a source of systemic risk.

In the international practice, settlement finality in the PS has two meanings:

- Operationally, it is defined as an irrevocable and unconditional funds transfer, or a discharge of an obligation by a PS or its participants in accordance with the terms of the underlying contract.¹⁷

- In a broader meaning, it includes the aspects of legal protection of funds transfer should there be attempts to recognise it as invalid, enforce recovery of transferred funds, including in the case of a PS participant's insolvency (bankruptcy).¹⁸

The notion of settlement finality is not defined in Russian law. However, the NPS Law in-

cludes such terms as funds transfer irrevocability, funds transfer unconditionality and funds transfer finality.

In the assessed IPSs, the PS rules determine, in accordance with Russian law, the points in time when a funds transfer becomes irrevocable and unconditional, and the earliest possible settlement finality is ensured to mitigate settlement risk.

The point in time when funds transfers, including cross-border transfers,¹⁹ become irrevocable is determined after the PISP completes the steps initiated by the funds transfer instruction of a PS participant, after which the participant cannot revoke the instruction.

A funds transfer becomes unconditional when a number of conditions determined in the PS rules are met.

The results of the assessment suggest that the assessed IPSs comply with this principle. As regards the finality aspect associated with legal protection of funds transfers, Russian law only guarantees such protection for transactions where credit institutions have obligations arising from determining payment clearing positions on a net basis, and for monetary funds in the account of the PS guarantee fund.²⁰

Principle 9: Money settlements

In accordance with Principle 9, IPS operators should conduct their money settlements in central bank money to ensure the SFPS, as funds transfers over accounts with the central bank minimise credit and liquidity risks in the PS.

However, in accordance with this principle, if an IPS settles in commercial bank money, it should take a closer look at the credit institution acting as a settlement centre. If an IPS settles in commercial bank money, such banks should be imposed with elevated settlement risk (settlement asset risk) management requirements, including credit and liquidity risk. Managing financial risks of a settlement centre is essential to the SFPS as their materialisation may cause financial losses of IPS entities, including its participants.

¹⁶ Information Security of Russian Banking Institutions (http://cbr.ru/credit/Gubzi_docs/).

¹⁷ Operationally, a clear definition of settlement finality is needed for a participant could exercise its right to use monetary funds credited on its account, and essential for the scenario of regulated orderly wind-down, when positions of the participant and other stakeholders should be determined promptly.

¹⁸ Bank of Russia Letter No. 56-T, dated 4 April 2014, 'On the Application of CPSS BIS Principles for Financial Market Infrastructures as Regards Settlement Finality in Important Payment Systems'.

¹⁹ For IPSs which execute cross-border funds transfers.

²⁰ The assessed IPSs neither apply settlements on a net basis, nor have a guarantee fund.

Box 5. International implementation of Principle 9

In the international practice, PSs settle in two main ways: in central bank money and in commercial bank money. PS operators are free to determine the appropriate settlement mechanism depending on the specifics of the PS.

According to the PFMI PSs should settle in central bank money to avoid the possible effect of settlement asset risk on settlements.

Key advantages of settlements in central bank money are as follows:

- the avoidance of credit risk materialisation in PS participants as the central bank cannot fail to deliver on its obligations;
- permanently available liquidity in the national currency in the settlement centre;
- the equal access to settlements in central bank money for market participants; and
- the increasing efficiency of liquidity utilisation by PS participants due to settlements through the single settlement centre.

Central banks aim at developing and enhancing the banking system, ensuring stability of the financial market and national PSs, whereas credit institutions aim at gaining profit, and therefore take risks and carry out transactions which trigger settlement asset risks.

However, PS operators, especially those performing cross-border funds transfers, do not find it appropriate to settle in central bank money in every instance.

The use of only one of the above settlement mechanisms is possible; however, both mechanisms are usually operational in advanced economies. High level of robust competition between credit institutions (that influences the quality and cost of their services) coupled with a reliable mechanism of settlement in central bank money has a positive impact on effectiveness and efficiency of the national PS overall.

A number of jurisdictions require that certain settlements should be made in central bank money. In particular, ECB Regulation No. 795/2014, dated 3 July 2014, 'On Oversight Requirements for Systemically Important Payment Systems' stipulates that systemically important PSs facilitating euro-denominated transfers should settle in central bank money. Along with the European jurisdiction, final settlements take place in central bank money in the US, Australia, Brazil, Mexico, and South Africa. To minimise settlement asset risks in the financial market, the Bank of England is realising project about granting non-bank payment services providers direct access to their accounts with the Bank of England.

The Bank of Russia's IPS assessment identified that the assessed IPSs comply with this principle. The recommendations aimed at updating policies, provisions and other documents related to settlement asset risk management.

Settlement asset risk of IPS settlement centres should be managed not only in accordance with PS rules, but also as part of bank risk management governed by internal documents of the settlement centre, which factor in the requirements and recommendations of the Bank of Russia and relevant best international practices.

In accordance with the PFMI, a particular case of settlements in commercial bank money is transfers on its own books when an IPS operator simultaneously serves as a settlement centre.

In effect, the assessed IPSs settle:

- in Bank of Russia money (BRPS); and
- on their own books (when an IPS operator is a credit institution and serves as a settlement centre) (NSD PS and KoronaPay PS).

Currently, settlements under financial market transactions can be made in money on correspondent accounts with the Bank of Russia on the delivery versus payment basis (DVP-1) in real time.

Principle 12: Exchange-of-value settlement systems

In accordance with Principle 12, IPS operators should eliminate principle risk by conditioning the final settlement of one obligation upon the final settlement of the other. Principle 12 regulates the settlement of transactions that involve the settlement of two linked obligations. This applies to IPSs that execute funds transfers within transactions made on organised trading facilities (NSD PS). Such transfers are made through

the use of conditional funds transfers. The use of technological procedures enabling a linked transfer of funds and securities ensures compliance with Principle 12.

2.4.3. Participation management and rules and procedures applied in case of a participant's default (Principles 18, 19, and 13)

Principle 18: Access and participation requirements / Principle 19: Tiered participation arrangements

In accordance with Principles 18 and 19, IPS operators should clearly define and publicly disclose fair IPS participation (access) criteria, which take into account, among other things, risks caused by participants and capable of affecting other participants and the IPS as a whole. IPS operators should also assess risks arising from tiered participation arrangements (direct and indirect participants).

Article 21 of the NPS Law lists the organisations which may join the PS; PS operators define possible participants in their PS rules in accordance with this article.

PS rules should cover publicly available requirements enabling equal access of the same type participants to the PS. These requirements may apply to financial standing, technological support and other factors affecting the SFPS, and should be based on considerations of security and efficiency of an IPS taking into account the specifics of the markets it serves.

Recommendations of Principle 18 were to some extent fixed in the NPS Law. Consequently, the Bank of Russia analyses PS rules as regards the participation criteria, as well as criteria for participation suspension and termination, in the course of PS operator registration and PS rule review.

The assessed IPSs provide fair and open access to their services; this is ensured by the type of participation (direct participation) that is uniform for all IPS participants. The assessed IPSs did not provide for an indirect participation in the period under review. IPS participation requirements are uniform for all participants and backed by law as regards composition of participants, the opening of a bank account with the

settlement centre, acceptance of PS rules, and practical activity as regards security and effectiveness of funds transfers in IPSs.

The criteria for participation suspension (termination) covered in PS rules usually provide for as follows:

- Participation is suspended if risk factors are identified which may negatively affect a participant's creditworthiness (financial standing deterioration), including violations of ratios and (or) requirements set by law;
- Participation is terminated if a participant announces liquidation, or undergoes insolvency (bankruptcy) proceedings.

In accordance with Article 20 of the NPS Law, PS operators define the procedure for controlling compliance with PS rules in the PS rules. IPS operators updated their procedures for control over participants to protect interests of all parties taking into account the Bank of Russia's recommendations received in the course of the first assessment cycle. Recommendations provided in the course of the last assessment cycle regarded the development of measures aimed at encouraging customers of IPS settlement centres to accept PS rules and become participants.

Principle 13: Participant-default rules and procedures

In accordance with Principle 13, IPS operators should have effective and clearly defined rules and procedures for cooperation in the event of a participant default, which are formalised and communicated to all stakeholders. These rules and procedures should be designed to ensure that IPS operators can take timely actions to contain losses of all stakeholders.

In disregard of the effective requirements for IPS participation and IPS operators' control over participants, IPS architecture, including clearing and settlement procedures, should minimise fallouts from participants' default on obligations for other participants and the IPS as a whole. The assessment confirmed the previous assessment findings that the assessed IPSs minimise such fallouts by means of:

- transferring funds within the amount deposited by a participant on the respective account;

- limiting interbank settlements;
- settling over a participant's accounts with the settlement centre on a gross basis or by the end of the business day when the participant's instruction should be executed; and most systems provide no intraday loans (overdrafts) and (or) overnight loans, or other types of lending for participants to finalise settlements.

At the same time, even if no loans are in place, a participant's default may have a negative effect on non-defaulting participants if the defaulting participant has orders placed in the intraday queue and the queue of overdue orders at the time of default. In this context, IPS settlement centres manage intraday queues of participants' orders.

At the end of a transaction day, orders from the intraday queue of deferred orders unsettled due to the insufficiency of monetary funds are usually cancelled or returned to participants. Orders from the queue of overdue orders may be revoked by the sender. The assessment revealed that the respective procedures are described in appropriate detail in PS rules.

In accordance with IPS statements analysed in the course of the assessment, the share of cancelled (returned) orders, including in cumulative terms, is insignificant in the period under review. The effect of participants' default on financial obligations on other IPS participants is immaterial.

IPS participants, in turn, implement measures to deliver on their obligations in the IPS, namely:

- control sufficiency of monetary funds on the account with the settlement centre and replenish it, if necessary;
- monitor and forecast the volume of orders from their customers; and
- manage their own financial risks in accordance with the applicable law, Bank of Russia regulations and PS rules.

Should a default of one participant cause liquidity constraints of another participant, this participant usually can ease liquidity pressure by means of a transfer of monetary funds needed for further settlements to its bank account with the settlement centre.

PS rules and other IPS internal documents rule out any changes in regular settlement procedures should a participant default on its financial obligations. Consequently, the need for

procedures for timely communication of participants' defaults on their financial obligations, as recommended by this Principle, is non-existent.

In case of an operational default, participants of the assessed IPSs should immediately inform IPS operators about the emergency situations in accordance with the procedures stipulated in the documents governing cooperation between IPS operators and their participants. As a rule, in case of an operational default, instructions can be submitted to IPSs in hardcopy.

IPS operators implemented recommendations they received during of the previous assessment as regards the definition of financial and operational default of participants and formalisation of default procedures. Documents approved by IPS operators aim at timely settlement in the system in an emergency situation that is possible in the market, prevention and minimisation of losses of an IPS operator and other IPS entities delivering on financial obligations in the system, and IPS participation management (suspension and termination).

In the course of the latest assessment of this principle, all the assessed IPSs were rated as observed and received no recommendations from the Bank of Russia.

2.4.4. IPS efficiency (Principle 21), communication procedures and standards (Principle 22), and IPS information disclosure (Principle 23)

Principle 21: Efficiency and effectiveness

In accordance with Principle 21, IPS procedures should be designed to meet the needs of their participants and markets they serve.

In the course of the first assessment cycle, IPS operators received recommendations aimed at formalisations of multiple rules and procedures as regards IPS efficiency and effectiveness, including the documentation of:

- goals and objectives of IPS establishment and functioning;
- mechanisms of regular efficiency and effectiveness analyses of their activity (including, by means of establishing respective efficiency indicators, their threshold values and assessment); and

Box 6. Sample list of PS efficiency assessment lines

1. General indicators outlining:

- 1) the return on fixed and variable costs on PS operations as a whole (cost effectiveness);
- 2) the number and value of transfers, and the number of PS participants; and
- 3) claims received and disputable cases.

2. Operational (performance) indicators outlining:

- 1) PS technological accessibility;
- 2) the actual PS capacity utilisation as compared with its capacity utilisation according to the specification (operational efficiency);
- 3) the efficiency of informational threat countering; and
- 4) the transfer processing rate.

3. Liquidity management efficiency indicators outlining:

- 1) the turnover or netting index (e.g., the ratio between the average debits from participants' accounts to the total of the average balances on participants' accounts and the average crediting of these accounts in a certain period);
- 2) a delay in execution of participants' instructions (e.g., the deviation of the average time of execution of all instructions from the standard (established) time of instruction execution); and
- 3) the frequency of instruction cancellation or revocation (the ratio between cancelled or revoked instructions and the total number of instructions received).

– procedures for consideration of IPS participants' opinion.

After the implementation of these recommendations for achieving the main goals of IPS functioning, IPS operators determined the objectives aimed at ensuring convenient, accessible and safe funds transfer with the use of innovative technologies and services. In the period under review, the expected results of IPS operators' activity were mainly associated with the expansion of the customer base and the increase in the number and value of operations.

IPS operators usually determine goals and objectives of IPS establishment and development in their strategies and business plans. Should an IPS operator combine its operations with other activities, goals and objectives should be determined for the organisation as a whole and individual business lines, including as regards the activity of the PS.

It is appropriate to determine target indicators of IPS activity, against which it is assessed on a regular basis, in these documents. IPS operators develop the system of indicators to assess the internal and external efficiency and effectiveness of IPS operations.

The architecture of a modern IPS aims at meeting the requirements of its participants and other financial market players, timely and reliable delivery on its obligations, ensuring efficiency and ef-

fectiveness, and maintaining the necessary customer service level.

Feedback mechanisms which allow participants to propose improvements to IPS operations help IPS meet participants' and other customers' requirements.

The assessment results showed that various consumer committees working within IPS operators' governing bodies help timely identify changes in financial market participants' needs.

Participants' and their customers' needs are identified through the satisfaction index research (usually, on an annual basis), surveys, polls and marketing research of certain consumer segments, and through the analysis of demand for services and accessibility of participant and customer services. Based on the results of the satisfaction index research, IPS operators work out measures to improve performance in the areas which least satisfied participants and their customers.

Based on the results of the satisfaction index survey in the period under review, IPS operators identified the following areas for improvement: tariff policy, smooth hardware and software operation, and simplified integration of IPS hardware and software with customers' hardware and software. As a rule, currently consumers are most satisfied with the speed of document processing and payments in IPSs and customer service.

However, despite the visible advance in this area, the Bank of Russia's recommendations provided in the course of the latest assessment concerned the efficient cooperation between IPS operators and their customers, improvements to IPS performance assessment tools, and tariff policy.

Principle 22: Communication procedures and standards

In accordance with Principle 22, IPS operators would use or accommodate relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, and settlement.

IPSs' adoption of internationally accepted communication procedures and standards for core functions can facilitate automation of clearing and settlement, reduce risks and transaction costs, improve efficiency, and eliminate payment services market entry barriers. Standardised communication procedures provide a common set of rules for exchanging messages between participants. Improving the quality of communication procedures and transaction processing can help reduce the number of errors, avoid information losses, and ultimately reduce the resources needed for IPS data processing by its participants.

IPS entities exchange electronic messages through both public and dedicated channels. The SWIFT system facilitates electronic message exchange in IPSs; however, IPSs use their own electronic document workflow systems with internal electronic message formats.

As part of their action plan to implement recommendations received in the follow-up to the

previous assessment, IPS operators improve their electronic document workflow on a regular basis. The improvement process is governed by the needs of IPS participants and markets they serve, and factors in the internationally accepted standards and the need to use alternative financial messaging systems to mitigate risks of unilateral suspension and (or) termination of services by third party providers of critical financial messaging services.

Principle 23: Disclosure of rules, key procedures, and market data

In accordance with Principle 23, IPS operators should disclose information about their rules and procedures, and should provide sufficient information to enable participants to make reasoned decisions about their participation in the IPS, and have an accurate understanding of the risks, fees, and other material costs they incur by participating in the IPS. They should also enable regulators to use such information in IPS supervision and oversight.

Over the past two years, IPS operators have increasingly focused on public disclosure of information about their activity to all stakeholders, as they realise that IPS transparent operations help provide public insight into IPSs, enhance participants' and their customers' confidence in IPSs, and ultimately improve IPS efficiency as a whole.

In compliance with the law, IPS operators post their PS rules and fees on their websites. Along with such significant aspects of IPS functioning as participation requirements or clearing and settlement procedures, PS rules define the risk man-

Box 7. The Bank of Russia's NPS standardisation efforts

In order to facilitate a guaranteed and continued electronic financial messaging, and reduce risks to security and confidentiality of financial messaging, the Bank of Russia worked out and introduced the Financial Messaging System of the Bank of Russia (SPFS), which had 415 participants as of 1 July 2018.

One of the Bank of Russia's priorities today is to introduce international standard ISO 20022 Financial Services. Universal Financial Industry Message Scheme to enhance standardisation in the NPS. The transition to this standard will help Russian market participants adopt new solutions implemented under ISO 20022, and reduce costs of all parties through the use of a unified payment messaging schemes in domestic and cross-border transactions.

For more information about the Bank of Russia's efforts refer to the National Payment System section of the Bank of Russia website.¹

¹ <http://www.cbr.ru/PSsystem/>.

Box 8. Information disclosure as required by the CPMI-IOSCO

Payment system	Payment system information disclosure
BRPS	http://www.cbr.ru/Content/Document/File/16227/kpri.pdf
NSD PS	https://www.nsd.ru/common/img/uploaded/files/disclosure/int_docs/ifru_.pdf
KoronaPay PS	http://www.zolotayakorona.ru/Pages/default.aspx
Sberbank PS	http://www.sberbank.ru/ru/credit_org/bankingservice/corespondent_relations#
MasterCard PS	http://www.mastercard.com/ru-ru/about-mastercard/what-we-do/rules-fees.html
Visa PS	https://www.visa.com.ru/content/dam/VCOM/regional/cemea/russia/about-visa/docs/Visa-Disclosure-final-25122017.pdf

agement system and efforts aimed at ensuring the SFPS, reflect information about promoting a guaranteed level of operational services continuity and emergency response procedures, and establish procedures for cooperation between IPS entities in cases of emergency, and communication to the IPS operator of events which caused operational failures, their reasons and consequences. Thereby, participants are informed about PS rules, fees and IPS operator's key efforts in risk management and operational continuity.

In order to ensure transparency, publicly accessed may be PISP data, templates of contracts and supplements which define rights and obligations of the parties. IPS operators disclose information about their financial performance, including the Profit and Loss report, consolidated financial statements, annual report, etc.

IPS operators publicly disclose IPS quantitative data. In particular, the Bank of Russia discloses the information about the BRPS on its website, and in the Bank of Russia Annual Report, among other things. Also, the Bank of Russia posts on its website BRPS accessibility ratios, and discloses information about electronic messaging technologies and procedures applied for funds transfers in the BRPS.²¹

Documents and information are publicly available on IPS operators' websites.

In the follow-up to the first assessment, IPS operators published information about IPSs with structure as recommended by the CPMI-IOSCO; the information was posted on their websites in Russian and, in some cases, in English; thereby,

information disclosed about Russian IPSs was comparable with the information about systemically important PSs disclosed in other jurisdictions. This information is expected to be updated in the follow-up to the second assessment cycle, of which the Bank of Russia has already advised to IPS operators.

IPS operators assess participants' understanding of PS rules and other procedures using feedbacks on participants' claims and inquiries, and the index of participants' and their customers' satisfaction (see Principle 21).

In the course of the assessment, the Bank of Russia recommended IPS operators to enhance their cooperation with participants and their customers, and improve accessibility of IPS information.

2.5. The Bank of Russia's activities in relation to important payment systems

The reassessments of the BRPS, NSD PS, and KoronaPay PS found that their operators successfully implemented recommendations received in the follow-up to the first assessments. For key recommendations included in the action plan refer to Table 5 of the 2014-2016 oversight findings.²² These efforts helped raise the ratings in the course of the reassessment (see Section II.3).

In the reassessment reports, the Bank of Russia provided a number of recommendations to IPS operators to improve functioning of the re-

²¹ The Bank of Russia Payment System (http://www.cbr.ru/PSystem/system_p/).

²² For the results of the national payment system oversight in 2012-2014 and 2014-2016 refer to the Bank of Russia website (http://www.cbr.ru/PSystem/monitoring_p/).

THE IMPLEMENTATION OF CHANGES IN THE FUNCTIONING OF IPS

Table 6

Principle	Activity
1	Fine-tuning IPS legal base (IPS documents)
2	Recoding achievable and measurable IPS development goals and objectives in strategic IPS documents
3	Fine-tuning PS rules as regards risk management and the SFPS Sharing responsibilities and accountability for IPS risk management between IPS operator's divisions Implementing functions of the IPS Risk Management Committee Stress-testing liquidity risk and other IPS risks Analysing the effect of IPS risk factors on the SFPS Including risk analysis procedures in IPS internal documents when introducing new services
17	Testing the action plan aimed at ensuring continuity and (or) recovering operations with IPS participants and essential services providers Analysing the effect of operations of essential services providers on the SFPS, including the cases of suspensions of their activity
18	Encouraging settlement centres' customers to become PS participants (join PS rules)
21	Surveying participants about IPS functioning to analyse participants' satisfaction and determine IPS improvements
23	Improving IPS participant feedback mechanisms Raising IPS information accessibility

spective IPSs. The Bank of Russia's recommendations have been included in transformation plans of these IPSs, as agreed with the Bank of Russia.

Table 6 lists the main recommendations included in the action plan in the follow-up to the second assessment cycle.

Reassessments confirmed that after the actions were taken, IPS operators managed to implement many aspects of the PFMI recommended for introduction. The analysis of Table 6 allows for a conclusion that there is room for improvement of IPS operations, but these issues are of a particular nature, given that the basic aspects of IPS operations have been brought in almost full compliance with the PFMI. Improvements refer to risk management (in particular, operational risk) and raising efficiency of cooperation with IPS participants and promoting their interests.

The Bank of Russia intends to further implement the PFMI in the Russian jurisdiction as follows:

- the follow-on assessment as regards other IPSs;

- cooperation with IPS operators as regards monitoring of their implementation of transformation plans in the follow-up to the assessment, which should be completed by the next assessment cycle;

- the issue of Bank of Russia recommendations to summarise best practices of application of the PFMI in all PSs;

- examination of new CPMI and IOSCO approaches to the analysis of IPS stability and the introduction of internationally accepted standards taking into account the best international practice;

- consultations (workshops, internships) with foreign central (national) banks and IPS operators to share best practices as regards the application of the PFMI; and

- the development and improvement of international cooperation mechanisms, including for the purpose of the Bank of Russia's full compliance with responsibilities of central banks included in the PFMI.

CONCLUSION

This publication summarises the results of the Bank of Russia oversight activity in NPS in 2016 – June 2018 which show positive trends in the Russian payment market, including the compliance of its entities and infrastructure with international standards, as well as growth of quantitative indicators associated with payment services, and expanding share of non-cash payments.

The Bank of Russia is intending to further improve its oversight in NPS to cover more payment market participants and new instruments and technologies. The regulator will continue to identify NPS development trends and potential, and the associated risks, as well as automate information processing and analysis.

The Bank of Russia's further oversight efforts also provide for an enhanced cooperation between oversight and supervision, and raising efficiency of the Bank of Russia's communication with payment market participants via a system of personal online accounts. This will allow a more detailed analysis the specifics of NPS entities' functioning, as well as their payment services and payment infrastructure services, interaction between NPS entities and other organisations (including new participants of the payment market), their influence on the payment market and financial stability overall.

The Bank of Russia will continue analyse best international practices and international standards for expediency and possibility of their further implementation in the Russian jurisdiction, as well as move forward with international integration.

Appendix 1 (as of 1 July 2018)

Payment systems operating in Russia¹

№	Payment system (PS)	PS operator	Payment infrastructure			PS importance
			Settlement centre	Payment clearing centre	Operating centre	Systemically important PS
						Socially important PS
						Nationally important PS
1.	Bank of Russia Payment System	Bank of Russia	Bank of Russia	Bank of Russia	Bank of Russia	Systemically important PS Nationally important PS
2.	NSD Payment System	NCI JSC National Settlement Depository	NCI JSC National Settlement Depository	NCI JSC National Settlement Depository	NCI JSC National Settlement Depository	Systemically important PS Nationally important PS
3.	Mir Payment System	JSC NSPK	Bank of Russia	JSC NSPK	JSC NSPK	Nationally important PS
4.	Visa Payment System	Visa Payment System LLC	Bank of Russia	JSC NSPK	JSC NSPK	Socially important PS
5.	KoronaPay Payment System	SNCI Payment Centre LLC	SNCI Payment Centre LLC	CJSC KORONAPAY	CJSC KORONAPAY	Socially important PS
6.	MasterCard Payment System	MasterCard LLC	Bank of Russia	JSC NSPK	JSC NSPK	Socially important PS
7.	Sberbank Payment System	PJSC Sberbank	PJSC Sberbank	PJSC Sberbank	PJSC Sberbank	Socially important PS Nationally important PS
8.	International Money Transfer Payment System UNISTREAM	JSC CB Unistream	JSC CB Unistream	JSC CB Unistream	JSC CB Unistream	Nationally important PS
9.	NCC Payment System (NATIONAL CREDIT CARDS)	CJSC NCC	PJSC BANK URALSIB	CJSC NCC	CJSC NCC	Nationally important PS
10.	Union Card Payment System	CJSC Processing Company Union Card	PJSC BANK URALSIB JSC JSCB NOVIKOM-BANK	CJSC Processing Company Union Card	CJSC Processing Company Union Card CJSC NCC	Nationally important PS
11.	HandyBank Payment System	HandySolutions LLC	PJSC Bank FC Otkritie CB Necklace Bank LLC	HandySolutions LLC	HandySolutions LLC	Nationally important PS
12.	BLIZKO Payment System	PJSC JSCB Svi-az-Bank	PJSC JSCB Svi-az-Bank	PJSC JSCB Svi-az-Bank	PJSC JSCB Svi-az-Bank	Nationally important PS
13.	CUSTOMS CARD Payment System	Customs Card LLC	NCI MKS LLC PJSC Sberbank PJSC Bank FC Otkritie	Customs Card LLC	Customs Card LLC	Nationally important PS
14.	Multiservice Payment System	Multiservice Payment System LLC	VTB Bank (PJSC) Vozrozhdenie Bank (PJSC) JSC Nefteprombank	Multiservice Payment System LLC	Multiservice Payment System LLC	Nationally important PS
15.	VTB Payment System	VTB Bank (PJSC)	VTB Bank (PJSC)	VTB Bank (PJSC)	VTB Bank (PJSC)	Nationally important PS
16.	REXPAY Payment System	CB Geobank (LLC)	CB Geobank (LLC)	RUCARD LLC	RUCARD LLC	Nationally important PS
17.	BEST Payment System	BEST LLC	NCI ORS (JSC) Commercial Bank VRB (LLC)	BEST LLC	BEST LLC	Nationally important PS

¹ Given the information from the PSO Register.

№	Payment system (PS)	PS operator	Payment infrastructure			PS importance
			Settlement centre	Payment clearing centre	Operating centre	Systemically important PS
						Socially important PS
						Nationally important PS
18.	Sendy Payment System	Digital Pay LLC	NCI Russian Financial Society (LLC)	Digital Pay LLC	Digital Pay LLC	Nationally important PS
19.	CONTACT Payment System	QIWI Bank (JSC)	QIWI Bank (JSC)	QIWI Bank (JSC)	QIWI Bank (JSC)	Nationally important PS
			PJSC Bank FC Otkritie			
			VTB Bank (PJSC)			
20.	Western Union Payment System	LLC NCI Western Union DP Vostok	VTB Bank (PJSC)	LLC NCI Western Union DP Vostok	LLC NCI Western Union DP Vostok	
			NCI ORS (JSC)			
			LLC NCI Western Union DP Vostok			
21.	Insurance Payment System	LLC SPS	JSC ALFA-BANK	LLC SPS	LLC SPS	
22.	American Express Payment System	LLC American Express Bank	Bank of Russia	JSC NSPK	JSC NSPK	
23.	UnionPay Payment System	LLC UnionPay	Bank of Russia	JSC NSPK	JSC NSPK	
24.	JCB Payment System	LLC JCB International (Eurasia)	Bank of Russia	JSC NSPK	JSC NSPK	
25.	JSCB BANK OF CHINA Payment System	JSCB BANK OF CHINA (JSC)	JSCB BANK OF CHINA (JSC)	JSCB BANK OF CHINA (JSC)	JSCB BANK OF CHINA (JSC)	
26.	ICBC Payment System	ICBC Bank (JSC)	ICBC Bank (JSC)	ICBC Bank (JSC)	ICBC Bank (JSC)	
27.	KP Retail Payment System	LLC KP Retail	LLC SNCI RIB	LLC KP Retail	LLC KP Retail	
			NCI ORS (JSC)			
28.	ONE TWO THREE Payment System	JSC MPS 123	JSC GLOBEXBANK	JSC MPS 123	JSC MPS 123	
29.	United Settlement System Payment Service	NCI ORS (JSC)	NCI ORS (JSC)	JSC KOKK	JSC KOKK	
				CJSC SwitchMaster.RU	CJSC SwitchMaster.RU	
30.	PLUSPAY Payment System	LLC PLUSPAY	LLC SNCI RIB	LLC PLUSPAY	LLC PLUSPAY	
31.	Banking Cooperation System Payment System	LLC Banking Cooperation Operator	NCI ORS (JSC)	LLC Bank Operating Centre	LLC Bank Operating Centre	
32.	MOMENTOM Payment System	LLC RSMP	PJSC MIN BANK	LLC RSMP	LLC RSMP	
			NCI MKS LLC			
33.	NARODNAYA Payment System	JSC Narodny Bank	JSC Narodny Bank	JSC Narodny Bank	JSC Narodny Bank	
34.	FedPay Payment System	JSC FedPay	BANK AGORA (LLC)	JSC FedPay	JSC FedPay	
			LLC SNCI Wallet One			
35.	BitPoint Payment System	LLC BitPoint	CB Moskommertsbank (JSC)	LLC BitPoint	LLC BitPoint	

Appendix 2

NPS-related federal laws issued in 2016-2018

1. Federal Law No. 169-FZ, dated 27 June 2018, 'On Amending Article 14 of the Federal Law 'On the National Payment System'.
2. Federal Law No. 167-FZ, dated 27 June 2018, 'On Amending Certain Laws of the Russian Federation for Countering Embezzlement'.
3. Federal Law No. 53-FZ, dated 7 March 2018, 'On Amending Certain Laws of the Russian Federation'.
4. Federal Law No. 88-FZ, dated 1 May 2017, 'On Amending Article 16.1 of Russian Federation Law No. 2300-1, Dated 7 February 1992, 'On Consumer Protection' and Federal Law 'On the National Payment System'.
5. Federal Law No. 59-FZ, dated 3 April 2017, 'On Amending Federal Law 'On the National Payment System'.
6. Federal Law No. 288-FZ, dated 3 July 2016, 'On Amending Certain Laws of the Russian Federation'.
7. Federal Law No. 290-FZ, dated 3 July 2016, 'On Amending the Federal Law 'On the Use of Cash Register Equipment When Performing Cash Payments and (or) Payment Card Settlements' and Certain Laws of the Russian Federation'.

NPS-related Bank of Russia regulations issued in 2016-2018

1. Bank of Russia Ordinance No. 4727-U, dated 26 February 2018, 'On Amending Bank of Russia Regulation No. 423-P, Dated 12 June 2014, 'On the Security Deposits of Payment System Operators Other than Nationally Important Payment Systems'.
2. Bank of Russia Ordinance No. 4725-U, dated 19 February 2018, 'On Amending Bank of Russia Ordinance No. 2824-U, Dated 31 May 2012, 'On Reporting by Payment System Operators on Payment Systems'.
3. Bank of Russia Ordinance No. 4703-U, dated 23 January 2018, 'On Amending Bank of Russia Ordinance No. 3304-U, Dated 27 June 2014, 'On Reporting by Payment System Operators on Payment Systems Used to Make Funds Transfers in Organised Trading'.
4. Bank of Russia Ordinance No. 4598-U, dated 3 November 2017, 'On Amending Bank of Russia Regulation No. 378-P, Dated 2 May 2012, 'On the Procedure for Submitting an Application to the Bank of Russia for Registration of a Payment System Operator'.
5. Bank of Russia Regulation No. 607-P, dated 3 October 2017, 'On the Requirements for the Procedure Ensuring Smooth Functioning of the Payment System, Indicators of Payment System Smooth Operation and Methodologies Used to Analyse Payment System Risks, Including Risk Profiles'.
6. Bank of Russia Ordinance No. 4443-U, dated 3 July 2017, 'On Setting Criteria for Qualifying Payment Systems as Important'.
7. Bank of Russia Ordinance No. 4436-U, dated 27 June 2017, 'On Amending Bank of Russia Regulation No. 422-P, Dated 11 June 2014, 'On the Procedure for the Bank of Russia to Qualify a Payment System as a Nationally Important Payment System'.
8. Bank of Russia Ordinance No. 4248-Y, dated 27 December 2016, 'On Amending Bank of Russia Regulation No. 378-P, Dated 2 May 2012, 'On the Procedure for Submitting an Application to the Bank of Russia for Registration of a Payment System Operator'.
9. Bank of Russia recommendations No. 36-MR, dated 5 October 2016, on improving operations of payment system operators and payment system settlement centres for performing funds transfers without a bank account.
10. Bank of Russia recommendations No. 25-MR, dated 9 August 2016, on the application of the CPSS - IOSCO Principles for Financial Market Infrastructures as regards the assessment of liquid net asset adequacy.

Appendix 3

Bank of Russia press releases and publications related to the oversight in 2016-2018

- Assessment of the NSD payment system: press release, dated 12 April 2018. URL: http://www.cbr.ru/press/PR/?file=12042018_162809if2018-04-12T16_27_26.htm.
- On recognising credit institutions as important in the payment services market by the Bank of Russia: press release, dated 11 April 2018. URL: http://www.cbr.ru/press/PR/?file=11042018_180929if2018-04-11T18_08_39.htm.
- Assessment of the KoronaPay payment system: press release, dated 25 December 2017. URL: http://www.cbr.ru/press/PR/?file=25122017_172442if2017-12-25T17_22_54.htm.
- Assessment of the Bank of Russia payment system: press release, dated 1 December 2017. URL: http://www.cbr.ru/press/PR/?file=01122017_173619if2017-12-01T17_35_51.htm.
- On recognising credit institutions as important in the payment services market: press release, dated 5 April 2017. URL: http://www.cbr.ru/press/PR/?file=05042017_110235if2017-04-05T11_02_06.htm.
- Faster payments - making retail payments faster and more accessible // Payment and Settlement Systems / Bank of Russia. 2017. No. 53. URL: <http://www.cbr.ru/publ/?PrtID=prs&code=109>.
- Approaches to oversight of critical services providers: Russian practice and CPMI recommendations // Payment and Settlement Systems / Bank of Russia. 2017. No. 52. URL: <http://www.cbr.ru/publ/?PrtID=prs&code=108>.
- Approaches to implementation of the CPMI - IOSCO Principles for Financial Market Infrastructures in CPMI member states. The experience of the Bank of Canada and the US Federal Reserve System // Payment and Settlement Systems / Bank of Russia. 2016. No. 51. URL: <http://www.cbr.ru/publ/?PrtID=prs&code=107>.

