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FINANCIAL SECTOR ASSESSMENT PROGRAM

RUSSIAN FEDERATION

FINANCIAL INFRASTRUCTURE

TECHNICAL NOTE

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THE WORLD BANK GROUP
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GLOSSARY

ATM	Automated Teller Machine
BCP	Business Continuity Plan
BESP	Banking Electronic Speedy Payment system
BIS	Bank for International Settlements
BRPS	Bank of Russia Payment System
CBR	Central Bank of Russia
CCP	Central counterparty
CM	Clearing Member
CPMI	Committee on Payments and Market Infrastructure
CSD	Central Securities Depository
DR	Disaster Recovery
DvP	Delivery versus Payment
EFT	Electronic Funds Transfer
FFMS	Federal Financial Market Service
FIFO	First-in-first-out
FMI	Financial Market Infrastructure
FSAP	Financial Sector Assessment Program
FSD	Financial Stability Department
FTO	Funds Transfer Operator
GED	General Economic Department
ICSD	International Central Securities Depository
IDL	Intraday Liquidity
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
ISIN	International Securities Identification Number
KYC	Know Your Customer
MoF	Ministry of Finance
MoU	Memorandum of Understanding
MTO	Money Transfer Operator
MT	Message Type
NCC	National Clearing Centre
NPS	National Payments System
NPSD	National Payment System Department
NPC	National Payment Council
NSD	National Settlement Depository
NSPC	National System of Payment Cards
OTC	Over-the-Counter
PFMI	Principles for Financial Market Infrastructures
PKI	Public key infrastructure
POS	Point of Sale
PSDG	Payment Systems Development Group (of the World Bank)

ROSC	Report on Observance of Standards and Codes
RPO	Recovery Point Objective
RTGS	Real time gross settlement system
RTO	Recovery Time Objective
SD	Settlement Depository
SIPS	Systemically Important Payment Systems
STP	Straight Through Processing
SWIFT	Society for World-wide Interbank Financial Telecommunication
TR	Trade Repository
WB	World Bank

I. EXECUTIVE SUMMARY¹

Payment and Settlement Systems

1. Payment and settlement systems play a crucial role in contributing to financial stability, containing systemic risk and the overall economic development of a nation.

Payment and settlement systems are an essential tool for the effective implementation of monetary policy, and for the smooth functioning of money and capital markets. The efficient and smooth functioning of the payment and securities settlement systems facilitates the discharge of financial obligations and the safe transfer of funds, contributing to the stability of the financial system. It has been recognized by policy makers that providing access to safe and efficient payment systems with easy to use, safe and innovative payment instruments enables greater usage of electronic payments. Innovations in technology enable provision of retail payment services including remittances at a relatively low cost and need to be actively encouraged by policy makers for adoption in delivering payment services.

2. Russia has a well-developed payments, settlement, and post-trade infrastructure.

Key components include the CBR payment system (BRPS) and other payment systems, the National Settlement Depository (NSD), and the National Clearing Centre (NCC). The BRPS and the NSD payment system are designated as systemically important payment systems. The NSD, acting as a central securities depository and a trade repository and the NCC are designated as systemically important financial market infrastructures by the CBR. The BRPS comprises the system for intraregional electronic payments (VER), the system for interregional electronic payments (MER), and the Banking Electronic Speedy Payment system (BESP system). The BESP system provides nationwide settlement on a real-time gross settlement (RTGS) basis. The NSD (part of the Moscow Exchange Group) performs the functions of a central securities depository (CSD); settlement depository systemically important payment system (PS); and trade repository (TR). The NCC is a fully-owned subsidiary of the Moscow Exchange functions as the clearing house and central counterparty (CCP) for various financial markets. On 30.03.2016 there are another 34 registered payment system operators besides BRPS, of which 6 are socially important payment systems based on criteria defined by the CBR. In addition, on 30.03.2016 there are 102 e-money operators registered with the CBR. A centralized switch has been operationalized under the National System of Payment Cards (NSPC) for the processing of all domestic transactions with international cards, with the interbank settlement happening in central bank money in the CBR. A domestic card payment system, under the brand name “MIR”, has been launched.

Legal and regulatory framework

3. The existing framework legislation in Russia providing the legal basis for payments and settlement systems including securities settlement is spread over several legal statutes. These include: Federal Law No.86-FZ July 10, 2002 On the Central Bank of the Russian Federation (CBR law); Federal Law No. 161-FZ of June 27, 2011, On the National

¹ This Technical Note has been prepared by Gynedi Srinivas, Senior Payment Systems Specialist, Payment Systems Development Group, Finance and Markets, World Bank.

Payment System (NPS law) and subsequent amendments; Federal Law No. 414-FZ of December 7, 2011 On the Central Depository (CD law); Federal Law No. 39 –FZ of April 22, 1996 On the Securities Market (Securities law); Federal Law No. 7-FZ of February 7, 2011 On Clearing, Clearing Activities and Central Counterparty; Federal Law No. 127-FZ of October 26, 2002 On Insolvency (Bankruptcy); Civil Code of the Russian Federation Parts One to Four. These laws are supplemented by CBR instructions, regulations, directions and letters/methodological recommendations. The CBR instructions, regulations and directions are regulatory in nature and are registered with the Ministry of Justice, while the letters/methodological recommendations are recommendatory in nature and provide additional clarifications to market participants on CBR regulatory documents.

4. **The framework legislation in Russia comprises the CBR law, NPS law, CD law, Securities law, Clearing and Clearing activities law, Civil Code, and Insolvency law.** Material legal aspects such as settlement finality, netting, collateral arrangements and protection of collateral from bankruptcy, default procedures, novation, open-offer, immobilization and dematerialisation of securities are covered in the framework legislation. These provisions are further supplemented by CBR regulations.

5. **It is desirable that CBR undertake a comprehensive review and harmonize the relevant provisions in the existing framework legislation (through amendments where necessary), in order to provide a higher degree of legal certainty for each material aspect of the legal basis of the national payment system.** For example, it is not very clear as to whether the provisions in the Insolvency law could override provisions related to settlement finality and insolvency remoteness of collateral enumerated in the other laws.

Payment system landscape

6. **The payment system landscape in Russia includes systemically important payment systems, socially important payment systems, other payment systems** which are not systemically and socially important, e-money operators, a centralised switch under the National System of Payment Cards (NSPC), and a domestic card payment system, under the brand name “MIR”.

Systemically important payment systems (SIPS)

7. **The CBR owned and operated payment system - the Bank of Russia Payment System (BRPS), and the National Settlement Depository payment system (NSD-PS)²,** are the two systemically important payment systems in Russia.

8. **The BRPS system has three components - the system for intraregional electronic payments (VER), the system for interregional electronic payments (MER), and the Banking Electronic Speedy Payment system (BESP system).** The BRPS is used for the settlement of both large-value and small-value payments. There is no value limit placed on

² The NSD-PS is discussed in the section on NSD as it is an entity which carries out multiple activities as a payment system, CSD, settlement depository and a trade repository and has an integrated risk management framework.

individual payments. Payments are settled on a gross basis in the VER and MER systems, while the BESP system operationalised in late 2007, and provides nationwide settlement on a real-time gross settlement (RTGS) basis for both urgent interbank payments and other non-urgent payments of non-bank institutions. Liquidity saving mechanisms are provided in VER and BESP systems.

9. Liquidity support in the form of intraday and overnight facility is provided to the participants in the BRPS (VER, MER and BESP) by CBR on a collateralised basis under an overall limit. The collateral is marked-to-market on a daily basis. The amount of liquidity support that can be availed by a participant in the form of intraday and overnight facility cannot exceed the overall limit of liquidity support determined by CBR in respect of each participant. Intraday liquidity that is not repaid is converted to an overnight facility at a rate of interest that is higher than the key CBR rate, which has to be repaid the next day. If it is not repaid the next day, the collateral is enforced by the CBR. The CBR does not ask for any additional collateral on the day of enforcement from the participant (in the event of any decline in the value of the collateral) and in such situations could likely be exposed to a residual credit risk. The CBR however, has the right to withdraw funds from all the correspondent accounts of the participant in the case of default.

10. Operational risk mitigation measures include the use of physical access control measures, IT and cyber security procedures, use of public key encryption technology for message transmission and use of a secondary site for business continuity. The secondary site is located 100 kilometers away from the primary site and staff are physically relocated to the site in a contingency situation. This could potentially impact the recovery time of the system and may have a bearing on resuming operations within 2 hours as laid down in Principle 17 of the PFMI. Business continuity planning exercises are held at least once a year and more often if there is a need. The participants systems are not tested during the business continuity exercises.

11. As an additional tool for risk management, it is recommended that CBR explore the possibility of developing the capability to call for additional collateral on the day of enforcement of the collateral.

12. To further strengthen the business continuity plans, the systems of participants should also be regularly involved in the testing of the business continuity plans, along with other linked FMIs and critical service providers. The impact of relocation of staff on adhering to the recovery time objective of 2 hours of resuming operations from the secondary site may be studied and appropriate staffing arrangements may be carried out as stated in Principle 17 of the PFMI.

Socially important payment systems (SocIPS)

13. There are six socially important payment systems in Russia as on 30 March 2016: (i) MasterCard Payment System, (ii) the Visa Payment System, (iii) the CONTACT payment system, (iv) Payment System «Golden Crown», (v) the International Money Transfer payment

system LEADER and (vi) the Sberbank payment system. The mission met with Sberbank payment system and Golden Crown payment system.

14. **The Sberbank payment system is a pure domestic payment system settling transactions in Rubles.** There are 174 participants as of January 1, 2016 (all domestic banks) in the Sberbank payment system. All transactions are settled on a gross basis during the operating hours of the system from 9am to 9.30 pm. Outstanding transfers at the end of the day are cancelled. The Sberbank payment system settles transactions based on availability of funds in the participants account and does not provide any credit or overdraft facility to the participants. Participants can only send and receive funds transfers with other participants of the Sberbank payments system. There is no interoperability with other payment systems.

15. **Within the Golden Crown payment system the emission of cards (debit, credit and prepaid) is carried out and also provides domestic and cross-border money remittance services.** Its geographic span of operations include Russia and neighbouring CIS countries. Participants can open accounts in both Rubles and permitted foreign currencies in the system. Participants have to maintain a minimum balance in their accounts at all points of time, which is monitored by the Golden Crown payment system and participants have to replenish/top-up the minimum balance as indicated by the system.

16. **Within the Golden Crown payment system settlement runs may take place every one hour. As part of the risk management framework, rules call for settlement by the end-of-the-day, with interbank settlement limits in place.** The settlement limits are determined based on the available balances in the correspondent account of each individual participant. Transactions which exceed the balances are not accepted for settlement and a notification to this effect is sent to the sending participant. This mitigates any credit risk and obviates the need for any guarantee fund mechanism.

17. **Socially important payment systems such as the Sberbank payment system and the Golden Crown payment system are treated by the CBR as being equivalent to the prominently important payment systems as classified by the European Central Bank³.** In line with this approach, the Sberbank payment system and the Golden Crown payment system were assessed by the CBR using a sub-set of 13 principles from the PFMI. Credit and liquidity risk principles do not form part of the 13 principles used for assessment by the CBR as these systems do not pose any serious risks to financial stability.

18. **Interoperability amongst the socially important payment systems should be encouraged by CBR to enable wider reach and coverage of the payment systems in providing cashless payments.** This could contribute to the reduction in the use of cash in the economy.

³ *Revised oversight framework for retail payment systems*, February 2016, European Central Bank
<https://www.ecb.europa.eu/pub/pdf/other/revisedoversightframeworkretailpaymentsystems201602.en.pdf?bc332d9a718f5336b68bb904a68d29b0>

E-money operators

19. **An e-money operator is defined as a funds transfer operator that transfers e-money without opening a bank account under the NPS law.** All e-money operators are licensed as banks or non-bank credit organisations (NBCOs) under the banking legislation. Currently, there are 102 e-money operators registered with the CBR, under the NPS law. Some of the prominent e-money operators in the Russian market are Yandex Money and QIWI.

20. **There are graded Know your customer (KYC) requirements in place for issuance of e-money payment instruments, under the NPS law.** These are classified as: (i) non-personalized electronic means of payment; (ii) personalized electronic means of payment; and (iii) corporate electronic means of payment, with maximum amount of e-money balances prescribed for each category. E-money can be uploaded to the e-wallet (either a physical card or a virtual instrument), through various means and can also be used for a variety of services in Russia. E-money can be uploaded via, cash pay-in at kiosks, through cards, online banking, ATMs and payment terminals. E-money can be used for payment of utility bills, person-to-person transfers, for e-commerce, payment of fines and payment of taxes. E-wallets can also be linked to plastic cards so that they can also be used in the physical world for paying at merchants or transacting at ATMs.

21. **There is a need for stronger regulations on protecting client funds held in separate accounts by e-money operators from the potential bankruptcy of the e-money operator.** The client funds in the separate accounts should be protected against seizure for fulfilling other creditor claims.

22. **It is understood that some e-money operators have entered into bilateral agreements to enable interoperability of their e-money schemes.** While this is noteworthy, such efforts should be replicated on an industry-wide basis, to promote the greater usage of e-money.

Retail payments including Government payments and Remittances

23. **Cash is one of the major payment means used for retail payments in the Russian Federation.** Credit transfers, direct debits, payment cards and e-money are the non-cash retail payment instruments used in Russia. Amongst these, payment cards are by far the most popular mode of non-cash retail payment instrument. Banks issue internationally branded cards – both debit and credit cards. In addition to internationally branded cards, a domestic national debit card under the brand name “MIR” has been launched in December, 2015 by the National System of Payment Cards (NSPC – a fully owned subsidiary of the CBR). All domestic transactions with international cards are processed and cleared domestically, through a centralized switch owned and operated by the NSPC, with the interbank settlement happening in central bank money in the CBR.

24. **ATMs and PoS terminals are interoperable in Russia.** The number of PoS terminals is higher compared to the number of ATMs in Russia. In addition, Russia has payment

terminals/agents⁴ which accept cash (but not cards) for fulfilling various payment needs of the public such as mobile airtime top-ups; payment of utility bills etc. obviating the need for the public to visit branches/offices to make payments. Banks also engage bank payment agents who provide a variety of services. Banks also provide internet and mobile banking applications to their customers.

25. **Russia has both inward and outward cross-border remittances, with the share of outward remittance flows from Russia outpacing the inward flows Russia.** The remittance flows (outward and inward) to the CIS countries largely comprise migrant workers remittances. These remittances are typically made through Money Transfer Operators (MTOs) which are credit organisations licensed under the banking legislation to provide funds transfer services. Being credit institutions such MTOs can also provide accounts to their clients. In the context of inward remittances, channeling such remittances into accounts could serve as a first step in financial inclusion efforts and also aid in promotion of cashless payments. Data on remittance inflows being credited to accounts of beneficiaries is available in an aggregated manner in Russian at <http://cbr.ru/statistics/?PrtId=svs>.

26. **Concerted efforts are required for increasing the use of non-cash retail payments and reducing the use of cash,** which would simultaneously aid financial inclusion efforts, through the formulation of a comprehensive national strategy with defined timelines for achieving the identified targets. The strategy should be formulated by CBR in coordination with all relevant stakeholders such as the FMIs, the Government (MOF), payment system operators including MTOs, e-money operators and their representative bodies. The CBR Consulting Board on the national payment system improvement issues chaired by the CBR Governor should be used for this purpose.

27. **The comprehensive national strategy, could illustratively focus on measures such as:**

- i. facilitating transaction accounts for all citizens, with greater usage of (debit and credit) cards;
- ii. promoting online payments through the internet and mobile with adequate security measures;
- iii. deepening the PoS infrastructure;
- iv. rationalize the fee structure for non-cash payment modes;
- v. leveraging the existing payment infrastructure to promote retail electronic payment products;
- vi. increasing the usage of e-money wallets;
- vii. channelizing remittance proceeds into transaction accounts;
- viii. enabling acceptance of payments through cards and e-wallets in addition to cash at payment terminals; and
- ix. facilitating greater usage of the payment system infrastructure for both government payments and receipts to further reduce usage of cash.

⁴ Reliable data on the number of payment terminals and their ownership is not readily available. Payment agents' activities are regulated and controlled by other public authorities and not by the CBR.

National Settlement Depository – Overview

28. **National Settlement Depository (NSD) is a non-bank credit institution that performs various financial market infrastructure functions in the Russian market.** NSD is the: central securities depository (CSD); settlement depository (SD); systemically important payment system (SIPS); and a trade repository (TR).

29. **NSD is governed by a Supervisory Board consisting of 15 directors, 4 of whom are independent directors.** There are 4 committees of the Supervisory Board including the Audit Committee which is headed by an independent Director. The Audit Committee is responsible for internal control and external audit and risk management systems at NSD. The Supervisory Board of NSD is responsible for the overall risk management function of NSD. The risk management functions are centralized in the Risk Management Department which along with Internal Control and Internal Audit departments are functionally independent from business units, with sufficient authority, resources and access to the Supervisory Board to discharge their duties effectively.

NSD – CSD and Settlement depository

30. **NSD is the sole CSD for Russian equities, corporate and government bonds, investment units of unit investment funds, mortgage participation certificates, and depository receipts as well as foreign securities through its link arrangements with international central securities depositories (ICSDs) and foreign CSDs.** 57 percent of the securities held in the CSD are dematerialised, while the remaining 43 percent are immobilised.

31. **Proprietary assets of participants are segregated from the assets of their clients in the books of the CSD.** NSD's own assets are also segregated from participant's assets. No overdrafts are allowed in any accounts. Daily reconciliation of securities balances in accounts is undertaken by NSD, irrespective of transaction in the securities accounts. Assets held in custody are protected from custody risk through an integrated insurance policy, which covers events as negligence, misappropriation of assets, fraud, poor management, etc.

32. **NSD acts as a settlement depository for settling securities trades carried out over the Moscow Stock Exchange (on-exchange trades) as well as OTC transactions.** On-exchange trades are settled on a Delivery-versus-payment (DvP) basis. OTC trades are settled both on DvP basis using any of three DvP models, with DvP 2 model being widely used, and Free-of-payment (FoP) basis. On-exchange trades are settled on a T+0 or T+n (the maximum value of "n" being 2 days), while all OTC trades are settled on a T+0 basis. NSD is not exposed to any credit risk either in the on-exchange or OTC segments, as it settles both securities and funds legs only if there are available balances. In case of FoP settlements NSD does not take any obligations to finalize settlements in the event of a clearing member's bankruptcy. Having a banking status enables NSD to access CBR's refinancing operations for its liquidity needs if any.

33. **NSD has links with the ICSDs and CSDs in the neighbouring countries.** Its link relationship with the ICSDs and the foreign CSDs can take the form of an investor CSD or an issuer CSD with the ICSDs and the foreign CSDs becoming investor CSDs.

NSD – Payment system (NSD-PS)

34. **The NSD-PS is designated as a systemically important payments system by the CBR.** The NSD-PS clears and settles the funds leg of securities transactions carried out over the Moscow Stock Exchange; OTC transactions and CBR open market operations, repo transactions, and refinance operations to credit institutions. The NSD-PS accounts for approximately 10 percent of the funds transfer value in Rubles within payment systems, with the BRPS approximately 84 percent and others accounting for the remaining.

35. **All funds transfers are settled on a gross basis in real-time based on the availability of funds in the participants account.** In the event of inadequate balances, the transactions are queued. Participants have the ability to revoke such orders and re-initiate them. Transactions pending in the queue at the end of the operating hours are cancelled. The NSD-PS does not incur any credit or liquidity risks in its settlement operations as it does not provide any liquidity support (intraday/overnight or guarantee fund) to the participants.

36. **The NSD has an operational risk management framework at its Supervisory Board level comprising its activities as a payments system, central securities depository and a trade repository.** The operational risk management framework comprises the use of a secondary site and a business continuity plan and IT and physical security. Given its systemic importance, the National Settlement Depository (NSD) should test the adequacy of its revised business continuity plan to ensure that end-of-day settlement is completed under all adverse scenarios.

37. **The NSD also has a general business risk management framework at the group level and holds liquid assets in the form of a reserve fund to take care of general business risk.** The reserve fund balances are adequate to take care of a minimum of six months of operating expenses as outlined in Principle 15 of the PFMI, in respect of each of its activities as a payment system, central securities depository and a trade repository.

38. **The NSD also has a recovery plan which has been approved by the Supervisory Board of the NSD in April 2015.**

39. **NSD should clearly establish by obtaining expert legal opinion that its interests and the interests of its participants are fully protected in all cases where it as an investor CSD in the CSDs of the neighbouring countries.** Link related risks should be made part of the overall risk management framework of the NSD, if not already done so.

National Clearing Centre

40. **NCC's functions as a CCP, clearing house, securities market participant and as a bank under the extant legal framework.** It functions as a clearing house and as a central counterparty in foreign exchange (FX), securities, exchange-traded derivatives and commodities in all markets of Moscow Exchange Group, including the Moscow Energy Exchange market. Having a banking status enables NCC to access CBR's refinancing operations as well as access the inter-bank markets, for its liquidity needs if any. NCC has been designated as a systemically important CCP by the CBR and has been classified as a Qualified CCP by the CBR.

41. **NCC's governance structure consists of a Supervisory Board and a Management Board.** The role of the Supervisory Board amongst other things relate to the appointment of the Management Board and approval of the risk management policies of NCC, prepared by the Risk Department. The Supervisory Board has two committees – one of which is the Risk Committee. The Risk Committee includes Supervisory Board members, representatives of CBR, self-regulatory organizations and Clearing Members (who mandatorily account for half of the Committee's membership). It is however, not clear as to whether the Risk Committee is chaired by a sufficiently knowledgeable individual independent of the NCC's FMI's executive management and whether the majority of members of the Committee could be considered as non-executive members.

42. **NCC has refined its risk management procedures by implementing the default waterfall approach including minimum requirements of its own capital (skin-in-the-game) in the default waterfall.** The default waterfall approach applies the concept of mutualisation of losses to take care of participant default. NCC has also introduced stress collateral⁵, which is a part of the default waterfall approach.

43. **NCC collects initial and variation margins in all market segments.** The margin models take into account price volatility, the type of product, liquidity, potential losses on account of default etc. Participants have to fulfill their margin requirements according to the timelines prescribed by NCC, failing which NCC can declare it as a default and can close out the position of the defaulting CM. Variation margin, however, is not collected for trades settling on a T+0 basis. Further, its margin methodology developed internally is not reviewed and validated by a qualified and independent expert.

44. **NCC accepts collateral based on criteria such as: inclusion in the stock index, Lombard List of CBR, international ratings, and financial condition of the issuers to reflect regulatory requirements for low liquidity, credit and market risks.** However, with respect to the derivatives market, NCC accepts shares issued by the CM or by its affiliated parties as collateral. This exposes NCC to specific wrong way risk, as it is likely that the

⁵ Stress collateral is a variable contribution which is proportionate to the NCC's exposure to the CM. It is designed to cover losses in case of market stress and a clearing member's default, before fixed contributions of non-defaulting clearing members to the guarantee fund are used.

collateral would lose value in the event that the CM providing the collateral defaults, notwithstanding conservative haircuts and limits being applied.

Oversight

45. **CBR is the sole regulator of the national payment system and the other financial market infrastructures such as central counterparties and central securities depositories in Russia.** Supervision is defined in the NPS law as a CBR activity for monitoring the compliance of the NPS entities (funds transfer operators that are credit institutions, payment system operators, and payment infrastructure service providers) with the requirements of the NPS law, and relevant CBR regulations. In its supervisory role, the CBR can obtain data and information on the rules and operations of the systems; can conduct on-site inspections; and has the power to apply sanctions. Oversight on the other hand has a softer touch with CBR playing the role of a catalyst. Oversight activities consist of monitoring; assessment; and making recommendations for initiating change. The NPS law allow CBR to cooperate with domestic and cross-border regulators in conducting supervision and oversight of the NPS

46. **Systemically important payment systems, socially important payment systems and CCPs and CSDs are subject to supervision and regulation.** CBR has explicitly adopted the PFMI in its regulatory framework for all financial market infrastructures including systemically important payment systems. In accordance with the relevant CBR regulation in this regard, the entities - the BRPS, NSD (as a CSD, settlement depository and payment system) and the NCC have undertaken self-assessment and published the Disclosure Framework on their respective websites. In the case of socially important payment systems a sub-set of the PFMI are used by the CBR to assess the safety and efficiency of such systems (the «Golden Crown» payment system has published the disclosure framework on its website). Other entities such as e-money operators are subject to oversight.

47. **Given the nature of interdependencies and interconnectedness of the FMIs, the CBR may adopt a holistic oversight approach to ensure the safety and efficiency of the FMIs in Russia.** CBR may examine how best to utilise the existing structures such as the Coordination Committee set up for Moscow Stock Exchange Companies and the CBR Consulting Board for payment system issues be tasked for developing this holistic approach. While the Coordination Committee deals with NSD and NCC issues, it does not deal with matters pertaining to BRPS. Similarly, the Consulting Board is devoted to payment system issues, and is not clear whether issues pertaining to NSD's activities as a depository and NCC matters are part of its agenda. Currently, the National Payment Systems Department (NPSD) of the CBR is responsible for the regulation, supervision and oversight of the National Payment System, for ex., in the case the two systemically important payment systems – the regulation and oversight of the BRPS and regulation, supervision and oversight of the NSD-PS. In the case of the other two FMIs (NSD-CSD and NCC), they are overseen and supervised by the Securities and Commodities Market Department and the Banking Supervision Department.

48. **The NPSD is also the operator of the BRPS system (apart from being the overseer).** While the operations and oversight functions are kept distinct and are organised

into separate divisions in the NPSD, both divisions report to the Director of the NPSD. There does not appear to be an independent reporting line for the Oversight division in addition to its regular reporting line, which is considered to be an international best practice. Notwithstanding this, it is noted that the assessment of the BRPS is carried out by a Working Group of the CBR comprising the relevant departments.

49. **The CBR should determine whether any e-money operators with a substantial market share and a large client base, should be denoted as socially or important payment systems, to bring them under the ambit of its supervision.** The policy measure would enable the CBR to assess the safety and efficiency of such systems by subjecting them to adhere to a sub-set of the PFMIs, as is done by CBR in the case of socially important payment systems. Such a move would also infuse greater public confidence and could positively contribute to greater use of e-wallets. Other e-money operators would continue to be subject to oversight as hitherto.

Table 1: Recommended actions

Pillar	Recommendation	Priority and timeline
1. Legal framework	It is desirable that CBR undertakes a comprehensive review and harmonizes the relevant provisions in the existing framework legislation (through amendments where necessary), in order to provide for a higher degree of legal certainty for certain material aspects of the legal basis of the national payment system. For example, it is not very clear as to whether the provisions in the Insolvency law could override provisions related to settlement finality and insolvency remoteness of collateral enumerated in the other laws.	High priority/ Long term
2. Payment systems - BRPS	As an additional tool for risk management, it is recommended that CBR explore the possibility of developing the capability to call for additional collateral on the day of enforcement of the collateral.	High priority / Medium term
2. Payment systems - BRPS	To further strengthen the business continuity plans, the systems of participants should also be regularly involved in the testing of the business continuity plans, along with other linked FMIs and critical service providers. The impact of relocation of staff on adhering to the recovery time objective of 2 hours of resuming operations from the secondary site may be studied and appropriate staffing arrangements may be carried out as stated in Principle 17 of the PFMIs.	High priority / Short term
2. Payment systems - Socially important payment systems	Interoperability amongst the socially important payment systems should be encouraged by CBR to enable wider reach and coverage of the payment systems in providing cashless payments. This could contribute to the reduction in the use of cash in the economy.	High priority / Medium term

2. Payment systems - e-money operators	There is a need for stronger regulations on protecting client funds held in separate accounts by e-money operators from the potential bankruptcy of the e-money operator. The client funds in the separate accounts should be protected against seizure for fulfilling other creditor claims.	High priority / Medium term
2. Payment systems - e-money operators	It is understood that some e-money operators have entered into bilateral agreements to enable interoperability of their e-money schemes. While this is noteworthy, such efforts should be replicated on an industry-wide basis, to promote the greater usage of e-money.	Medium priority / Medium term
2. Payment systems - Retail	Concerted efforts are required for increasing the use of non-cash retail payments and reducing the use of cash, which would simultaneously aid financial inclusion efforts, through the formulation of a comprehensive national strategy with defined timelines for achieving the identified targets. The strategy should be formulated by CBR in coordination with all relevant stakeholders such as the FMIs, the Government (MOF), payment system operators including MTOs, e-money operators and their representative bodies. The CBR Consulting Board on the national payment system improvement issues chaired by the CBR Governor should be used for this purpose.	High priority / Medium term
2. Payment systems - Retail	The comprehensive national strategy, could illustratively focus on measures such as: (i) facilitating transaction accounts for all citizens, with greater usage of (debit and credit) cards; (ii) promoting online payments through the internet and mobile with adequate security measures; (iii) deepening the PoS infrastructure; (iv) rationalize the fee structure for non-cash payment modes; (v) leveraging the existing payment infrastructure to promote retail electronic payment products; (vi) increasing the usage of e-money wallets; (vii) channelizing remittance proceeds into transaction accounts; (viii) enabling acceptance of payments through cards and e-wallets in addition to cash at payment terminals; and (ix) facilitating greater usage of the payment system infrastructure for both government payments and receipts to further reduce usage of cash.	High priority / Medium term

3. Systems for post-trade clearing and settlement - NSD	NSD should test the adequacy of its revised business continuity plan to ensure that end-of-day settlement is completed under all adverse scenarios.	High priority/Short term
3. Systems for post-trade clearing and settlement -NSD	NSD should clearly establish by obtaining expert legal opinion that its interests and the interests of its participants are fully protected in all cases where it as an investor CSD in the CSDs of the neighbouring countries. Link related risks should be made part of the overall risk management framework of the NSD, if not already done so.	High priority / Short term
3. Systems for post-trade clearing and settlement -NCC	Variation margin should be collected for trades settling on a T+0 basis. In addition, the margin methodology developed internally should be reviewed and validated by a qualified and independent expert at least annually.	High priority / Short term
3. Systems for post-trade clearing and settlement -NCC	NCC should stop accepting shares issued by the CM or by its affiliated parties as collateral in the derivatives segment to eliminate wrong way risk, as it is likely that the collateral would lose value in the event that the CM providing the collateral defaults, notwithstanding conservative haircuts and limits being applied.	High priority / Short term
4. Oversight	A holistic approach to the oversight of the FMIs should be adopted by the CBR, given the nature of interdependencies and interconnectedness of the FMIs. CBR may examine how best to utilise the existing structures such as the Coordination Committee set up for Moscow Stock Exchange Companies and the CBR Consulting Board for payment system issues could be tasked for developing this holistic approach.	High priority / Short term
4. Oversight	The CBR should determine whether any e-money operators with a substantial market share and a large client base, should be denoted as socially or important payment systems, to bring them under the ambit of its supervision. The policy measure would enable the CBR to assess the safety and efficiency of such systems by subjecting them to adhere to a sub-set of the PFMIs, as is done by CBR in the case of socially important payment systems. Such a move would also infuse greater public confidence and could positively contribute to greater use of e-wallets. Other e-money operators would continue to be subject to oversight as hitherto.	Medium priority / Medium term

II. INTRODUCTION

50. **Financial infrastructure is the underlying foundation of a country's financial system.** It comprises all institutions, the rules, and standards of all the systems which enable financial intermediation. The quality of a country's financial infrastructure determines the efficiency of intermediation, the ability of lenders to evaluate risk and of borrowers to obtain credit, insurance, and other financial products at competitive terms. For instance, the efficient and smooth functioning of the payment, and securities settlement systems facilitates the discharge of financial obligations and the safe transfer of funds across distances and institutions and retail customers, supporting the stability of the financial system.

51. **This technical note contains the assessment of the national payment and settlement systems (NPS) infrastructure in Russia using the framework of international standards⁶ and the experience and previous work of the World Bank on payment systems development⁷ in several countries around the world.** The assessment was undertaken in the context of the IMF and World Bank (WB) joint Financial Sector Assessment Program (FSAP) mission to Russia during March 15-30, 2016. The assessor was Gynedi Srinivas of the World Bank's Payment Systems Development Group. The assessor would like to thank the counterparts in Russia for their excellent cooperation and hospitality during the mission.

52. **The technical note assesses the NPS infrastructure in Russia under four broad themes.** These are: (i) Legal and regulatory framework; (ii) Payment system landscape; (iii) Systems for post-trade clearing and settlement - Central Securities Depository and settlement depository and Central counterparty; and (iv) Oversight. It does not provide a detailed assessment of individual payment and settlement systems in the form of a Report on Observance of Standards and Codes (ROSC).

53. **The information used in the assessment includes relevant national laws, regulations, rules and procedures governing the systems and other available material.** Other available material included the responses to the WB mission questionnaires; websites of the various stakeholders and other relevant documents. In addition, discussions were held with regulators i.e. the Central Bank of Russia (CBR), and various stakeholders including the National Settlement Depository (NSD), National Clearing Centre (NCC), National System of Payment Cards (NSPC), Ministry of Finance (MoF), Golden Crown payment systems, Sberbank payment system, Yandex–Money e-money operator, and National Payment Council Association.

⁶ *Principles for financial market infrastructures*, CPSS-IOSCO, BIS, April, 2012

<http://www.bis.org/cpmi/publ/d101a.pdf> The Committee on Payment and Settlement Systems (CPSS), has been renamed as Committee on Payments and Market Infrastructures (CPMI) in September, 2014.

⁷ The lessons learned during more than a decade of World Bank Group technical assistance, along with the research findings of other international and national agencies, have been merged into a comprehensive package for the development and reform of the national retail payments system. Available at: <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTFINANCIALSECTOR/0,,contentMDK:23252983~pagePK:210058~piPK:210062~theSitePK:282885,00.html>

III. PAYMENT AND SETTLEMENT SYSTEMS

A. Legal and regulatory framework

54. **The existing framework legislation in Russia providing the legal basis for payments and settlement systems including securities settlement is spread over several legal statutes.** These include: Federal Law No.86-FZ July 10, 2002 On the Central Bank of the Russian Federation (CBR law); Federal Law No. 161-FZ of June 27, 2011, On the National Payment System (NPS law) and subsequent amendments; Federal Law No. 414-FZ of December 7, 2011 On the Central Depository (CD law); Federal Law No. 39 –FZ of April 22, 1996 On the Securities Market (Securities law); Federal Law No. 7-FZ of February 7, 2011 On Clearing, Clearing Activities and Central Counterparty; Federal Law No. 127-FZ of October 26, 2002 On Insolvency (Bankruptcy); Civil Code of the Russian Federation Parts One to Four. These laws are supplemented by CBR regulations, directions and letters/methodological recommendations. The CBR instructions, regulations and directions are regulatory in nature and are registered with the Ministry of Justice, while the letters/methodological recommendations are recommendatory in nature and provide additional clarifications to market participants on CBR regulatory documents.

55. **Article 3 of the CBR law states that one of the purposes of the CBR is to “ensure stability of and develop the national payment system”, while Article 4 empowers CBR to exercise supervision and oversight function over the national payment system.** Chapter XII (introduced by Federal Law No. 162-FZ, dated June 27, 2011) containing Articles 82 (1 to 5) spell out the CBR’s commitment to ensure the stability and development of the NPS in Russia and also operate the CBR’s payment system and ensure its uninterrupted functioning. Chapter XII reiterates CBR’s oversight powers and enables CBR to impose a penalty on payment operators in the event of unilateral suspension of services by such operators. Article 13, clauses 15 and 16 enable the National Financial Board of the CBR to provide consent to the appointment of a one-man executive body of the operator of the national payment cards system; and consider the strategy and provide recommendations for the development of the national payment cards system (was introduced by Federal Law No. 112-FZ, dated May 5, 2014).

56. **The NPS law provides the overall legal and organizational framework for the national payment system in Russia.** It contains procedures for payment services including funds transfers and electronic payments; outlines the activities of national payment system entities; defines the organizational and operating requirements for payment systems, and empowers CBR to adopt regulations for conducting supervision and oversight over the national payment system.

57. **The law amongst others, defines the national payment system,** funds transfer operators, electronic money operators (as funds transfer operators that transfer e-money without opening a bank account); bank payment agents and sub-agents; payment system operators; payment infrastructure service providers (operational centre; payments clearing centre; settlement centre); payment system including a systemically important payment system and a socially important payment system; electronic money, etc. Article 5 of the NPS law

provides for finality, irrevocability and unconditionality of funds transfers in general, with Article 7 (which while defining electronic money transfers) also applies these concepts to electronic money transfers. Direct debits are covered in Article 6. Graded Know-your-customer (KYC) requirements are laid down in Article 10 for e-money transfers in accordance with the relevant law on money laundering and terrorist financing.

58. Chapter 3 of the NPS law describes the national payment system entities and provides a profile of the activities that can be undertaken by them. National payment system entities include: (i) funds transfer operators (FTOs – CBR and credit institutions); (ii) electronic money operators (EMOs - a credit institution including a non-bank credit institution that is authorized to transfer funds without opening bank accounts); (iii) payment system operator which lay down the rules of the payment system including risk management and their adherence to by participants); (iv) payment infrastructure service provider (operational centers (ensures the exchange of electronic messages between payment system participants, payment system participants and their clients, the payment clearing centre, and the settlement centre; and between the payment clearing centre and the settlement centre); payment clearing centre (which conducts payment clearing activity could also be a payment clearing central counterparty; CBR and credit institutions can be payment clearing central counterparty); settlement centre (provides settlement services by debiting and crediting payment system participants accounts); and engagement of bank payment agents/sub-agents (legal entities or individual entrepreneurs, which can be involved in the provision of a range of payment services).

59. The organizational and operational requirements including the areas that have to be covered in the rules of the payment system are outlined in the NPS law. These include amongst other things risk management parameters and access criteria for direct and indirect participation. The considerations for classifying a payment system as systemically important payment system and a socially important payment system are also laid down. In the case of systemically important payment systems, specific risk management standards are prescribed. Additionally, in the case of a net settlement system, the system must ensure the settlement of the participant with the largest obligation. The NPS law also provides for the creation of a guarantee fund mechanism, and provides for bankruptcy remoteness of the balances in the guarantee fund. The supervisory and oversight⁸ objectives and the powers of the CBR to exercise them are also outlined in the NPS law.

60. Material legal aspects such as settlement finality, netting, collateral arrangements and protection of collateral from bankruptcy, default procedures and immobilization and dematerialisation of securities are covered in the framework legislation comprising the NPS law, CD law, Securities law, Clearing and Clearing activities law, Civil Code, and Insolvency law. These provisions are further supplemented by CBR regulations. While this being so, it is not very clear as to whether the provisions in the Insolvency law for example would override provisions related to settlement finality and insolvency remoteness of collateral enumerated in the other laws. Additionally, while novation has been defined in the Civil Code, open offer

⁸ These are discussed in greater detail in the section on Oversight.

(used by the central counterparty – the National Clearing Center) has not been defined in any of the laws.

61. In line with international best practices, it is understood that CBR is engaged in an exercise to amend the relevant laws to introduce provisions related to the resolution of financial market infrastructures.

Recommendations

62. It is desirable that CBR undertakes a comprehensive review and harmonizes the relevant provisions in the existing framework legislation (through amendments where necessary), in order to provide a higher degree of legal certainty for certain material aspects of the legal basis of the national payment system. For example, it is not very clear as to whether the provisions in the Insolvency law could override provisions related to settlement finality and insolvency remoteness of collateral enumerated in the other laws. (*High priority/ Long term*).

B. Payment system landscape

63. The payment system landscape in Russia includes systemically important payment systems, socially important payment systems, other payment systems which are not systemically and socially important, e-money operators, a centralised switch for domestic transactions with international cards under the National System of Payment Cards (NSPC), and a domestic payment card scheme, under the brand name “MIR”. The criteria for defining a system as a systemically important or a socially important payment system are established under the relevant regulations of the CBR. The criteria for recognizing a system as a systemically important payment system are: (i) execution of funds transfers to a total of 15 trillion rubles and of individual transfers to the amount of 100 million rubles for three consecutive calendar months; (ii) making funds transfers by the Bank of Russia for bank refinancing and conduct of operations in the open market; (iii) execution of funds transfers on transactions made on on-floor trades. The criteria for classifying a system as a socially important payment system are: (i) execution of funds transfers to a total of no less than 1 trillion rubles for three consecutive calendar months with more than half of such transfers exceeding the amount of 100,000 rubles; (ii) execution of no less than 500 million funds transfers using payment cards during the calendar year; (iii) execution of no less than 13 million funds transfers without opening a bank account during the calendar year; and (iv) execution of no less than 2 million funds transfers by individuals using their bank accounts during the calendar year (excluding funds transfers involving payment cards).

C. Systemically important payment systems (SIPS)

64. **The Bank of Russia Payment System (BRPS) which is owned and operated by the CBR, and the National Settlement Depository payment system (NSD-PS)⁹, are the two systemically important payment systems in Russia.**

Bank of Russia Payment System (BRPS)

65. **The BRPS system has three components - the system for intraregional electronic payments (VER), the system for interregional electronic payments (MER), and the Banking Electronic Speedy Payment system (BESP system).** The BRPS is used for the settlement of both large-value and small-value payments. There is no value limit placed on individual payments. Payments are settled on a gross basis in the VER and MER systems, while the BESP system operationalised in late 2007, and provides nationwide settlement on a real-time gross settlement (RTGS) basis for both urgent interbank payments and other non-urgent payments of non-bank institutions. Liquidity saving mechanisms are provided in VER and BESP systems

66. **The participants in the BRPS include CBR's branches, credit institutions (and their branches), the Federal Treasury (and its regional offices) and other CBR customers such as state bodies and local self-governing bodies, state extra-budgetary funds etc.** Participants need to have correspondent account with CBR branches for effecting payments. Participants in the BRPS identified through a Bank identification Code (BIC), with the BIC Directory being maintained by the CBR and the account number with CBR.

67. **The BRPS operating schedules are different for BESP and regional VER subsystems.** The BESP system operating hours are 07.00 to 21.00 hours Moscow time. During this time the urgent payments from all over the country are received and processed by BESP. The VER subsystems operating hours are established by the respective CBR regional branches. The operating hours are set in local time, taking into account the existence of eleven time zones in Russia. It is obligatory to start the operating hours not earlier than 7:00 local time but not later than 7:00 Moscow time. The acquisition of payments instructions to be settled in VER, MER systems can be closed not earlier 13:00 by local time and also not earlier 17:00 Moscow time (21:00 for the Moscow region) but the processing of payment instructions electronically received is performed until 21:00 Moscow time in all subsystems.

68. **The volume and value of payment transactions settled in the BRPS is given in the table below.**

⁹ The NSD-PS is discussed in the section on NSD as it is an entity which carries out multiple activities as a payment system, CSD, settlement depository and a trade repository and has an integrated risk management framework.

Table 2: Volume and value of transactions settled in BRPS

Year	Volume of transactions (millions)			Value of transactions in RUB billions		
	2015	2014	2013	2015	2014	2013
VER	894.8	919.7	934.6	693,036.8	607,716.8	604,349.4
MER	500.5	448.0	404.4	127,837.1	121,909.9	116,334.9
BESP	3.3	2.9	2.1	535,666.9	475,550.9	504,112.9
BRPS -Total	1398.5	1370.6	1341.2	1,356,543.2	1,205,179.9	1,224,893.5

Source: http://www.cbr.ru/Eng/statistics/print.aspx?file=p_sys/sheet001.htm&pid=psrf&sid=ITM_8019

69. **The intraregional VER systems settle payments on a gross basis in batch mode in close to real-time, with several cycles during the operating hours.** The settlement procedure in the case of the Moscow VER (which accounts for a large share of the total value of payments settled in BRPS), is different, as an offsetting mechanism is used several times during the day for settling transactions on a gross basis. Between the offset runs, transactions are also settled on a gross basis in real time. Payment transactions are kept in a queue in the event of lack of balances and are settled as and when funds are available. CBR extends both intraday and overnight credit facilities for participants on a collateralised basis, based on limits. Pending transactions are cancelled at the end of the day and the sender is notified of the same.

70. **Payment transfers between the different VER systems are done through the MER system.** Payment processing in the MER system is done by (i) debiting the sender's account in the originating VER system; (ii) transferring the payment to the destination/receiving VER system; and (iii) crediting the beneficiary's account in the receiving/destination VER system. All payments are settled intraday on a gross basis. Only in cases where the sending and destination VERs operate in different time zones, the funds can be credited on a T+1 basis.

71. **CBR has a fee structure, which incentivizes participants to send their payment transfers early in the day.** As the operating day is divided into 3 distinct time periods, participants pay lowest transaction fees apply to transactions which are sent to the VER and MER systems, during the first operating time period, with the transaction fees being higher in the final time period.

72. **The BESP system in operations since 2007, is a national real-time gross settlement system operated centrally at the federal level.** The BESP system is interlinked with the VER and MER systems.

73. **Participants in BESP are classified as special participants; direct participants; and associate participants.** Special participants are CBR branches which have the authority to effect payments in the BESP system. Direct participants have a direct access to the BESP system, effect BESP payments within the allocated liquidity position on their account with CBR and as direct participants are provided with online services to manage their own payment queues by setting priorities, limits and reordering of payment messages, ascertain and alter their liquidity position allocated for BESP payments and settlement data. Associated participants are provided with indirect access to the BESP system, through the regional BRPS

subsystem, effect BESP payments within the whole liquidity amount on their account with CBR. Associated participants receive information regarding their settled transactions in the BESP system and their account balances together with similar information from VER and MER systems.

74. **Liquidity support in the form of intraday and overnight facility is provided to the participants in the BRPS (VER, MER and BESP) by CBR on a collateralised basis under an overall limit.** The eligible collateral includes gold in standard weighted bars, promissory notes and credit claims denominated in Rubles or foreign currency and securities included in Lombard List of the CBR. The Board of Directors of the CBR approves the list of securities acceptable as collateral (Lombard List). Haircuts are decided by Monetary Policy Committee of the CBR. The collateral is marked-to-market on a daily basis. The total amount of liquidity support that can be availed by a participant (intraday and overnight) cannot exceed the overall limit of liquidity support determined by CBR in respect of each participant. Intraday liquidity that is not repaid is converted to an overnight facility at a rate of interest that is higher than the key CBR rate, which has to be repaid the next day. If it is not repaid the next day, the collateral is enforced by the CBR. The CBR does not ask for any additional collateral on the day of enforcement from the participant (in the event of any decline in the value of the collateral) and in such situations could likely be exposed to a residual credit risk. The CBR however, has the right to withdraw funds from all the correspondent accounts of the participant in the case of default

75. **The BESP employs gridlock resolution tools to manage payment queues.** Queue management tools include bilateral and multilateral offset mechanisms, multilateral optimization techniques and cancellation of bilateral limits between participants.

76. **Fees in the BESP system are based on the type of participant access and on the priority (express or regular) assigned to a payment.** Direct participants can execute both regular and express payments and pay a higher fee per transaction, as compared to associate participants who can only send regular payments and pay a lesser fee per transaction. In addition, a scaled discount fee structure based on the volume of payment transfers has been introduced to encourage greater usage of the BESP system.

77. **Operational risk mitigation measures include the use of physical access control measures, IT and cyber security procedures, use of public key encryption technology for message transmission and use of a secondary site for business continuity.** The secondary site is located 100 kilometers away from the primary site and staff are physically relocated to the site in a contingency situation. This could potentially impact the recovery time of the system and may have a bearing on resuming operations within 2 hours as laid down in Principle 17 of the PFMI. Business continuity planning exercises are held at least once a year and more often if there is a need. The participants systems are not tested during the business continuity exercises.

78. **Payment messages are transmitted between the CBR and participants using the CBR electronic settlement transport system (TSER), which is the communication**

network. For all other non-payment messages (confirmations, enquiries), CBR virtual private network (SVK) is used. Standardised message formats as laid down in the Album of Unified Formats for Electronic Banking Messages (UFEBM) are used. The UFEBM is national message formats standard developed by the CBR. Foreign participants can use SWIFT message formats. Converters dedicated to message exchange agreement with specific client are available to convert UFEBM message formats to SWIFT message formats and vice versa.

Recommendations

79. **As an additional tool for risk management, it is recommended that CBR explore the possibility of developing the capability to call for additional collateral on the day of enforcement of the collateral** (*High priority/Medium term*).

80. **To further strengthen the business continuity plans, the systems of participants should also be regularly involved in the testing of the business continuity plans, along with other linked FMIs and critical service providers.** The impact of relocation of staff on adhering to the recovery time objective of 2 hours of resuming operations from the secondary site may be studied and appropriate staffing arrangements may be carried out as stated in Principle 17 of the PFMI (High priority/Short term).

D. Socially important payment systems (SocIPS)

81. **There are six socially important payment systems in Russia as on 30 March 2016:** (i) MasterCard Payment System, (ii) the Visa Payment System, (iii) the CONTACT payment system, (iv) Payment System «Golden Crown», (v) the International Money Transfer payment system LEADER , and (vi) the Sberbank payment system. The mission met with Sberbank payment system and Golden Crown payment system.

82. **The Sberbank payment system is a pure domestic payment system settling transactions in Rubles.** There are 174 participants as of January 1, 2016 (all domestic banks) in the Sberbank payment system. All participants open an account with the Sberbank payment system and have to have the requisite IT infrastructure and adhere to KYC and AML and CFT laws.

83. **The system has the capability to process and settle both credit and debit transfers.** Credit transfers are prevalent, with an approximate daily volume of 1500 transactions. Over the last quarter it is estimated that the volume of transactions was 98,340 corresponding to a value of RUB 9.85 billion (as indicated by Sberbank payment system during the meeting).

84. **All transactions are settled on a gross basis during the operating hours of the system from 9 am to 9.30 pm.** Outstanding transfers at the end of the day are cancelled. The Sberbank payment system settles transactions based on availability of funds in the participants account and does not provide any credit or overdraft facility to the participants. Business continuity plan is tested once a year and it has 3 operating centers, enabling it to switch operations from one center to another in case of need.

85. **Participants are domestic banks, which can only send and receive funds transfers with other participants of the Sberbank payments system.** Participants can send and receive funds transfers using SWIFT message formats, and the Album of Unified message formats. There is no interoperability with other payment systems.

86. **Sberbank payment system was assessed by CBR using a sub-set of 13 principles from the PFMI, which do not include the credit and liquidity risk principles.** The reason for not including credit and liquidity risk principles is that the CBR treats the socially important payment systems (such as Sberbank payment system) as being equivalent to “prominently important payment systems”, as classified by the European Central Bank¹⁰, which do not pose any serious risk to financial stability. Sberbank payment system was found to be in full compliance with 3 principles, largely compliant with 9 principles, with one principle being non applicable.

87. **The operator of the Golden Crown payment system was registered by the CBR pursuant to the enactment of the NPS law.** The Golden Crown payment system issues cards (debit, credit and prepaid) and also provides domestic and cross-border money remittance services. Its geographic span of operations include Russia and neighboring CIS countries.

88. **Participants in the system (as of January 1, 2016) are 456 banks of which 96 are foreign banks and the rest are Russian banks.** Participants have to open an account with the system, and comply with various system rules including IT requirements and should have been duly licensed by the regulator. Participants can open accounts in both Rubles and permitted foreign currencies in the system. Participants have to maintain a minimum balance in their accounts at all points of time, which is monitored by the Golden Crown payment system and participants have to replenish/top-up the minimum balance as indicated by the system.

89. **Within the Golden Crown payment system, settlement runs may take place every one hour. As part of the risk management framework, rules call for settlement by the end-of-the-day, with interbank settlement limits in place.** The settlement limits are determined based on the available balances in the correspondent account of each individual participant. Transactions which exceed the balances are not accepted for settlement and a notification to this effect is sent to the sending participant. This mitigates any credit risk and obviates the need for any guarantee fund mechanism.

90. **Within the Golden Crown payment system debit cards are issued.** These were initially proprietary cards but have since been co-branded. Around 100 Russian banks are participants in the Golden Crown card scheme. The debit cards can be used at ATMs and PoS machines.

¹⁰ *Revised oversight framework for retail payment systems*, February 2016, European Central Bank
<https://www.ecb.europa.eu/pub/pdf/other/revisedoversightframeworkretailpaymentsystems201602.en.pdf?bc332d9a718f5336b68bb904a68d29b0>

91. **The CBR also assessed the Golden Crown payment system** adopting the same methodological approach of using a sub-set of 13 principles from the PFMI (as in the case of the Sberbank payment system), in line with its oversight approach towards socially important payment systems.

Recommendations

92. **Interoperability amongst the socially important payment systems should be encouraged by CBR to enable wider reach and coverage of the payment systems in providing cashless payments.** This could contribute to the reduction in the use of cash in the economy (*High priority/Medium term*).

E. E-money operators

93. **Electronic money (e-money) is defined under the NPS law as** “monetary funds provided in advance by one party (funds provider) to another party, which records information on the amount of funds provided without opening a bank account (obligor) for the performance of monetary obligations of the funds provider to third parties, the funds provider is entitled to send instructions exclusively using electronic means of payment”. An e-money operator is defined as a funds transfer operator that transfers e-money without opening a bank account under the NPS law. All e-money operators are licensed as banks or non-bank credit organisations (NBCOs) under the banking legislation. Currently, there are 102 e-money operators registered with the CBR, under the NPS law. Some of the prominent e-money operators in the Russian market are Yandex Money and QIWI.

94. **Usage of e-money in Russia is growing.** From a volume of 594.7 million e-money transactions in 2013, the volume of e-money transactions grew to 1100.6 million in 2014 and to 1187.8 million in 2015. In terms of value a similar trend is observed, with the value of e-money transactions higher in 2014 and 2015 as compared to 2013. The value of e-money transactions grew from RUB 661.5 billion in 2013, to RUB 1,109.4 billion in 2014. The value of e-money transactions in 2015 was however lower at RUB 909.7 billion.

95. **There are graded KYC requirements in place for issuance of e-money payment instruments, under the NPS law.** These are classified as: (i) non-personalized electronic means of payment; (ii) personalized electronic means of payment; and (iii) corporate electronic means of payment. Under the non-personalized electronic means of payment (without identification), an individual client may use e-money, provided the e-money balance does not exceed 15,000 rubles at any time and the total amount of e-money transferred does not exceed 40,000 rubles during a calendar month. Under the non-personalized electronic means of payment (with simplified identification), an individual client may use e-money to pay for goods and services of legal entities and individual entrepreneurs, provided the e-money balance does not exceed 60,000 rubles at any time and the total amount of e-money transferred does not exceed 200,000 rubles during a calendar month. Personalized electronic means of payment, where the e-money balance does not exceed 600,000 rubles at any time, is possible for individual clients, whose identification is carried out by the e-money operator. A corporate

electronic means of payment can be used by a client who is a legal entity or an individual entrepreneur and whose identity has been verified by the e-money operator. The e-money balance in this case should not exceed 600,000 rubles.

96. **E-money can be uploaded to the e-wallet (either a physical card or a virtual instrument), through various means and can also be used for a variety of services in Russia.** E-money can be uploaded via, cash pay-in at kiosks, through cards, online banking, ATMs and payment terminals. E-money can be used for payment of utility bills, person-to-person transfers, for e-commerce, payment of fines and payment of taxes. E-wallets can also be linked to plastic cards so that they can also be used in the physical world for paying at merchants or transacting at ATMs.

Recommendations

97. **There is a need for stronger regulations on protecting client funds held in separate accounts by e-money operators from the potential bankruptcy of the e-money operator.** The client funds in the separate accounts should be protected against seizure for fulfilling other creditor claims (*High priority/Short term*).

98. **It is understood that some e-money operators have entered into bilateral agreements to enable interoperability of their e-money schemes.** While this is noteworthy, such efforts should be replicated on an industry-wide basis, to promote the greater usage of e-money (*Medium priority/Medium term*).

F. Retail payments including Government payments and Remittances

99. **Cash is one of the major payment means used for retail payments in the Russian Federation.** The total amount of currency in circulation at the end of January 2016¹¹ was RUB 8,058.7 billion out of a monetary base of RUB 10,565.1 billion, constituting 76 percent of the monetary base in Russia. Credit transfers, direct debits, payment cards and e-money are the non-cash retail payment instruments used in Russia. Amongst these, payment cards are by far the most popular mode of non-cash retail payment instrument, though the value transacted with credit transfers is higher compared to that with the payment cards. The details are provided in the table below.

¹¹ Source: <http://www.cbr.ru/eng/statistics/?PrtId=mb&pid=dkfs&sid=dbvo>

Table 3: Usage of non-cash retail payment instruments: volume and value of transactions

Payment instrument	2014		2015	
	Volume (millions)	Value (RUB billions)	Volume (millions)	Value (RUB billions)
Credit transfers	2,647.4	524,362.0	2,565.7	521,503.4
Direct debits	84.6	1,843.0	77.4	1,933.0
Payment cards [#]	9,763.0	34,999.6	12,823.9	40,513.7
E-money	1,100.6	1,109.4	1,187.8	909.7

Transactions carried out in Russia by cards issued by Russian credit organisations

Source: http://www.cbr.ru/Eng/statistics/print.aspx?file=p_sys/sheet001.htm&pid=psrf&sid=ITM_8019

100. **Banks issue internationally branded cards – both debit and credit cards.** The number of debit cards is far higher compared to credit cards in Russia (please see table below). In addition to internationally branded cards, a domestic national debit card under the brand name “MIR” has been launched in December, 2015 by the National System of Payment Cards (NSPC – a fully owned subsidiary of the CBR). All domestic transactions with international cards are processed and cleared domestically, through a centralized switch owned and operated by the NSPC, with the interbank settlement happening in central bank money.

Table 4: Number of debit and credit cards

Year	Number of debit cards (millions)	Number of credit cards (millions)	Total (millions)
2014	195.9	31.8	227.7
2015	214.4	29.5	243.9

Source: http://www.cbr.ru/Eng/statistics/print.aspx?file=p_sys/sheet001.htm&pid=psrf&sid=ITM_8019

101. **The use of cards for cash withdrawals is higher as compared to the use of cards for cashless transactions such as the payments for goods and services.** However, the value of cash withdrawals in 2015 registered a marginal increase, while the value of cashless transactions showed a healthy rise in 2015, compared to 2014. The details of transactions using cards issued by Russian credit organisations within Russia are given in the following table.

Table 5: Volume and value of transactions using cards

Type of transaction	Volume of transactions (millions)		Value of transactions (RUB billions)	
	2015	2014	2015	2014
Cash withdrawals	3,298.7	3,275.4	24,916.8	23,826.1
Cashless transactions	9,525.2	6,487.6	15,596.9	11,173.4
- of which payments for goods and services	8,758.7	6,042.8	8,846.7	6,857.8
Total	12,823.9	9,763.0	40,513.7	34,999.6

Source: http://www.cbr.ru/Eng/statistics/print.aspx?file=p_sys/sheet001.htm&pid=psrf&sid=ITM_8019

102. **ATMs and PoS terminals are interoperable in Russia.** At the end of 2015, there were 207,400 ATMs as compared to 1,489,900 PoS terminals in the country. In addition, Russia has payment terminals/agents¹² which accept cash (but not cards) for fulfilling various payment needs of the public such as mobile airtime top-ups; payment of utility bills etc. obviating the need for the public to visit branches/offices to make payments. Banks also engage bank payment agents who provide a variety of services. Banks also provide internet and mobile banking applications to their customers.

Government payments

103. **The Federal Treasury in Russia is a major user of the BRPS and has accounts with the CBR and credit institutions.** In 2013¹³, the Federal Treasury and its regional branches executed 195.5 million payments, which accounted for 13.9 percent of the total volume of operations executed through the BRPS, for a value of RUB 74.6 trillion accounting for 10 percent of the total value of transactions in the BRPS (data for subsequent years is not readily available). In discussions with the Federal Treasury officials, it has been gathered that Government salary payments are largely cashless in nature, involving the use of either payment cards or crediting the bank account of the employee. Salaries are paid out in cash only in areas where there are no bank branches. Welfare payments are also largely cashless. Post offices are used in remote areas to pay out pension payments in cash in the absence of bank branches in such areas. Citizens can pay taxes to the Government either through cash, cards, e-wallets or online using their bank accounts or cards or e-money. Government payments to vendors is learnt is also made through cashless means by crediting the payments to the banks accounts of the vendors.

Remittances

104. **Russia has both inward and outward cross-border remittances, with the share of outward remittance flows from Russia outpacing the inward flows Russia.** Both outward and inward remittance flows have exhibited a decline over the last 3 years. The details are given in the table below.

¹² Reliable data on the number of payment terminals and their ownership is not readily available. Payment agents' activities are regulated and controlled by other public authorities and not by the CBR.

¹³ http://www.cbr.ru/eng/psystem/analytical/prs46_e.pdf

Table 6: Remittance flows

		2013 (millions US\$)	2014 (millions US\$)	2015 (millions US dollars)	Average remittan ce size in US\$ in 2015	Net outflow (millions US\$)		
						2013	2014	2015
Outward remittanc es from Russia	Total	58,991	68,878	35,116	220	39,193	49,679	16,542
	To CIS countries	21,726	19,054	11,057				
	To non- CIS countries	37,264	49,825	24,059	206			
Inward remittanc es into Russia	Total	19,798	19,200	18,574	356			
	From CIS countries	4,255	4,668	3,872				
	From non- CIS countries	15,543	14,532	14,702	997			

Source: http://www.cbr.ru/eng/statistics/CrossBorder/C-b_trans_15_e.xlsx
http://www.cbr.ru/eng/statistics/CrossBorder/C-b_rem_15_e.xlsx

105. **The remittance flows (outward and inward) to the CIS countries largely comprise migrant workers remittances.** These remittances are typically made through Money Transfer Operators (MTOs) which are credit organisations licensed under the banking legislation to provide funds transfer services. Being credit institutions such MTOs can also provide accounts to their clients. In the context of inward remittances, channeling such remittances into accounts could serve as a first step in financial inclusion efforts and also aid in promotion of cashless payments. However, data on remittance inflows being credited to accounts is not readily available.

Recommendations

106. **Concerted efforts are required for increasing the use of non-cash retail payments and reducing the use of cash, which would simultaneously aid financial inclusion efforts, through the formulation of a comprehensive national strategy** with defined timelines for achieving the identified targets. The strategy should be formulated by CBR in coordination with all relevant stakeholders such as the FMIs, the Government (MOF), payment system operators including MTOs, e-money operators and their representative bodies. The CBR Consulting Board on the national payment system improvement issues chaired by the CBR Governor should be used for this purpose (*High priority/Medium term*).

107. **The comprehensive national strategy, could illustratively focus on measures such as:**

- i. facilitating transaction accounts for all citizens, with greater usage of (debit and credit) cards;

- ii. promoting online payments through the internet and mobile with adequate security measures;
 - iii. deepening the PoS infrastructure;
 - iv. rationalize the fee structure for non-cash payment modes;
 - v. leveraging the existing payment infrastructure to promote retail electronic payment products;
 - vi. increasing the usage of e-money wallets;
 - vii. channelizing remittance proceeds into transaction accounts;
 - viii. enabling acceptance of payments through cards and e-wallets in addition to cash at payment terminals; and
 - ix. facilitating greater usage of the payment system infrastructure for both government payments and receipts to further reduce usage of cash.
- (High priority/Short term).*

G. Systems for post-trade clearing and settlement

108. The systems for post-trade clearing and settlement in Russia are the National Settlement Depository and the National Clearing Centre.

National Settlement Depository

109. National Settlement Depository (NSD) is a non-bank credit institution that performs various financial market infrastructure functions in the Russian market. NSD is the: central securities depository (CSD); settlement depository (SD); systemically important payment system (SIPS); and a trade repository (TR). It is authorised and licensed to perform all these functions by the CBR (and in some cases by the former regulator Federal Financial Markets Service which authorizations continue to be valid under the extant legal framework). NSD is licensed as a CSD assigned by the order of FFMS dated 06.11.12 No. 12-2761/PZ-I; as a payment system operator by Certificate No. 0014 of Registration of a Payment System Operator dated 26.12.2012, issued by the CBR; as a professional securities market participant by license No. 177-12042-000100 dated 19.02.2009 to conduct depository activities, issued by the CBR; authorized to conduct banking transactions by license No. 3294 dated 26.07.2012 issued by CBR; authorized to undertake clearing activities by license No. 077–00004–000010 dated 20.12.2012 by the CBR; and to act a trade repository as outlined in the Statements issued by the Financial Markets Service of the CBR.

110. The majority shareholder of the NSD is the Moscow Stock Exchange with 99.997 percent of the shareholding with the balance being held by 36 minority shareholders including international central securities depositories (ICSDs). NSD is governed by a Supervisory Board consisting of 15 directors, 4 of whom are independent directors. There are 4 committees of the Supervisory Board including the Audit Committee which is headed by an independent Director. The Audit Committee is responsible for internal control and external audit and risk management systems at NSD.

111. **The Supervisory Board of NSD is responsible for the overall risk management function of NSD.** The Supervisory Board decides on the maximum permissible cumulative risk level for NSD as a whole. NSD risk management is guided by: Regulation on Risk Management; Risk Management Rules for risks associated with central securities depository activities; Business Continuity Policy; and a Risk Management Development Strategy for up to 2020, all of which have been approved by the Supervisory Board. The total operational and performance reliability of all of NSD's information systems and services as a CSD, Settlement depository; SIPS and TR is an important element of the overall risk management strategy. The risk management functions are centralized in the Risk Management Department which along with Internal Control and Internal Audit departments are functionally independent from business units, with sufficient authority, resources and access to the Supervisory Board to discharge their duties effectively.

112. **The NSD has an operational risk management framework at the Supervisory Board level comprising its activities as a payments system, central securities depository and a trade repository.** The operational risk management framework comprises the use of a secondary site and a business continuity plan and IT and physical security. As indicated in the Disclosure Framework¹⁴, the business continuity plan does not provide an option for completing settlements by the end of the day on which the operational disruption occurred. The business continuity plan has since been revised to ensure end-of-day settlement even in the event of a disruption. However, it is not clear whether the revised business continuity plan has been tested and found to be adequate.

113. **The NSD also has a general business risk management framework at the Supervisory Board level and holds liquid assets in the form of a reserve fund to take care of general business risk.** The reserve fund balances are adequate to take care of a minimum of six months of operating expenses as outlined in Principle 15 of the PFMIs, in respect of each of its activities as a payment system, central securities depository and a trade repository.

114. **The NSD also has a recovery plan which has been approved by the Supervisory Board of the NSD in April 2015.**

NSD – CSD and Settlement depository

115. **NSD is the sole CSD for Russian equities, corporate and government bonds, investment units of unit investment funds, mortgage participation certificates, and depository receipts as well as foreign securities through its link arrangements with international central securities depositories (ICSDs) and foreign CSDs.** As a settlement depository, NSD settles trades executed on the Moscow Stock Exchange in both the primary and secondary market segments; OTC trades including OTC repo trades of CBR; and free-of-payment deliveries. For on-exchange trades, the National Clearing Centre acts as the clearing house and the CCP, while for OTC trades NSD acts as the clearing house.

¹⁴ https://www.nsd.ru/common/img/uploaded/files/disclosure/int_docs/ifru_en.pdf

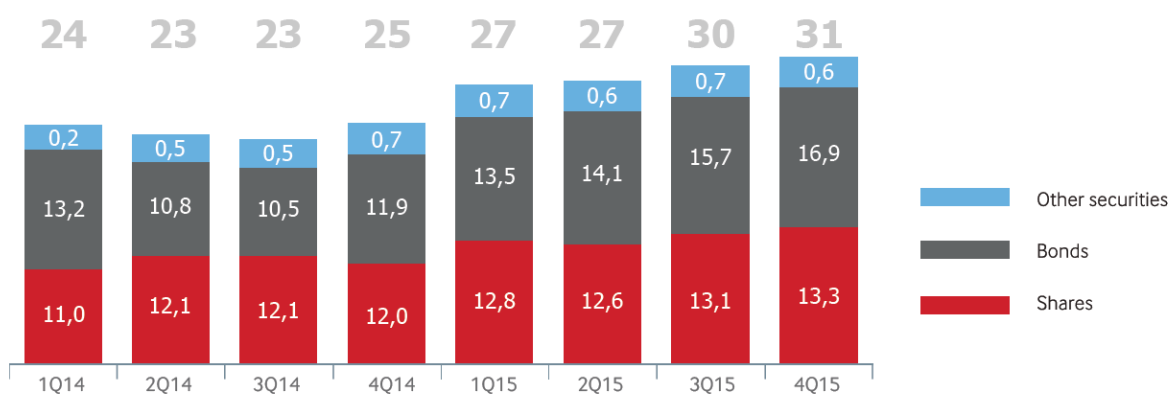
116. **Common participants of the CSD and settlement depository are:** professional participants of the Russian securities market; clearing houses; foreign CSDs and ICSDs; and issuers. Professional participants hold a variety of accounts such as owner's accounts and nominee accounts; clearing houses hold clearing securities accounts; foreign CSDs and ICSDs hold foreign nominee accounts and issuers hold issuer accounts. Beneficial owners of securities hold owner's accounts with the operations on such accounts done by the professional market participants based on beneficial owner's instructions.

117. **The value of assets held under custody increased by 25 percent in 2015 to RUB 31 trillion as compared to RUB 25 trillion in 2014 (please see graphic details below).** The number of securities issues increased from 7,811 to 9,200 reflecting a growth of 17.8 percent in 2015.

Figure 1: Assets held in custody

Value of Securities in Clients' Securities Accounts,

RUB trillion (daily average balances for the last month of the reporting period)



Source: NSD Newsletter (4Q15) https://www.nsd.ru/common/img/newsletter/newsletter_Q4Y2015_en.pdf

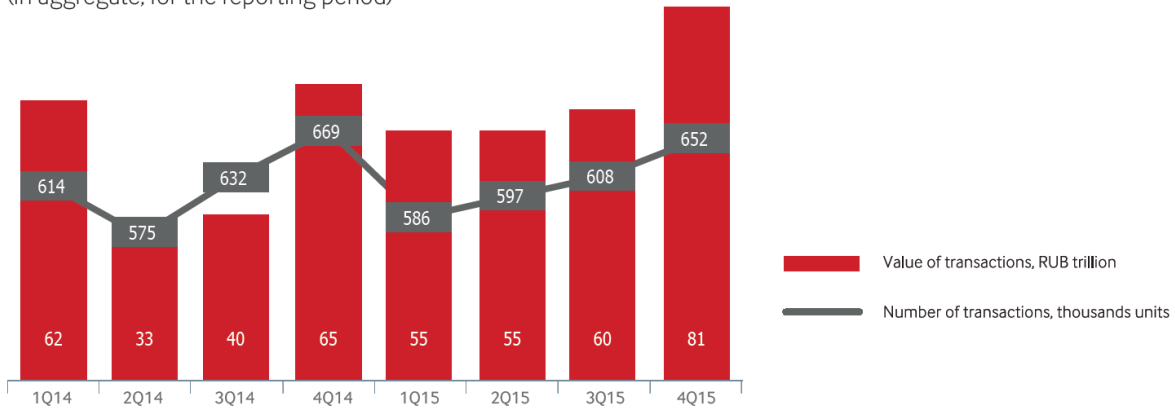
118. **57 percent of the securities held in the CSD are dematerialised, while the remaining 43 percent are immobilised.** A global certificate is issued in respect of immobilised securities and is centrally stored and all transactions including deliveries in respect of immobilised securities take place in book-entry form only, with no physical delivery taking place.

119. **Proprietary assets of participants are segregated from the assets of their clients in the books of the CSD.** NSD's own assets are also segregated from participant's assets. No overdrafts are allowed in any accounts. Daily reconciliation of securities balances in CSD accounts with securities balances in CSD nominee accounts opened to NSD by registrar is undertaken by NSD, irrespective of transaction in the securities accounts. Assets held in custody are protected from custody risk through an integrated insurance policy, which covers events as negligence, misappropriation of assets, fraud, poor management, etc.

120. NSD acts as a settlement depository for settling securities trades carried out over

Value and number of Book-Entry Transfers**

(in aggregate, for the reporting period)



the Moscow Stock Exchange (on-exchange trades) as well as OTC transactions. On-exchange trades are centrally cleared through the National Clearing Centre which acts as the CCP. OTC trades are cleared and settled directly by NSD. While the volume of securities trades decreased in 2015 compared to 2104 (due to a decrease in the volume of OTC transactions), the value of securities settled exhibited an increase. The details are given below.

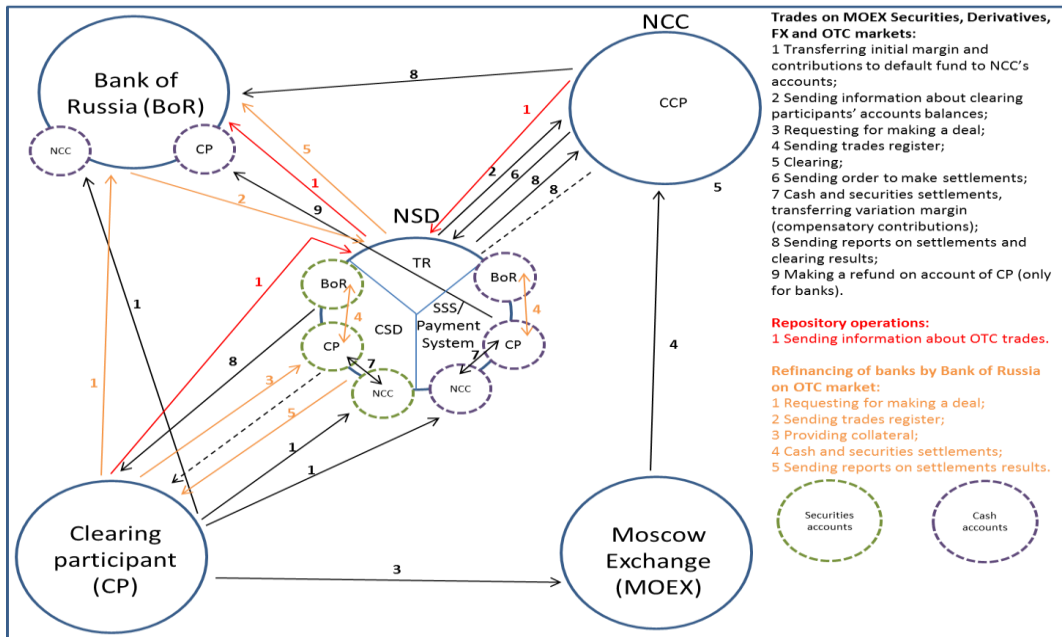
Figure 2: Volume and value of securities transactions (on-exchange and OTC)

** OTC + on-exchange.

Source: NSD Newsletter (4Q15) https://www.nsd.ru/common/img/newsletter/newsletter_Q4Y2015_en.pdf

121. **On-exchange trades are settled on DvP basis. OTC trades are settled both on DvP and FoP basis.** On exchange trades are settled on a T+0 or T+n (the maximum value of “n” being 2 days), while all OTC trades are settled on a T+0 basis. On-exchange trades are settled on DVP 3 basis, while OTC trades can be settled using any of the three DVP models, with DVP 2 model being widely used. The OTC trades include Repo operations done with CBR by banks which involves a basket of securities rather than an individual security. The NSD's collateral management system is used for repo transactions which allows for automatic selection of securities as a collateral, collateral replacement, daily collateral revaluation, margin collection, clearing, and settlement. NSD is not exposed to any credit risk either in the on-exchange or OTC segments, as it settles both securities and funds legs only if there are available balances. In case of FoP settlements NSD does not take any obligations to finalize settlements in the event of a clearing member's bankruptcy. Having a banking status enables NSD to access CBR's refinancing operations for its liquidity needs if any. A schematic representation of the settlement process is given below.

Figure 3: On-exchange and OTC settlement



Source: CBR

122. **There are two clearing and settlement cycles** for the on-exchange trades at 17.00 hours and 19.00 hours. OTC trades have 9 clearing and settlement cycles, with CBR Repo trades having 3 clearing and settlement cycles.

123. **NSD has introduced electronic matching of trades, which has resulted in reduction of trades being rejected on account of missing counterparty trades.** To reduce failed trades, NSD has introduced back-to-back settlement (a form of notional offsetting) which enables settlement of linked transactions between counterparties to be settled. In collaboration with CBR, DVP trades can be settled through the CBR's BESP system, where both the counterparties have a cash account with the CBR or one of the counterparties has a cash account with CBR and the other has a cash account with NSD. In the latter case, NSD's cash account in the BESP system is credited and on receipt of confirmation from the BESP system, the NSD in turns effects the settlement in the cash account of the counterparty which has a cash account with it.

124. **NSD has links with the ICSDs and CSDs in the neighbouring countries.** Its link relationship with the ICSDs and the foreign CSDs can take the form of an investor CSD or an issuer CSD with the ICSDs and the foreign CSDs becoming investor CSDs.

NSD – Payment system (NSD-PS)

125. **The NSD-PS is designated as a systemically important payments system in terms of paragraphs 2 and 3 of Clause 1 of Article 22 of the Federal Law No. 161-FZ (NPS law).** The NSD-PS clears and settles the funds leg of securities transactions carried out over the Moscow Stock Exchange; OTC transactions and CBR open market operations, repo

transactions, and refinance operations to credit institutions. The NSD-PS accounts for approximately 10 percent of the cash transfers value in Rubles, with the BRPS accounting for the remaining.

126. **There are 730 participants in the NSD-PS (as of January 1, 2016) comprising:** 128 credit organizations; 337 credit organizations that are professional securities market participants; and 195 professional securities market participants and 70 participants other than mentioned above. NSD-PS participants open trading and/or clearing accounts in the NSD-PS for settling the funds leg of their trades. The advantage of opening clearing and/or trading accounts, is that the balances in these accounts are bankruptcy remote as laid down in Federal law No.7 On clearing, clearing activities and CCP. The CBR also has an account with the NSD-PS and the NSD-PS also has an account with the BRPS of the CBR. There are no indirect participants in the NSD-PS.

127. **The NSD-PS is a multi-currency settlement system, providing settlement services in Rubles and other select foreign currencies.** All funds transfers are settled on a gross basis in real-time based on the availability of funds in the participants account. In the event of inadequate balances, the transactions are queued. Participants have the ability to revoke such orders and re-initiate them. Transactions pending in the queue at the end of the operating hours are cancelled.

128. **The NSD-PS does not incur any credit or liquidity risks in its settlement operations as it does not provide any liquidity support (intraday/overnight or guarantee fund) to the participants.** Further, on-exchange trades (carried out on the Moscow Exchange) are centrally cleared through National Clearing Centre (NCC), which is the central counterparty and assumes all risk management responsibilities. The OTC trades are settled on a Delivery-versus-payment (DvP) and FoP modes.

Recommendations

129. **NSD should test the adequacy of its revised business continuity plan to ensure that end-of-day settlement is completed under all adverse scenarios.** (*High priority/Short term*).

130. **NSD should clearly establish by obtaining expert legal opinion that its interests and the interests of its participants are fully protected in all cases where it as an investor CSD in the CSDs of the neighbouring countries.** Link related risks should be made part of the overall risk management framework of the NSD, if not already done so (*High priority/Short term*).

National Clearing Centre

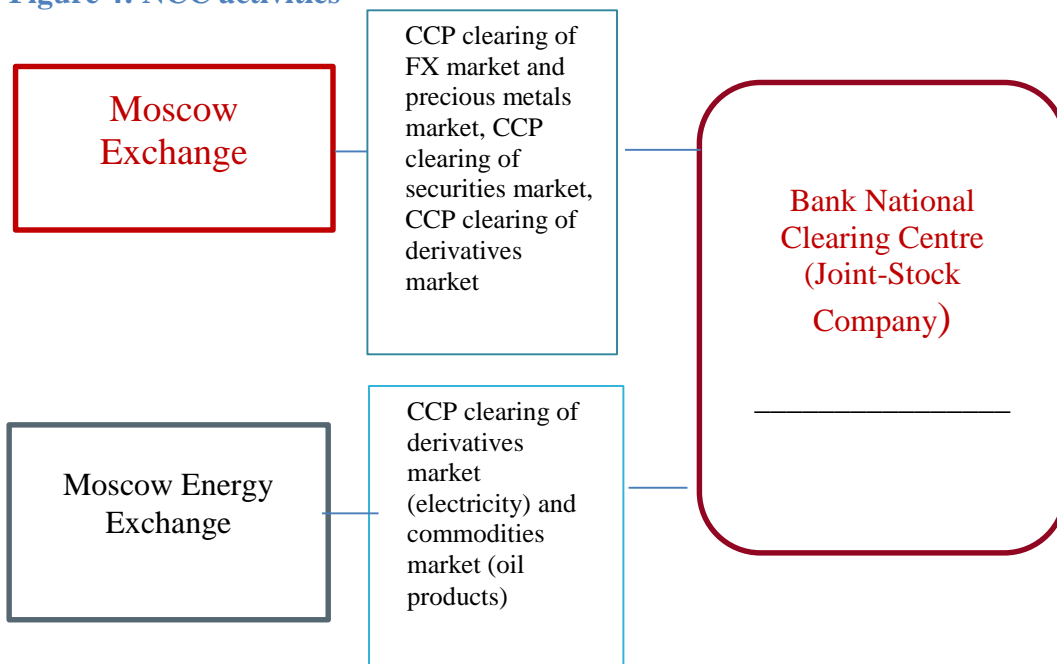
131. **The National Clearing Centre (NCC) established in 2005, is a fully owned subsidiary of the Moscow Exchange Group.** NCC functions as a clearing house and as a central counterparty in foreign exchange (FX), securities, exchange-traded derivatives and commodities in all markets of Moscow Exchange Group and the Moscow Energy Exchange market.

132. **NCC's functions as a CCP, clearing house, securities market participant and as a bank under the extant legal framework.** The legal framework comprises the CBR law (Federal Law No. 86-FZ), Banking law (Federal Law No. 395-1), Securities law (Federal Law No. 39-FZ), Clearing law (Federal Law No. 7-FZ), and Organized Trading law (Federal Law No. 325-FZ) and various CBR regulations. NCC holds banking and clearing licenses. NCC has been designated as a systemically important CCP by the CBR and has been classified as a Qualified CCP by the CBR. Having a banking status enables NCC to access CBR's refinancing operations as well as access the inter-bank markets, for its liquidity needs if any.

133. **NCC interposes itself between counterparties to a trade using the open-offer system.**

134. **The structure of NCC's activities as a CCP are depicted in the figure below.**

Figure 4: NCC activities



Source: Primary results of the Bank National Clearing Centre, 2014
<http://www.nkcbank.com/viewCatalog.do?menuKey=36>

135. **The NCC currently has 706 clearing members (794 in 2014).** The details regarding the volume and value of contracts and transactions cleared by NCC in 2013 and 2014 are given in the table below.

Table 7: Volume and value of contracts and transactions cleared by NCC

	Volume (in thousands)		Value (RUB billions)	
	2013	2014	2103	2014
Total number of contracts and transactions	232,700,60	289,355,30	379,106,09	416,141,09
of which securities transactions	85,910,90	106,065,46	231,777,76	204,063,45
of which exchange-traded derivatives contracts	146,789,70	183,289,84	147,328,33	212,077,64

Source: *Statistics on payment, clearing and settlement systems in CPMI countries – Figures for 2014*
<http://www.bis.org/cpmi/publ/d142.pdf>

136. **NCC’s governance structure consists of a Supervisory Board and a Management Board.** The Supervisory Board has 9 members - inclusive of one independent member and the CEO of NCC. The Management Board consisting of the Top Executives of NCC is tasked with the day-to-day management of NCC. The role of the Supervisory Board amongst other things relate to the appointment of the Management Board and approval of the risk management policies of NCC. The Supervisory Board has two committees – one of which is the Risk Committee. The Risk Committee includes Supervisory Board members, representatives of CBR, self-regulatory organizations and Clearing Members (who mandatorily account for half of the Committee’s membership). It is however, not clear as to whether the Risk Committee is chaired by a sufficiently knowledgeable individual independent of the NCC’s FMI’s executive management and whether the majority of members of the Committee could be considered as non-executive members. The risk management policy prepared by the Risk Department is approved by the Supervisory Board.

137. **NCC has refined its risk management procedures by implementing the default waterfall approach including minimum requirements of its own capital (skin-in-the-game) in the default waterfall.** The default waterfall approach applies the concept of mutualisation of losses to take care of participant default. NCC has also introduced stress collateral¹⁵, which is a part of the default waterfall approach. The default waterfall approach consists of: (i) defaulting clearing member’s (CM) initial margin; (ii) defaulting CM stress collateral; (iii) defaulting CM clearing collateral in other markets, pursuant to cross-default procedures defined in Clearing Rules; (iv) fixed contribution of the defaulting CM to Guarantee fund; (v) NCC’s dedicated capital (Skin-in-the-game); (vi) fixed contributions of

¹⁵ Stress collateral is a variable contribution which is proportionate to the NCC’s exposure to the CM. It is designed to cover losses in case of market stress and a clearing member’s default, before fixed contributions of non-defaulting clearing members to the guarantee fund are used.

the non-defaulting CMs to the Guarantee fund; and (vii) NCC's additional dedicated capital (Supervisory Board may make such a decision). Stress tests are conducted on a regular basis.

138. **NCC collects initial and variation margins in all market segments.** The margin models take into account price volatility, the type of product, liquidity, potential losses on account of default etc. Participants have to fulfill their margin requirements according to the timelines prescribed by NCC, failing which NCC can declare it as a default and can close out the position of the defaulting CM. Variation margin, however, is not collected for trades settling on a T+0 basis. Further, its margin methodology developed internally is not reviewed and validated by a qualified and independent expert.

139. **NCC accepts collateral based on criteria such as:** inclusion in the stock index, Lombard List of CBR, international ratings, and financial condition of the issuers to reflect regulatory requirements for low liquidity, credit and market risks. However, with respect to the derivatives market, NCC accepts shares issued by the CM or by its affiliated parties as collateral. This exposes NCC to specific wrong way risk, as it is likely that the collateral would lose value in the event that the CM providing the collateral defaults, notwithstanding conservative haircuts and limits being applied.

Recommendations

140. **Variation margin should be collected for trades settling on a T+0 basis.** In addition, the margin methodology developed internally should be reviewed and validated by a qualified and independent expert at least annually (*High priority /Short term*).

141. **NCC should stop accepting shares issued by the CM or by its affiliated parties as collateral in the derivatives segment to eliminate wrong way risk,** as it is likely that the collateral would lose value in the event that the CM providing the collateral defaults, notwithstanding conservative haircuts and limits being applied (*High priority/Short term*).

H. Oversight

142. **CBR is the sole regulator of the national payment system and the other financial market infrastructures such as central counterparties and central securities depositories in Russia.** Chapter V, Articles 31 to 37 of the NPS law provide CBR with the powers of supervision and oversight over the NPS. Chapter X, Article 76 (clauses 1 to 9), of the CBR law provide CBR with the powers of regulation, control and supervision over financial markets including CCPs and CSDs.

143. **Article 31 of the NPS law, states that the “primary objectives of national payment system supervision and oversight are to ensure the stability and development of the national payment system”.** Supervision is defined as a CBR activity for monitoring the compliance of the NPS entities (funds transfer operators that are credit institutions, payment system operators, and payment infrastructure service providers) with the requirements of the NPS law, and relevant CBR regulations. Oversight on the other hand has a softer touch with

CBR activity in this area being to make recommendations for improvement in operations and services of the NPS entities and the overall development of payment systems.

144. **Articles 32 to 34 of the NPS law, outline the supervisory role of the CBR in relation to the NPS.** The CBR can obtain data and information on the rules and operations of the systems; can conduct on-site inspections; and has the power to apply sanctions. Depending on the severity of the violation as determined by the CBR, Article 34 of the NPS law enables CBR to impose sanctions. For instance, if it is found that the violation impacts the continued operations of the system, the CBR can impose sanctions with increasing degrees of severity. These start by: (i) CBR sending a letter with a deadline for elimination of the violation; (ii) suspend operations and/or payment and clearing services; (iii) impose restrictions on the net position limit for a payment system participant (or participants) and the number of payment transfers that can be made during the day; and lastly (v) de-register the payment system operator.

145. **The CBR plays the role of a catalyst in its oversight functions. Oversight activities are defined in Article 35.** These include: monitoring; assessment; and making recommendations for initiating change. Article 35 enables CBR to obtain information for its monitoring activities. In carrying out its assessment the CBR examines whether the overseen entity is adhering to international and/or domestic standards and relevant CBR recommendations. CBR can also recommend to the entity to carry out a preliminary self-assessment and share the same with CBR. Based on its assessment (which also takes into account the self-assessment by the entity), CBR can make recommendations for initiating changes. Consolidated assessment results along with the entities acceptance or refusal to make changes as per recommendations are published on the CBR website. In addition, Articles 36 and 37 of the NPS law allow CBR to cooperate with domestic and cross-border regulators in conducting supervision and oversight of the NPS.

146. **Given the above distinction, systemically important payment systems, socially important payment systems and CCPs and CSDs are subject to supervision and regulation.** CBR has explicitly adopted the PFMI in its regulatory framework for all financial market infrastructures including systemically important payment systems. In accordance with the relevant CBR regulation in this regard, the entities - the BRPS, NSD (as a CSD, settlement depository and payment system), Golden Crown payment system and the NCC have undertaken self-assessment and published the Disclosure Framework on their respective websites. In the case of socially important payment systems a sub-set of the PFMI are used by the CBR to assess the safety and efficiency of such systems. Other entities such as e-money operators are subject to oversight.

147. **Given the nature of interdependencies and interconnectedness of the FMIs, the CBR may adopt a holistic oversight approach to ensure the safety and efficiency of the FMIs in Russia.** CBR may examine how best to utilise the existing institutional framework such as the Coordination Committee set up for Moscow Stock Exchange Companies and the CBR Consulting Board for payment system issues could be tasked for developing this holistic approach. While the Coordination Committee deals with NSD and NCC issues, it does not deal

with matters pertaining to BRPS. Similarly, the Consulting Board is devoted to payment system issues, and is not clear whether issues pertaining to NSD's activities as a depository and NCC matters are part of its agenda. Currently, the National Payment Systems Department (NPSD) of the CBR is responsible for the regulation, supervision and oversight of the National Payment System, for ex., in the case the two systemically important payment systems – the regulation and oversight of the BRPS and regulation, supervision and oversight of the NSD-PS. In the case of the other two FMIs (NSD-CSD and NCC), they are overseen and supervised by the Securities and Commodities Market Department and the Banking Supervision Department.

148. **The NPSD is also the operator of the BRPS system (apart from being the overseer).** While the operations and oversight functions are kept distinct and are organised into separate divisions in the NPSD, both divisions report to the Director of the NPSD. There does not appear to be an independent reporting line for the Oversight division in addition to its regular reporting line, which is considered to be an international best practice. Notwithstanding this, it is noted that the oversight of the BRPS is carried out by a Working Group of the CBR comprising the relevant departments.

Recommendations

149. **A holistic approach to the oversight of the FMIs should be adopted by the CBR, given the nature of interdependencies and interconnectedness of the FMIs.** CBR may examine how best to utilise the existing institutional framework such as the Coordination Committee set up for Moscow Stock Exchange Companies and the CBR Consulting Board for payment system issues could be tasked for developing this holistic approach (*High priority/Short term*).

150. **The CBR should determine whether any e-money operators with a substantial market share and a large client base, should be denoted as socially or important payment systems, to bring them under the ambit of its supervision.** The policy measure would enable the CBR to assess the safety and efficiency of such systems by subjecting them to adhere to a sub-set of the PFMI, as is done by CBR in the case of socially important payment systems. Such a move would also infuse greater public confidence and could positively contribute to greater use of e-wallets. Other e-money operators would continue to be subject to oversight as hitherto (*Medium priority/Medium term*).