



NATIONAL BANK OF SERBIA

PAYMENT SYSTEM DEPARTMENT

**PAYMENT SYSTEM  
OVERSIGHT IN 2014**



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## Introduction

Payment systems are an important part of the financial market infrastructure needed for the timely performance of payment transactions resulting from economic activities of various entities. As payment systems are exposed to a wide range of risks, their safe and sound functioning is crucial for adequate functioning of the financial system and the economy in general. Hence, particularly important payment systems are those whose failure, or the failure of whose participants, may cause serious disruption in the financial market (SIPS – Systemically Important Payment Systems).

Bearing this in mind, the National Bank of Serbia maintains payment systems and promotes the objectives of soundness, safety and efficiency by assuming the role of operator, development catalyst and, in particular, the overseer of payment systems. These roles are intertwined and complementary, reaching towards the same goal – safe and efficient payment systems in the Republic of Serbia.

In conducting payment systems oversight, the National Bank of Serbia is guided by the following key principles: transparency, application of internationally accepted standards for payment systems, and consistent application of requirements and standards to comparable payment systems. By reporting annually on its oversight activities, the National Bank of Serbia ensures transparency and contributes to a better understanding of the requirements and standards that payment systems need to comply with.

The past year was marked by significant changes in the regulatory framework governing the operation of payment systems. In late 2014, the new Law on Payment Services was adopted, which will come into effect in October 2015 and which, *inter alia*, contains provisions which regulate payment systems. When preparing the new Law on Payment Services, the National Bank of Serbia also began preparing working versions of the supporting regulations and continued its activities on the implementation of the new principles for the functioning of systemically important financial market infrastructures published by the Bank for International Settlements in 2012 (PFMIs)<sup>1</sup>. At the same time, the National Bank of Serbia conducted a partial assessment of compliance of the Clearing payment system of the National Bank of Serbia.

In 2015, within its payment systems oversight function, the National Bank of Serbia plans to complete its work on the supporting regulations needed for the implementation of the part of the Law on Payment Services pertaining to payment systems, and to make preparations for their implementation.

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<sup>1</sup> PFMIs - Principles for financial market infrastructures (BIS, 2012) – <http://www.bis.org/cpmi/publ/d101.htm?>

## 1. Regulatory framework

### 1.1. Current regulatory oversight framework

The National Bank of Serbia performs the function of payment systems oversight in accordance with the Law on the National Bank of Serbia, Law on Payment Transactions and regulations adopted under that law. The Law on the National Bank of Serbia (Article 4) prescribes, as one of the primary functions of the National Bank of Serbia, the regulation, oversight and promotion of smooth functioning of domestic and foreign payment transactions. Article 59 of the same law prescribes that the National Bank of Serbia shall ensure safe and efficient functioning and development of payment systems and shall, in accordance with law, enact regulations governing those systems. Pursuant to the authorisation referred to in the Law on Payment Transactions, the National Bank of Serbia adopted the Decision on Oversight of Payment, Clearing and Settlement Systems.

The scope of the oversight function primarily includes payment systems – systems for transfer of funds and oversight activities which address payment systems as a whole, and not individual participants. A system operator is responsible for safe and sound functioning of an individual payment system. Nonetheless, the National Bank of Serbia needs to make sure that payment systems are reliable, regardless of the operator, particularly the systemically important payment systems.

The scope of oversight also includes payment instruments which are used to initiate payment transactions in payment systems – if the use of those instruments is governed by particular rules agreed between their issuers. Oversight of the use of payment instruments is an important part of the oversight of payment systems in which payment transactions initiated by those instruments are performed and includes chiefly the consideration of the safety of their use, which is important for the maintenance of the public's confidence in the national currency.

Key activities within payment systems oversight are as follows: **monitoring** of payment systems functioning (monitoring and analysis of statistical data, information, reports and other documents relating to the functioning of payment systems which are at the disposal of the National Bank of Serbia), **assessment of compliance of payment systems with the requirements and standards set** (assessment of compliance of payment systems with the principles of functioning of those systems set forth by the Decision on Oversight of Payment, Clearing and Settlement Systems based on the core principles of the Bank for International Settlements – CPSIPS<sup>2</sup>), as well as **initiating changes to payment systems**.

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<sup>2</sup> CPSIPS – Core Principles for Systemically Important Payment Systems CPSIPS – BIS 2001

In order to ensure the transparency of the compliance assessment of payment systems, the National Bank of Serbia published the Methodology<sup>3</sup> which regulates in detail the manner in which such assessment is performed, in order that conclusions may be drawn on whether, and to what extent, a payment system is in compliance with the principles of payment system functioning. According to the Methodology, assessment of compliance may be partial – when undertaken in relation to one or more principles, or full, when undertaken in relation to all principles of proper functioning of payment systems after the payment system was in operation for a specified period of time. The Decision on Oversight of Payment, Clearing and Settlement Systems sets out the principles according to which payment systems should function and which refer, *inter alia*, to the rules and procedures which regulate their operation, financial and operational risk management, conditions for participation, etc.

By performing the oversight function, and in particular the assessment of compliance of payment systems operation with the requirements and standards set, the National Bank of Serbia takes a proactive approach in order to ensure safe and sound operation of payment systems.

## 1.2. Changes to the regulatory framework at the international level

The need to maintain security and integrity of the financial system at the global level led to a series of regulatory initiatives aimed at the accomplishment of this objective. Since the safety and efficiency of the financial infrastructure is a precondition for the maintenance of the stability of the financial system as a whole, one of the key regulatory initiatives is aimed at reducing systemic risk, i.e. ensuring a high degree of efficiency and resilience of this infrastructure to systemic shocks and promoting the transparency of its functioning.

For this reason, in 2012 the Bank for International Settlements published new Principles for financial market infrastructures (PFMIs) which represent a set of international standards whose application ensures safe and sound functioning of those infrastructures. The above document sets out 24 principles with key assumptions which need to be met in the creation and during the functioning of systemically important infrastructures, 18 of which relate to payment systems. The comparability of infrastructures of different countries is ensured through the adoption and consistent application of these principles on a global scale.

In the domain of payment systems, certain principles within the above mentioned Core Principles for Systemically Important Payment Systems (CPSIPS) have been improved, particularly those relating to payment system management and financial and operational risk management. On the other hand, a set of new principles was also

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<sup>3</sup> Methodology for the assessment of payment system compliance:  
<http://www.nbs.rs/internet/english/35/nadgledanje/index.html>

adopted, which, *inter alia*, concern the rules and procedures to be applied in the event of inability of the participants in the system to settle their obligations. These principles also relate to the management of operational risk and risks that may arise from indirect participation, and to the application of internationally accepted communications standards.

Given that the PFMIIs are not regulations, but a set of standards, their implementation varies across countries. The appropriate national bodies should clearly define and present their regulatory and supervisory functions in order to ensure compliance of systemically important infrastructures of the financial market with the requirements set by the principles.

The European Central Bank implemented the PMFIIs for systemically important payment systems in the Eurosystem through a Directive adopted in July 2014. This Directive is the basis for supervision of systemically important payment systems in all national central banks in the Eurosystem. As regards payment systems which are not systemically important, but still play a significant role in maintaining financial system stability, the European Central Bank and national central banks of the Eurosystem directly implement only certain principles and key assumptions and carry out assessment of compliance with them in order to ensure their safe and sound operation depending on risks and assessment of relative importance in the market.

### 1.3. Changes to the regulatory framework in the Republic of Serbia

In line with the trends in regulatory changes in the international environment and the process of alignment of local legislation with the EU regulations, the Law on Payment Services was adopted in the Republic of Serbia in December 2014. The Law, *inter alia*, aims to improve operation and competition in the area of payment systems, to ensure the finality of settlement in important payment systems and to create the conditions for further alignment of national payment systems with the models and rules applied in the European Union.

The Law on Payment Services regulates in detail the establishment of payment systems, defines the requirements for ensuring safe and sound operation of payment systems and introduces the supervisory function in order to verify the compliance of payment systems' operations and operators of those systems with the regulations.

The key changes in the field of payment systems brought about by the new Law refer to: payment system licensing and setting the minimum initial capital the operator must hold to be granted the license, defining in detail the requirements for the maintenance and improvement of safe and sound payment systems operation, including the maintenance of minimum system operator's capital, and determining important payment systems significant for financial system stability in order to reduce legal and systemic risk in the performance of transactions in those systems.

In the last quarter of 2014, the National Bank of Serbia began preparing drafts of supporting regulations which govern in detail the operation of payment systems and supervision of those systems. To the extent possible, the National Bank of Serbia seeks to implement the new PMFIs relevant to payment systems in the planned regulations, chiefly in order to improve the safe and sound operation of these systems, but also to fulfil the expectations regarding their adoption and consistent implementation by competent bodies.

## **2. Financial infrastructure for the execution of payment transactions in the Republic of Serbia**

Given that payment systems are a part of the financial infrastructure which enables interconnections between different entities and payment service providers in particular so as to ensure timely execution of payment transactions, the design of payment systems is of great importance for the sound functioning of the financial market and the execution of payments in a safe and reliable way.

In accordance with the international standards and practice, **large value payment systems** play a key role in the financial market and are systemically important because disturbances in their operation, i.e. risks which may occur in these systems, can result in a “domino effect” and jeopardise the stability of the entire financial system.

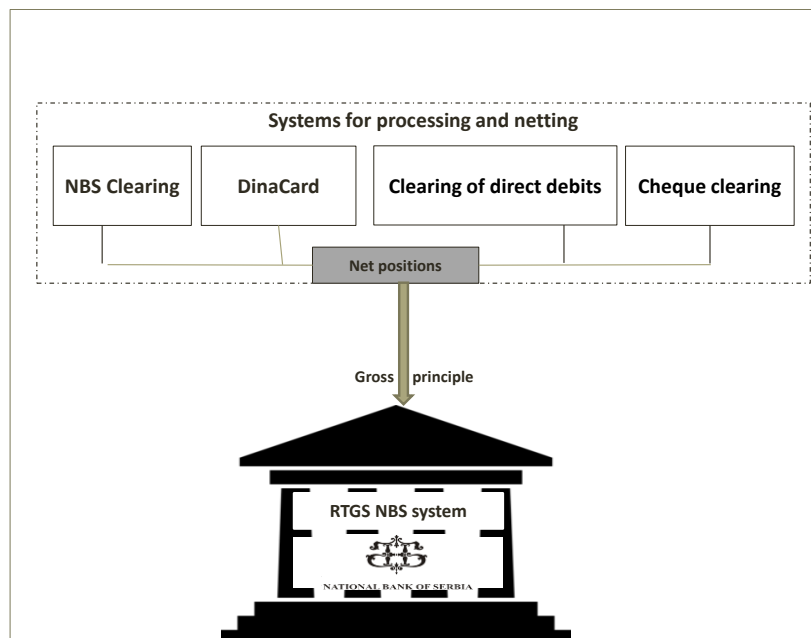
**Retail payment systems** are used for processing a large number of mostly low-value payments by means of various payment instruments – credit transfer, direct debits, cheques, payment cards, etc. These systems are generally used to perform netting and, depending on their market share, average daily value of payment transactions and the total value of net positions, they may also significantly affect the stability of the financial infrastructure.



## 2.1. Overview of payment systems in the Republic of Serbia

Financial infrastructure for the execution of dinar payment transactions in the Republic of Serbia is made up of payment systems presented in Chart 1.

Chart 1. Payment systems in the Republic of Serbia



### *RTGS NBS system*

**RTGS NBS system (Real Time Gross Settlement)** is a payment system for the transfer of funds in dinars between participants in the system in real time on the gross principle. The operator of the RTGS NBS system is the National Bank of Serbia.

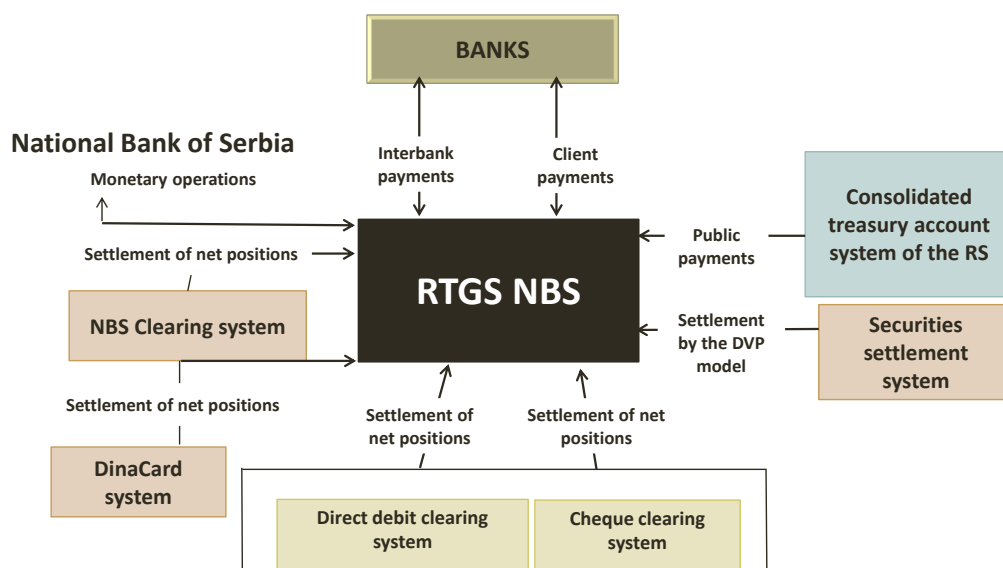
Safe, sound and efficient functioning of the RTGS NBS payment system is particularly significant for ensuring the overall stability of the financial system of the Republic of Serbia. The systemic importance of this segment of the financial system is reflected in the fact that it represents an efficient channel for the transmission of monetary policy measures, serves to settle the monetary part of transactions in respect of trading in financial instruments, and is used for the final execution of all dinar payment transactions from other payment systems (Chart 2).

Participants in the RTGS NBS system are as follows:

- National Bank of Serbia;
- Banks headquartered in the Republic of Serbia;

- Ministry of Finance – Treasury Administration;
- Central Securities Registry, Depository and Clearing, as the operator of the system for the settlement of financial instruments, and
- Association of Serbian Banks, as the operator of the direct debit clearing system and the cheque clearing system.

Chart 2. Executing settlements on the basis of transfer orders between participants



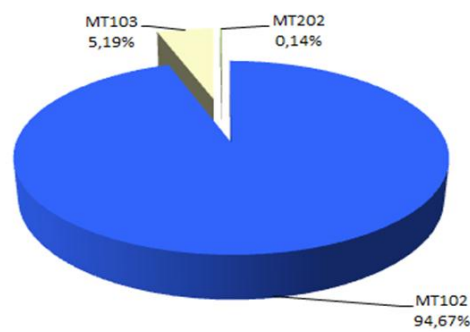
One of the indicators of the importance of the RTGS NBS system for the national economy is the value of payment transactions executed through this system in a given period. As much as 98.93% of the value of payment transactions in the Serbian financial infrastructure in 2014 was executed in the RTGS NBS system. The value of transactions executed in the RTGS NBS system in 2014 was RSD 44,917.4 bln, while the average daily value was RSD 178.2 bln.

Participants in the RTGS NBS system perform payment transactions by exchanging electronic messages under SWIFT standard, as follows:

- MT202 – transfer of funds between payment system participants;
- MT103 – single transfer orders for the account of payment service customers;
- MT102 – multiple orders for retail payments in the RTGS NBS system.

In order to ensure a more efficient execution of payment transactions and improve the services provided by the RTGS NBS system to its users (system participants and their clients), the National Bank of Serbia allows the execution of multiple orders in this system in the individual amount of under RSD 250,000 at the rates charged for payments in the NBS Clearing system (retail payments in real time at lower costs). On average, 911 retail payment orders are executed in the RTGS NBS system through group payments. In 2014, these payments accounted for the highest share in the total number of payments processed through the RTGS NBS system (94.67%) (Chart 3), and their average daily value was RSD 16 thousand.

Chart 3. Number of payments executed through the RTGS NBS system in 2014



Source: NBS.

### *Payment systems for processing and netting*

Payment systems for processing and netting – calculation of multilateral net settlement positions (retail payment systems – individual amounts under RSD 250,000) are not necessarily systemically important, but are significant for maintaining public confidence in the domestic currency and the manner of execution of payment transactions. The following retail payment systems operate in the market of the Republic of Serbia:

1. NBS Clearing;
2. DinaCard;
3. Cheque clearing;
4. Direct debit clearing.

**NBS Clearing system** is the payment system designed to execute transfer orders in respect of credit transfers where the participant initiates a transfer of funds in its own name and for its own account, as well as to execute payment transactions of its payment service customers. The participants are the National Bank of Serbia, banks

licensed by the National Bank of Serbia and the Ministry of Finance – Treasury Administration.

**DinaCard is the payment system** used for processing and netting of transfer orders in respect of the use of the national payment card – DinaCard. Participants in this system are banks which issue and accept DinaCard payment cards.

The operator of NBS Clearing and DinaCard payment systems is the National Bank of Serbia.

**Cheque clearing** is the payment system for processing and netting of receivables from cheques. Participants in this system are banks which issue cheques to current account holders and the Ministry of Finance – Treasury Administration.

**Direct debit clearing** is the payment system used to process and net transfer orders in respect of direct debits. Participants in Direct debit clearing are banks licensed by the National Bank of Serbia.

The operator of Cheque clearing and Direct debit clearing is the Association of Serbian Banks.

Multilateral net positions of participants calculated in all of the above retail payment systems in the Republic of Serbia are settled in the RTGS NBS system (Chart 2).

As mentioned above, retail payment systems may significantly affect the stability of the financial infrastructure, depending on their market share, average daily value of payment transactions and the total value of net positions.

The share of the value of payment transactions executed in a particular retail payment system in the total value of payment transactions in all payment systems used for processing and netting – market share and the average value of payment transactions processed through that system represent the quantitative indicators of the importance of that payment system in a given market.

In accordance with international standards and practice, if the market share of a retail payment system exceeds 75% per year and the average value of payment transactions executed through that payment system exceeds a threshold determined based on the market's specificities, that system can be considered a systemically important payment system for the stability of the financial infrastructure as a whole.

To estimate the performance aspects of a relevant payment netting system from the aspect of liquidity required for the settlement of all payment transactions included in the calculation of net positions, it is also important to determine the netting effect of this system expressed through the netting ratio<sup>4</sup>. A low netting ratio indicates a high netting effect of a payment system and its efficiency in terms of saving the participants' liquid assets. On the other hand, the netting ratio is also an indicator of the risk of "domino effect" occurrence. Specifically, in a payment system with a high

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<sup>4</sup> Netting ratio – ratio of total value of net positions in the payment system and the total value of payment transactions included in the calculation of net positions.

netting effect, the inability of one or more participants to settle its net settlement position when expected to do so may represent a significant risk because, in such a case, other participants are exposed to additional obligations which may cause financial risk to spread through the system and jeopardise the functioning of the financial infrastructure. With that in mind, the payment system operator must pay particular attention to risk management in a payment system and ensure mechanisms for protection against those risks if the netting ratio decreases.

Taking into account that national payment systems have specific characteristics which reflect the level of development of the financial market, business practices, historical and cultural factors, but also the legal framework in which they operate, the Law on Payment Services ensures the legal basis for further improvement and modernisation of the existing payment systems in the Republic of Serbia, as well as for the creation of new payment systems.

## 2.2. Functioning of payment systems in the new regulatory framework in the Republic of Serbia

As mentioned above, the new Law on Payment Services regulates payment systems in a thorough, complete and clear manner. Seeking to ensure safe and sound operation of a payment system, the Law imposes requirements on its operator relating to organizational, staffing and technical aspects, the system of governance and internal controls, and the continuous management of risks in the payment system, in particular the financial and operational risk.

Financial risks in payment systems arise from uncertainty regarding the ability of a participant or another entity to meet their settlement obligations (solvency risk) and to manage their liquidity (liquidity risk).

Operational risk in a payment system is the possibility of occurrence of negative effects on the operation of the payment system due to omissions of employees, deficiencies in information and other systems, inadequate internal procedures and processes, as well as the occurrence of unforeseeable external events.

The Law on Payment Services envisages that the operator shall manage the operation of a payment system in accordance with the rules of the system which play a key role in understanding the risks to which participants are exposed in the execution of payment transactions in that system. For this reason, rules of operation need to clearly, precisely and thoroughly specify the manner of processing transfer orders, netting and settlement, which are prescribed by the Law, in order that the financial risk in the system is clearly identified. This risk should be mitigated to the extent possible using various mechanisms of protection which are selected based on the characteristics of the payment system and the degree of exposure to financial risks, also taking into account whether the payment system is identified as important. This is particularly important in payment systems for processing and netting, because of the need to limit

the consequences to other participants in the system caused by a participant's inability to settle its net position when expected to do so. Furthermore, determining the course of action in case of the failure of a participant to settle obligations ensures the business continuity of payment systems and helps limit the potential spread of losses to other participants in the system.

In the performance of settlement operations, a payment system and its participants are exposed to the solvency risk if the settlement agent is unable to settle payments, and/or to the liquidity risk if settled funds are not immediately available to participants upon settlement of payment. In addition, participants are also exposed to the financial risk when the settlement agent experiences operational problems. In this regard, the operator should also adequately manage risks to which participants are exposed due to the selection of the settlement agent. Considering the importance of financial risk management, exposure of participants to this risk in a payment system is entirely eliminated by selecting the National Bank of Serbia as the settlement agent.

Operational problems in a payment system may lead to financial losses of participants, operators and other entities relevant to the operation of the system, and may jeopardise the reputation of the system. The payment system is a complex infrastructure whose operational reliability depends on the operational reliability of all components involved in its operation (hardware, software, telecommunications, electric power source, employees, etc.). In systemically important systems, consequences of operational problems are particularly evident and may jeopardise the stability of the entire financial system. Bearing this in mind, operational risk management is very important for the safe and sound operation of a payment system. The crucial segments of operational risk management relate to ensuring the security of an information system and the business continuity of a payment system, as well as establishing appropriate internal controls, taking into account good business practices and the commonly accepted standards in these areas.

To ensure that participants are able to appropriately manage risks to which they are exposed by participating in a payment system, the operator should provide them on time with accurate and complete data and information required for the risk management process, which includes all necessary technical documentation, manuals, etc. It is also important that the operator cooperates with the participants in making decisions in relation to payment system operation and management of risks in the system, and in particular those decisions which relate to the rules of operation, so as to ensure that the needs of the payment system are met efficiently and effectively.

The new Law also introduces the concept of the systemically important payment system which is significant for the stability of the entire financial system in which the finality of settlement is protected in case a participant is unable to settle payment. Given its significance, a systemically important payment system must, in addition to the requirements prescribed for all payment systems, meet additional requirements prescribed by the Law and the supporting regulations which will be adopted under the

Law. These additional requirements refer in particular to the fact that the rules of a systemically important payment system clearly define the moment of acceptance of a transfer order in that system and the moment after which the participant and the third party may not revoke the order (moment of irrevocability). The rules also stipulate that the operator needs to undertake all reasonable measures to ensure the continuation of core operating processes relative to the operation of the payment system within two hours from the occurrence of events which prevent regular operation of the system, and/or to ensure the completion of settlements based on transfer orders by the end of the day when the settlement must be performed at the latest.

Given the importance of the financial infrastructure for the execution of payment transactions, the application of the new Law on Payment Services and the supporting regulations which will be adopted under the Law will improve the operation of this infrastructure and contribute to the maintenance of its safety and soundness.

### **3. Assessment of payment systems**

Within the function of payment system oversight, in 2014, the National Bank of Serbia monitored the fulfilment of recommendations which were determined after the assessment of the RTGS NBS system in the part of financial and operational risk management so as to help participants to better understand the impact of this system on the exposure to those risks, and advise them in relation to their relevant rights and obligations. Aiming to fulfil the above recommendations and to comply with the new Law on Payment Services, the National Bank of Serbia began drafting new Rules of operation of the RTGS NBS system in 2014.

Also, a partial assessment was carried out of the alignment of the NBS Clearing system with the requirements and standards for the functioning of payment systems, with the aim of aligning the rules of operation of this system with the requirements set by the Law on Payment Services.

#### **3.1. Partial assessment of compliance of the NBS Clearing system**

The National Bank of Serbia established the Clearing system based on the Law on Payment Transactions and regulations adopted under the Law in 2003, at the same time with the establishment of the RTGS NBS system. In the Clearing system, the National Bank of Serbia provides the service of deferred transfer of funds in dinars between its participants in the net amount – multilateral net position (hereinafter: net position), in three clearing cycles on each business day (at 10:30, 12:30 and 14:45). Within the Clearing system, participants are connected into a single whole in which payment

transactions are executed through an exchange of SWIFT standard-based electronic messages using the private communication network of the National Bank of Serbia.

In the 252 business days in 2014, a total of 51.9 million payments were executed in the Clearing system of the National Bank of Serbia. The value of transactions performed in the Clearing system in 2014 was RSD 403.5 bln. The average daily value of transactions in the Clearing system was RSD 1.6 bln.

The RTGS NBS and NBS Clearing systems are technically and technologically integrated, with each system functioning according to different rules of operation, because of the manner in which payment transactions are performed. Taking this into account, a partial assessment of compliance of the NBS Clearing system was carried out, i.e. assessment of compliance of this system with the principles under which specific requirements were determined for payment systems which allow netting of payments.

Partial assessment of compliance, as mentioned earlier, is undertaken in relation to one or more principles of payment system functioning, in accordance with the Decision on Oversight of Payment, Clearing and Settlement Systems and the Methodology which regulates in detail, *inter alia*, the manner of performing the assessment. With that in mind, assessment of compliance with the following principles was undertaken:

	PRINCIPLE	EXPLANATION
II.	<i>The system's rules and procedures should enable participants to have a clear understanding of the system's impact on each of the financial risks (credit risk and liquidity risk) they incur through participation in it</i>	<i>To comply with this principle, it needs to be determined whether rules and procedures regulating financial risk management in the payment system are transparent and clear to all participants</i>
III.	<i>Payment system should have clearly defined procedures for the management of financial risks, which specify the respective responsibilities of the system operator and the participants in terms of managing such risks</i>	<i>This principle emphasises the significance of the quality of rules and procedures for financial risk management in the payment system, as well as the importance of securing instruments that enable participants to monitor and manage risks they face in such systems</i>



<b>IV.</b>	<b><i>Payment system should provide prompt final settlement on the value date, preferably in the course of the day and at a minimum at the end of the day</i></b>	<i>Compliance with this principle is determined through an in-depth analysis of the rules pertaining to payment execution in the system. The assessment further includes the analysis of the adherence to the system's timetable and determining the volume of information available to participants with regard to their payment status</i>
<b>V.</b>	<b><i>Payment system in which multilateral netting takes place should, at a minimum, be capable of ensuring timely completion of daily settlements in the event of an inability of a participant to settle the largest single multilateral negative net amount</i></b>	<i>This principle includes the assessment of whether the system in which multilateral netting takes place is capable of ensuring timely completion of daily settlements in the event of inability of the participant to settle its largest net negative position</i>

### 3.2. Compliance of the NBS Clearing system with principles

The results of the partial assessment of compliance have shown that the NBS Clearing system functions in accordance with the principles set by the Decision on Oversight of Payment, Clearing and Settlement Systems. Based on the thorough analysis of collected information and documents in relation to the operation of this system<sup>5</sup>, the following was determined regarding individual principles:

<b>II.</b>	<b><i>The system's rules and procedures should enable participants to have a clear understanding of the system's impact on each of the financial risks (credit risk and liquidity risk) they incur through participation in it</i></b>
	<p>Rules and procedures of a system play a key role in enabling participants to have a clear understanding of the financial risks they face through participation in it. Efficient financial risk management in a payment system in particular requires that participants know the characteristics of the system, in order to understand their obligations in relation to financial risk management.</p> <p>The operation of the NBS Clearing system is regulated in detail by the Decision on the Settlement and Clearing and Functioning of Clearing Accounts of Banks with the National Bank of Serbia (hereinafter: Decision), the Operating Rules for Clearing (Net Settlement) Services (hereinafter: Rules of operation), and the procedures established by the National Bank of Serbia to ensure greater efficiency of operations in relation to the operation of this payment system.</p> <p>The Decision and the Rules of operation specify the manner in which</p>

<sup>5</sup> Results of the assessment were published taking into account the confidentiality of certain data and information.

	<p>payment orders are executed, i.e. their acceptance by the system and calculation of net positions for settlement via the participants' settlement accounts, enabling participants to learn about the basic characteristics of the NBS Clearing system.</p> <p>The Rules of operation, covering financial risk management, are up-to-date and available on the website of the National Bank of Serbia, which ensures their transparency for all stakeholders. Pertinent for financial risk management in the NBS Clearing system are the parts of the Rules of operation which govern caps, acceptance of orders by the system, the manner of execution of those orders and exit from the NBS Clearing system.</p> <p>The analysis of the Rules of operation showed that there is room for further regulation of the course of payment order execution, from the moment it enters the system to the moment of its settlement, so that in each stage of order execution it can be established without a doubt whether the situation has occurred in which financial risks may arise, which instruments are available to the participants in terms of managing that risk, and what the respective responsibilities of the participants in the process of execution of that payment order are.</p>
<b>III.</b>	<p><b><i>Payment system should have clearly defined procedures for the management of financial risks, which specify the respective responsibilities of the system operator and the participants in terms of managing such risks</i></b></p>
	<p>In payment systems with a time delay between the acceptance of payment order and its final settlement, i.e. deferred net settlement systems, financial risks may occur (credit risk and liquidity risk), which needs to be overseen and controlled. If the above risks are not adequately managed, situations may occur in which the inability of a participant to settle its obligation on account of a net position leads to recalculation and changes in net positions of other participants in the system with the possibility that one of those participants will be unable to settle its obligation because of the new changed net position (so-called "domino effect").</p> <p>With the aim of managing credit risk, the Rules of operation of the NBS Clearing system specify that, prior to the beginning of each clearing cycle, the National Bank of Serbia approves a cap for a negative net position from the multilateral calculation in clearing to each participant, and/or reserves the appropriate amount of funds in the participant's account in the RTGS NBS system which is used to settle net positions. Furthermore, the Rules of operation specify that the negative net position must never exceed the approved cap. A participant may request the cap to be increased or decreased in line with its needs, but the change may be approved only if there are sufficient funds in the participants' accounts in the RTGS NBS system and their net positions are positive at the moment the request is made.</p> <p>Payment orders in the NBS Clearing system are executed through an exchange of electronic messages between the participants. Messages sent by the participants in the NBS Clearing system must be validated, i.e. must fulfil the requirements established by the system's rules. If the message meets the specified requirements, it is processed further through the system to determine the fulfilment of requirements for participation in the clearing system, i.e. the</p>

	<p>message will be included in the clearing cycle only if the negative net position of that participant does not exceed the approved cap. All messages which do not meet the requirements for participation in clearing are queued and will, after the required funds are provided, be executed according to the order of acceptance in the following cycles by the end of the settlement day.</p> <p>The Rules of operation of the NBS Clearing system also specify the manner in which the participants in the system are informed. After validation, the system sends a message to the participant to acknowledge the receipt or to reject the message. After each clearing cycle, the participant receives a report on executed transactions and individual messages for payment sent to the participant by other participants. The participants can, during the business day, monitor the status of their payment orders, and/or the amount of reserved funds, and a potential change in their net positions prior to each clearing cycle.</p> <p>The policy of rising fees encourages participants to submit payment orders earlier during business hours of the NBS Clearing system so as to ensure smooth execution of those orders.</p> <p>In order to maintain the liquidity of banks, the National Bank of Serbia, in accordance with regulations, approves daily liquidity loans against a collateral of qualified securities at a discount to their nominal value.</p>
IV.	<p><b><i>Payment system should provide prompt final settlement on the value date, preferably in the course of the day and at a minimum at the end of the day</i></b></p>
	<p>A payment system should be designed in the manner which enables final settlement on the value date under normal circumstances, i.e. settlement of the payment order on the day when funds need to be transferred to the recipient of payment – another participant in the system.</p> <p>In the NBS Clearing system, final settlement of all payment orders accepted by the system for settlement on that particular date must be completed on the value date. That is to say, the Rules of operation of the NBS Clearing system specify that after the clearing – calculation of net positions, orders are given to execute those positions in the RTGS NBS system.</p> <p>Given that the net positions are settled in the RTGS NBS system, the Rules of operation of this system specify that payment orders in that system are finally settled on the value date, during the business day of the RTGS NBS system. Orders used to execute net positions in the NBS Clearing system are processed and settled immediately upon their acceptance by the RTGS NBS system from the funds previously reserved by the participants for the purpose of settlement of negative net positions.</p> <p>In order to execute negative net positions of a participant, the participant's account in the RTGS NBS system is debited, while crediting the clearing account of the NBS Clearing system in the RTGS NBS system. In order to execute positive net positions, the clearing account of the NBS Clearing system in the RTGS NBS system is debited, while crediting the clearing account of the participant in the RTGS NBS system. As mentioned earlier in relation to the previous principle, after each clearing cycle, participants receive a report on executed transactions and individual messages for payments sent to the</p>

	<p>participant by other participants.</p> <p>Business days and standard business hours of the system during a business day are clearly specified, publicly announced and are strictly adhered to. The National Bank of Serbia may, if necessary, and at a participant's request, change the Daily Time Schedule of the NBS Clearing system.</p> <p>Considering the above, there is room for improvement of the Rules of operation of the NBS Clearing system, particularly in terms of describing in more detail the course of payment order execution and specifying more accurately the situations in which the Daily Time Schedule of this system may be changed, and the manner in which it is changed.</p>
V.	<p><b><i>Payment system in which multilateral netting takes place should, at a minimum, be capable of ensuring timely completion of daily settlements in the event of an inability of a participant to settle the largest single multilateral negative net amount</i></b></p>
	<p>The minimum requirement which needs to be met in a deferred net settlement system relates to its capability to withstand a situation in which the participant with the largest negative net position is unable to settle that position, i.e. the system needs to be protected against liquidity risk which may occur in the situation where a participant does not fulfil its net obligation at the moment it is expected to do so.</p> <p>The Rules of operation of the NBS Clearing system established a financial risk management system which eliminates the possibility that system participants will have insufficient funds to execute settlement of calculated negative net positions. Namely, as mentioned earlier, the National Bank of Serbia approves a cap for negative net position to each participant, i.e. reserves an appropriate amount of funds in the participant's account in the RTGS NBS system to be used for the settlement of net positions. Negative net position may never exceed the approved cap, i.e. the message for payment will be accepted in the payment cycle only if the negative net position of the participant does not exceed the approved cap.</p>

Seeking to fulfil the specified recommendations, the National Bank of Serbia, as the operator of the NBS Clearing system has begun drafting new Rules of operation of this system, which will at the same time be aligned with the new Law on Payment Services.