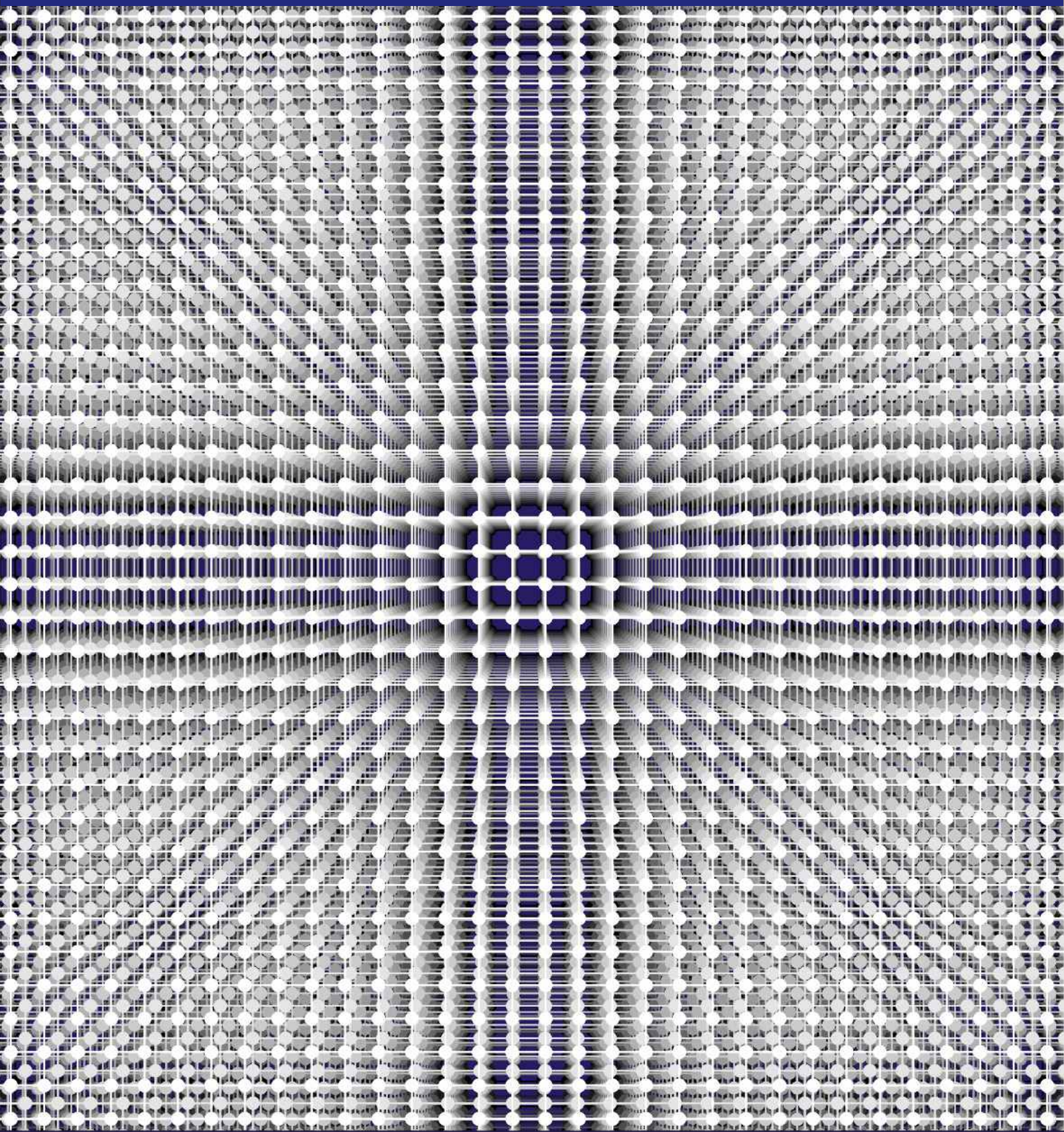


**PAYMENT AND SECURITIES SETTLEMENT SYSTEM OVERSIGHT
CARRIED OUT BY THE BANK OF LATVIA IN 2012**



CONTENTS

EXECUTIVE SUMMARY	4
1. OVERSIGHT OF SYSTEMICALLY IMPORTANT PAYMENT AND SECURITIES SETTLEMENT SYSTEMS	6
1.1 The SAMS	6
1.2 TARGET2-Latvija	9
1.3 DENOS	10
2. RETAIL PAYMENT SYSTEMS	15
2.1 The EKS	15
2.2 The FDL	18
2.3 Postal settlement system (PNS)	19
2.4 JSC <i>Itella Information</i> system	19
2.5 Risk-based assessment of Latvia's payment systems	20
3. PAYMENT INSTRUMENTS	21
3.1 Development of payment instruments	21
3.2 A survey on correspondent banking arrangement	24
3.3 Customer counselling	26
4. SEPA PROJECT	26
5. TARGET2-SECURITIES PROJECT	27
6. THE OVERSIGHT PROJECT "SOCIAL COSTS OF PAYMENT INSTRUMENTS"	28
7. LEGISLATIVE AMENDMENTS	29
8. COOPERATION WITH THE ECB	30
9. INFORMATION TO THE PUBLIC	31
10. THE BANK OF LATVIA'S PAYMENT AND SECURITIES SETTLEMENT SYSTEM POLICY	31
APPENDICES	
1. Overview of the assessment of the SAMS compliance with the Core Principles	32
2. Risk-based assessment of Latvia's payment system oversight	50
3. The Bank of Latvia's achievements in the SEPA project	64
4. The Bank of Latvia's achievements in TARGET2-Securities project	67

© Latvijas Banka, 2013

The Bank of Latvia Payment Systems Department has compiled the data.
The source is to be indicated when reproduced.

ISBN 978-9984-888-29-3

Latvijas Banka (Bank of Latvia)

K. Valdemāra iela 2A, Rīga, LV-1050

Tel.: +371 67022300 Fax: +371 67022420

<http://www.bank.lv>

info@bank.lv

ABBREVIATIONS

ACBL – Association of Commercial Banks of Latvia
 AMS – automated payment system of the JSC *Itella Information*
 ATM – Automated Teller Machine
 COGEPS – Contact group on euro payments strategy
 CPSS – Committee on Payment and Settlement Systems
 CPSS-IOSCO – Committee on Payment and Settlement Systems and International Organisation of Securities Commissions
 CRPC – Consumer Rights Protection Centre
 CSB – Central Statistical Bureau of Latvia
 CSD – Central Securities Depository
 DENOS – securities settlement system of the LCD
 DVP – delivery versus payment
 EC – European Commission
 ECB – European Central Bank
 ECL – Employers' Confederation of Latvia
 EEA – European Economic Area
 EKS – Bank of Latvia electronic clearing system
 e-money – electronic money
 EPC – European Payments Council
 ESCB – European System of Central Banks
 ESCB-CESR – ESCB and the Committee of European Securities Regulators (CESR¹)
 EU – European Union
 FCMC – Financial and Capital Market Commission
 FDL – First Data Latvia Ltd
 FDL system – local lats clearing and settlement system of FDL
 FOP – free of payment
 GDP – gross domestic product
 IT – information technologies
 JSC – Joint Stock Company
Latvijas Pasts – SJSC *Latvijas Pasts*
 LCD – Latvian Central Depository
 LIKTA – Latvian Information and Communications Technology Association
 Ltd – Limited liability company
 MPSWG – Money and Payment Systems Working Group of the Republic of Latvia
 Euro Project Steering Committee
 SMECCC – Small and Medium-Sized Enterprises and Crafts Consultative Committee
 NSWG – National SEPA Working Group
 NUG – National User Group
 OTC – over-the-counter
 POS – Point of Sale
 PNS – Postal settlement system of *Latvijas Pasts*
 r.i. – restricted information
 SAMS – Bank of Latvia interbank automated payment system
 SEPA – Single Euro Payments Area

¹ As of 1 January 2011, the European Securities and Markets Authority (ESMA).

SJSC – State Joint Stock Company
SRS – State Revenue Service
SSIA – State Social Insurance Agency
Stock Exchange – Stock Exchange *NASDAQ OMX Riga*
SWIFT – an international organisation established by banks to ensure the transmission of interbank financial messages by means of the telecommunications network (*Society for Worldwide Interbank Financial Telecommunication*)
TARGET – Trans-European Automated Real-time Gross settlement Express Transfer system
TARGET2 – second generation system of TARGET
T2S – TARGET2-Securities
VNS – Bank of Latvia securities settlement system
US – United States of America

EXECUTIVE SUMMARY

In Latvia, the payment system oversight is performed in accordance with Article 9 of the Law "On the Bank of Latvia", stipulating that the Bank of Latvia shall promote smooth operation of payment systems in the Republic of Latvia. To achieve the above goal, the Bank of Latvia performs oversight of the payment systems, ensures the operation of interbank payment systems as well as provides settlement services to financial market participants through the deposit accounts with the Bank of Latvia. The Bank of Latvia is also in charge of the oversight of securities settlement systems since problems in the securities settlement infrastructure may cause disruptions in payment system operation and affect the implementation of monetary policy.

In 2012, the oversight was conducted in accordance with "The Bank of Latvia's Payment and Securities Settlement System Policy" (approved by the Bank of Latvia's Council Resolution No. 189/6 of 13 January 2011).

The Bank of Latvia maintains the operation of the interbank payment systems thus ensuring secure, rapid and efficient settlement between credit institutions as well as the final settlement of other systems. Hence efficient payment infrastructure is available to credit institutions providing payment services to their customers.

The Bank of Latvia conducted a day-to-day oversight of the Bank's payment systems SAMS, EKS, TARGET2-Latvija and securities settlement system DENOS of the LCD, analysing the technical and operational functions of the systems and collecting statistical data on the systems. In 2012, the daily average of payments processed via all three systems maintained by the Bank of Latvia totalled 138.1 thousand payments in the value of 1.0 billion lats. The SAMS processed 229.7 thousand payments in the value of 111.2 billion lats in 2012; TARGET2-Latvija handled 328.1 thousand payments in the value of 185.9 billion euro (130.7 billion lats) and EKS – 34.2 million payments in the value of 16.6 billion lats. The SAMS availability was 100.00%, the availability of TARGET2 totalled 100.00% in the whole system and that of EKS stood at 99.80% (the delays in settlement exceeded 30 minutes only on three occasions over the year). The analysis of systemic risk suggested that risk still remained low. The total volume of transfers via the DENOS was 50.2 thousand, of which, DVP accounted for 20.8 thousand (the total value was 492.1 million lats) and FOP amounted to 29.4 thousand. The DENOS ensured 99.6% availability.

In 2012 within the framework of the payment system oversight, the Bank of Latvia assessed the compliance of the SAMS with the *Core Principles for Systemically Important Payment Systems* (hereinafter, the Core Principles), approved by the CPSS. The Bank of Latvia in cooperation with the FCMC performed the compliance assessment of the DENOS against the ESCB-CESR recommendations for the securities settlement systems.

The Bank of Latvia continued to oversee the retail payment systems operating outside the Bank of Latvia, establishing priorities of the oversight in accordance with the risk based oversight assessment of Latvia's payment systems conducted in 2009.

To promote the integration of Latvia's payment systems into SEPA, the Bank of Latvia engaged in further activities of SEPA Project in the capacity of the payment system overseer. At the same time, to promote the integration of Latvia's securities settlement systems into the harmonised securities settlement process of the EU Member States, the overseers continued to participate in T2S project.

The Bank of Latvia prepared a review of social costs of retail payment instruments in Latvia. According to the Review data, the total social costs of payment instruments in Latvia amounted to 121.5 million lats or 0.9% of GDP in 2009, and of all payment instrument social costs, those of cash payments were the largest ones, amounting to 65.8 million lats.

The Bank of Latvia conducted a recurrent risk based oversight assessment of Latvia's payment systems. The above assessment supported the oversight priority of focusing primarily on the SAMS, including its day-to-day oversight, as stipulated by "The Bank of Latvia's Payment and Securities Settlement System Policy".

1. OVERSIGHT OF SYSTEMICALLY IMPORTANT PAYMENT AND SECURITIES SETTLEMENT SYSTEMS

In 2012, the Bank of Latvia, in the capacity of an overseer of the systemically important payment and securities settlement systems, performed the day-to-day oversight (including the analysis of statistical data) and assessed systemic risk as well as performed the compliance assessment of the DENOS against the ESCB-CESR recommendations for the securities settlement systems and that of SAMS against the Core Principles.

1.1 The SAMS

In 2012, the SAMS was the only systemically important payment system for the lats payments in Latvia. According to the statistical data, in 2012, the total volume of payments processed via the SAMS recorded a year-on-year growth of 6.1%, totalling 229.7 thousand per annum, while the total value of payments declined by 19.3% and totalled 111.2 billion lats per annum. In 2012, the SAMS availability was 100%. The analysis of systemic risk suggested that risk still remained low.

The Bank of Latvia conducted the compliance assessment of the SAMS against the Core Principles in 2012, finalising the above in February 2013. Pursuant to the assessment, the SAMS observes all applicable Core Principles (see Appendix 1 for the Oversight Report).

In 2012, the SAMS was the sole systemically important payment system for lats payments in Latvia. The above system continued to ensure real-time gross settlement in lats for the Bank of Latvia monetary policy operations, large-value interbank payments, final settlement or netting settlement of other payment systems operating in Latvia and urgent customer payments.

The Bank of Latvia assessed the SAMS compliance against the Core Principles. Pursuant to the assessment, the SAMS observes all applicable Core Principles (see Appendix 1 for the Oversight Report).

In order to proceed with the evaluation of liquidity conditions in the system (Core Principle III) and notice the signs of potential operational risk on a timely basis (Core Principle VII), the following functions of the day-to-day or ongoing oversight were performed in 2012: the collection and analysis of the SAMS statistical data and assessment of the system's availability and incidents, thereby analysing their impact on other systems.

Analysis of the system's statistical data

At a monthly frequency, the Bank of Latvia compiled detailed information on the payments executed via the SAMS in the previous month. Statistical data were published on the Bank of Latvia website as well as used for compiling the Bank of Latvia reports.

At the end of 2012, there were 28 participants in the SAMS, i.e. a year-on-year increase of two participants, since two new participants joined the system over the year: *Pohjola Bank plc* Latvia Branch and *Wirecard Bank AG*. 26 credit institutions (including five branches, registered in Latvia, of credit institutions registered in other countries), the Treasury and the Bank of Latvia were the participants in the system. In 2012, the volume of payments processed in the SAMS recorded a year-on-year increase of 6.1%,

totalling 229.7 thousand, while the total value of payments decreased by 19.3% (to 111.2 billion lats; see Charts 1 and 2). The declining total value of payments processed via the SAMS is primarily attributable to the fact that credit institutions reduced the amount of overnight deposits with the Bank of Latvia substantially in 2012, as compared to 2011.

Chart 1
Volume of payments processed in the SAMS
 (in thousands)

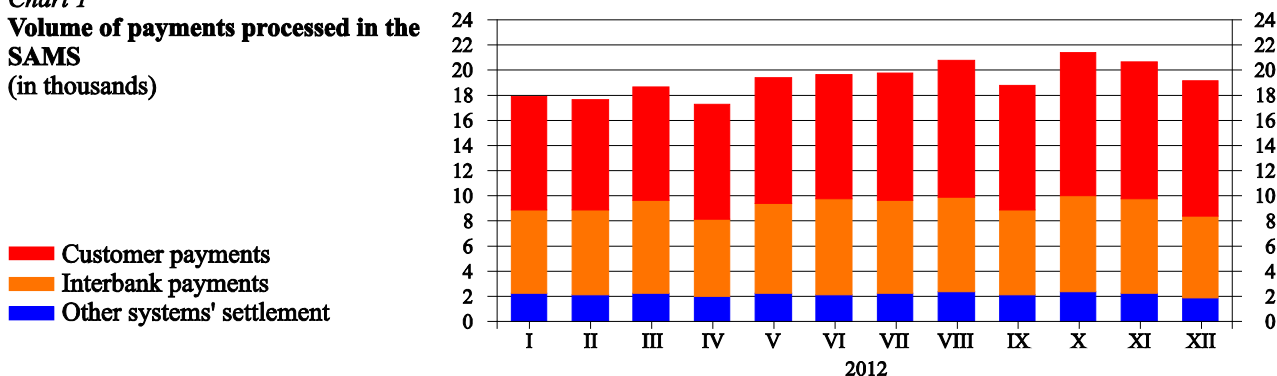
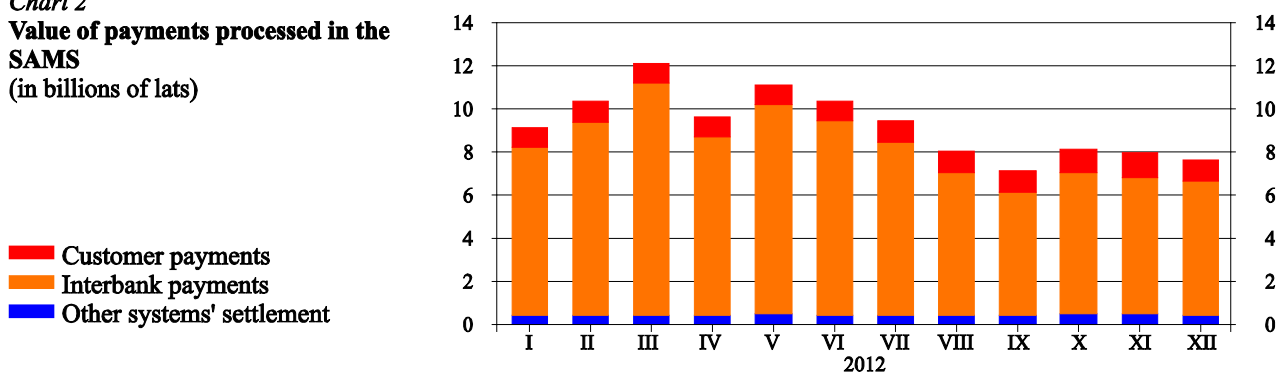


Chart 2
Value of payments processed in the SAMS
 (in billions of lats)



In 2012, the share of interbank payment value reached 84.8% in the SAMS, that of customer payment value was 10.7% and the share of interbank and customer payment volume amounted to 36.8% and 51.7% respectively. The SAMS ensured the final settlement of *MasterCard Europe Sprl* and *Visa Europe Services Inc.* card payment systems, DENOS, FDL and EKS in 2012. The share of the final settlement of ancillary systems in the SAMS amounted to 4.5% and 11.5% in terms of the value and volume respectively.

On the basis of the data entered into the Bank of Latvia Incident Register, the overseers were notified of the operational problems incurred by the SAMS or its maintenance resources and the solution thereof. The overseers monitored the problem-solving process and informed the Head of the Payment Systems Department of the Bank of Latvia and other experts involved in the elimination of operational disruptions on the impact of such disruptions on other systems, where necessary.

The SAMS availability was 100% in 2012 (99.93% in 2011). The system-related incidents and emergency situations did not cause the discontinuity of the Bank of Latvia's critical processes.

Risk assessment

In 2012 as before, three indicators were analysed to assess systemic risk: 1) the share of the system in the respective segment of payments; 2) concentration ratio and 3) the netting effect ratio.

In 2012, 94.3% of all interbank credit transfers initiated in Latvia in lats were made via the SAMS and their share of value amounted to 92.0% (92.9% and 96.8% respectively in 2011).

The volume concentration ratio of the SAMS was 69.9% and value concentration ratio stood at 76.8% in 2012 (71.9% and 78.4% respectively in 2011). Such a decrease in the above ratio points to a declining probability of a domino effect in the SAMS.

The netting effect ratio of the SAMS characterising the utilisation of settlement funds in the case of a gross settlement system, amounted to 30.7% in 2012 (44.9% in 2011). It was calculated as the ratio of the annual average value of daily payments sent by the participants via the SAMS to the average daily balance on the participants' accounts with the Bank of Latvia. In 2012, the above amounted to 299.0 million lats and 973.7 million lats respectively. Since the account balance of the Bank of Latvia as the participant in the system may not be reported separately, the payments submitted by the Bank are not taken into account in the calculation.

The netting effect ratio remained low and hence the probability of systemic risk was low. The value of payments executed per day in efficient payment systems may even several times exceed that of the funds available on the accounts. Such a netting effect ratio may be attributed to the fact that the credit institution deposits held in lats accounts with the Bank of Latvia are used for executing the payments and fulfilling the minimum reserve requirements stipulated by the Bank of Latvia. Hence the value of funds on these accounts exceeds the value required for the payment execution.

To determine whether a failure by an individual participant in the SAMS to send a payment might affect the ability of other SAMS participants to execute a payment, and to assess the adequacy of liquidity in the SAMS, in 2012, the Bank of Latvia carried out the SAMS data simulation by simulating the payment and settlement system operation with the help of the model BoF-PSS2 developed by *Suomen Pankki – Finlands Bank*. The simulation results lead to a conclusion that the Bank of Latvia still remains the sole important participant in the SAMS ensuring the compliance with high business continuity requirements stipulated in the ECB publication *Business Continuity Oversight Expectations for Systemically Important Payment Systems* (SIPS) of June 2006.

It has been concluded upon assessing the adequacy of liquidity in the SAMS that the highest daily level of liquidity required for the execution of payments in real time without delays only amounts on average to 30.0% of the funds held on the settlement accounts. High liquidity adequacy is thus confirmed. The above high liquidity on the settlement accounts of the system's participants is mainly related to the compliance with the minimum reserve requirement. The scope of the above ratios exceeds substantially the liquidity required for the settlement. The availability of settlement funds in the SAMS is also on account of the liquidity made available to the system's participants by other participants in the system on a daily basis, and the payment transmission time is dispersed throughout the entire operation time of the system.

1.2 TARGET2-Latvija

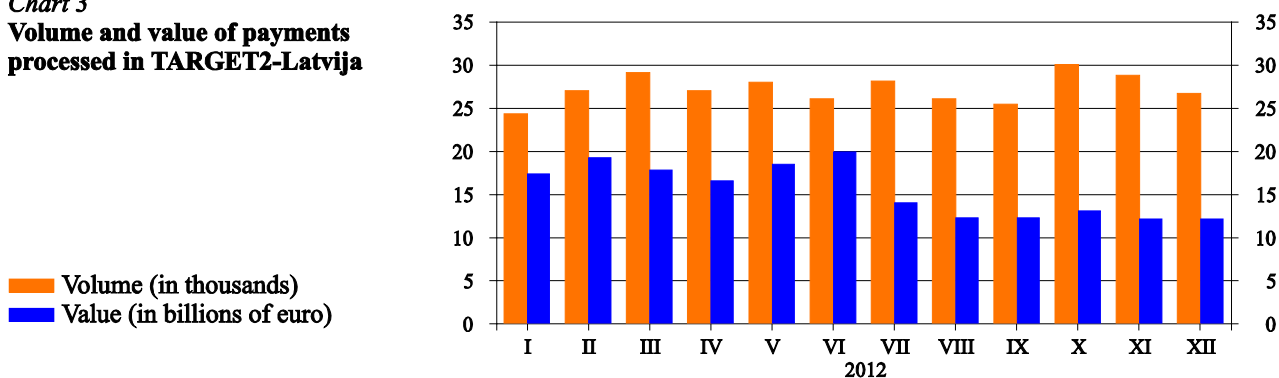
In 2012, TARGET2 was one of the systemically important payment systems processing euro payments in the EU. The Eurosystem performed the oversight of TARGET2. The Bank of Latvia was involved in the oversight of TARGET2 in the capacity of an observer and provided data on the operation of TARGET2-Latvija for the oversight purposes. According to the statistical data, in 2012, the total volume of payments processed via TARGET2-Latvija recorded a year-on-year growth of 6.7%, totalling 328.1 thousand per annum, while the total value of payments declined by 18.4% and totalled 185.9 billion euro per annum (see Chart 3).

In 2012, the Bank of Latvia, together with other participants of the ESCB provided the operation of TARGET2. The Bank of Latvia maintained the operation of TARGET2-Latvija, the component of TARGET2, enabling the payment settlement among the system's participants in euro and final settlement of other systems in euro.

On 31 December 2012, TARGET2-Latvija comprised 26 participants (two participants more than on 31 December 2011) since the JSC *Latvijas Biznesa banka* and *Pohjola Bank plc* Latvia Branch joined the system over the year. 24 credit institutions (including four branches, registered in Latvia, of credit institutions registered in other countries), the Treasury and the Bank of Latvia were the participants in the system. In 2012, TARGET2-Latvija provided the final settlement of the EKS in euro.

In 2012, the total volume of payments processed via TARGET2-Latvija recorded a year-on-year growth of 6.7%, totalling 328.1 thousand per annum, while the total value of payments declined by 18.4% and totalled 185.9 billion euro per annum (see Chart 3). The declining value is mainly attributable to a fall in the value of cross-border interbank payments executed by credit institutions.

Chart 3
Volume and value of payments processed in TARGET2-Latvija



TARGET2-Latvija is a component of TARGET2, and the system's availability ratio is calculated for the whole system. In 2012, the availability of TARGET2 stood at 100.00% (99.89% in 2011).

In order to notify the users of incidents in TARGET2 and ensure incident solutions, the ECB published information about the availability of TARGET2 in the TARGET information system, *Reuters* and on the ECB website.

1.3 DENOS

In 2012, DENOS was the only systemically important securities settlement system in Latvia. According to statistical data, the volume of transfers processed in DENOS stood at 50.2 thousand in 2012 (an 18.9% decline year-on-year), of which DVP amounted to 20.8 thousand and FOP – 29.4 thousand. The total value of DVP amounted to 492.1 million lats per annum, representing a 26.5% decrease over 2011. DENOS ensured 99.6% availability. The analysis of systemic risk suggested that risk still remained low.

The Bank of Latvia in cooperation with the FCMC assessed DENOS as compliant with the ESCB-CESR recommendations for the securities settlement systems.

In 2012, DENOS was the only systemically important securities settlement system in Latvia. It continued to provide DVP gross and net settlement for transactions executed at the Stock Exchange as well as DVP and FOP gross settlements for OTC transactions.

In 2012, the LCD continued to provide the bilateral cross-border settlement with the Estonian CSD *Eesti Väärtpaberikeskus AS* and Lithuanian CSD *Vertybinių popierių atsiskaitymo sistema* and unilateral settlement with the international CSD *Clearstream Banking SA Luxembourg* through DENOS. The links with *Eesti Väärtpaberikeskus AS*, *Vertybinių popierių atsiskaitymo sistema* and *Clearstream Banking SA Luxembourg* provided the securities settlement by means of FOP and DVP. In 2012, the LCD entered into a link agreement with Poland's CSD *Krajowy Depozyt Papierów Wartościowych S.A.* The link with *Krajowy Depozyt Papierów Wartościowych S.A.* was unilateral and enabled the transfer of securities registered with the LCD to *Krajowy Depozyt Papierów Wartościowych S.A.*, by means of FOP. In 2012, transfers were not executed via the link of *Krajowy Depozyt Papierów Wartościowych S.A.*

Cooperation and information exchange has to be maintained with the supervisory authorities of the securities market upon performing the oversight of the securities settlement systems in accordance with the ESCB-CESR recommendations. Therefore the Bank of Latvia and the FCMC cooperate in addressing the issues of the operation and development of the securities settlement systems.

In 2012, the Bank of Latvia in cooperation with the FCMC assessed DENOS as compliant with the ESCB-CESR recommendations for the securities settlement systems, based on the self-assessment made by the LCD. Such an assessment is essential for the oversight purposes and is also one of the provisions for signing the T2S Framework Agreement. The Bank of Latvia performed the compliance assessment of DENOS against the ESCB-CESR recommendations for the securities settlement systems. As regards Recommendations I, III, VI and XVI, the Bank of Latvia issued guidances to the LCD and suggested that the above should be taken into account to the extent that the efficiency of DENOS was not impaired. The Bank of Latvia Report is published on the Bank of Latvia website (http://www.bank.lv/images/stories/pielikumi/publikacijas/MSP_GP_2011_en.pdf).).

To assess the liquidity conditions regarding the settlements in DENOS and notice the potential signs of operational risk on a timely basis, the Bank of Latvia conducted a day-to-day or ongoing oversight in 2012, analysing the statistical data of DENOS and the system's availability as well as performing the incident evaluation and analysing their impact on other systems.

Analysis of the system's statistical data

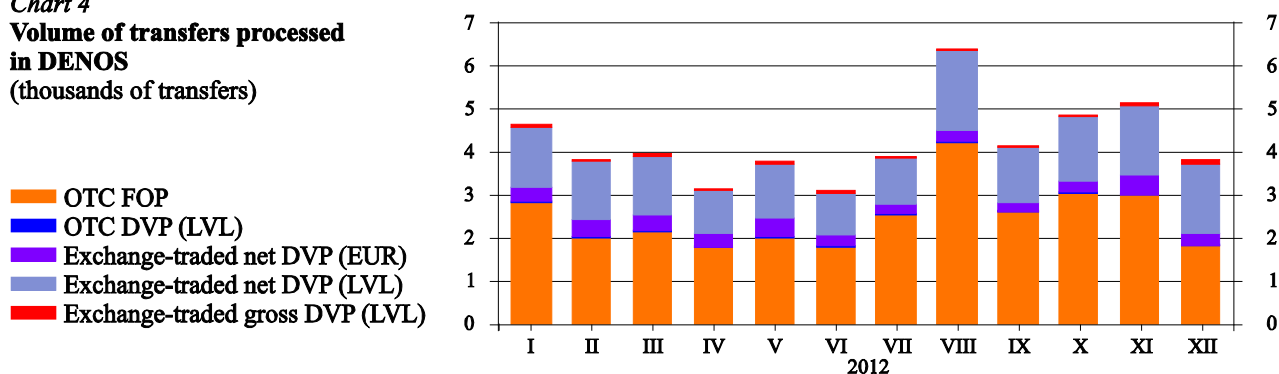
Complete information on the securities transfers processed in DENOS was reported by the FCMC to the Bank of Latvia on a weekly basis in 2012, and at a monthly frequency, the Bank compiled the reported detailed data on turnover of DENOS for the previous month, five largest participants in DENOS and efficiency of using settlement funds for the transfers processed in net settlement cycle over the previous month.

At the end of 2012, the number of DENOS participants amounted to 22. The Bank of Latvia, 16 credit institutions, one investment brokerage firm and four link CSDs were the participants in DENOS. The number of participants increased year-on-year, since the LCD established a link with *Krajowy Depozyt Papierów Wartościowych S.A.* The JSC *Latvijas Krājbanka* still held the status of the LCD's suspended participant to ensure that all persons having opened a securities account with the JSC *Latvijas Krājbanka* could transfer their securities to a new securities account by 30 November chosen at their discretion with another LCD participant. The volume of OTC FOP transfers rose in the second half of the year on account of the above transfers (see Chart 4). Securities still held by the JSC *Latvijas Krājbanka* after the stipulated date were submitted for public auction pursuant to the Law "On Credit Institutions". The auction was held on 18 December 2012 by applying Stock Exchange-traded DVP gross settlement.

The LCD has provided DVP settlements in lats, euro and US dollars for its participants until now. The LCD has also enabled DVP settlement in Russian rubles as of 2012; however, DVP transfers were not handled in the above foreign currency in 2012.

In 2012, the volume of transfers via DENOS declined by 18.9% year-on-year and totalled 50.2 thousand transfers per annum. Of the above transfers, 29.8 thousand (59.3%) were OTC transfers, while other were the transfers of transactions executed at the Stock Exchange. Of total transfer volume, 29.4 thousand (58.5%) were FOP transfers, while the remaining were DVP transfers. Of all DVP transfers, 17.1 thousand (82.1%) were transfers executed in lats and 3.7 thousand (17.6%) were those made in euro. The volume of DVP transfers executed in other foreign currencies was insignificant (see Chart 4). The declining transfer volume was primarily attributable to a decrease in the transactions executed during the Stock Exchange continuous trading and redemption of investment fund units. Such a fall in the transfer volume is on account of an increasing cautiousness of investors with respect to the equity investment.

Chart 4
Volume of transfers processed in DENOS
(thousands of transfers)



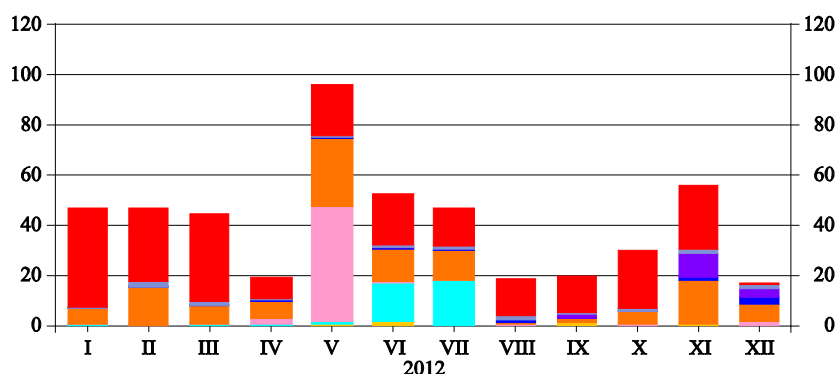
In 2012, the value of DVP transfers via DENOS shrank by 26.5% year-on-year, totalling 492.1 million lats per annum (including the transfer value of transactions executed at the Stock Exchange – 284.2 million lats or 57.8%). The transfer value of transactions executed in lats was 380.1 million lats (77.2% of the total value of DVP transfers). The

transfer value of the lats transactions executed at the Stock Exchange in net settlement amounted to 13.6 million lats (2.8% of the total value of DVP transfers made in lats) and the value of such transfers processed in gross settlement was 247.6 million lats (50.3%), while the value of OTC transfers stood at 118.9 million lats (24.2%). The total value of DVP transfers made in other foreign currencies amounted to 112.0 million lats (22.8%; see Chart 5). A declining value of DVP transfers was primarily attributable to the decreasing DVP gross settlement of transfers executed at the Stock Exchange, i.e. shrinking transfers related to the transactions of the government debt securities' auctions. This reduction is on account of a declining need for the Latvian government funding.

Chart 5

Value of transfers processed in DENOS
(in millions of lats)

■ OTC DVP (LTL)
 ■ OTC DVP (USD)
 ■ OTC DVP (EUR)
 ■ OTC DVP (LVL)
 ■ Exchange-traded net DVP (EUR)
 ■ Exchange-traded net DVP USD
 ■ Exchange-traded net DVP (LVL)
 ■ Exchange-traded gross DVP (LVL)



The LCD notified the Bank of Latvia of the operational problems incurred by DENOS or its maintenance resources and the solution thereof upon using the Bank of Latvia file exchange service. The Bank of Latvia monitored the problem-solving process and assessed the impact of each incident on the SAMS and its ancillary systems as well as the Bank of Latvia's monetary policy operations and intraday credit operations.

In 2012, DENOS availability was 99.6% (99.9% in 2011).

Risk assessment

The Bank of Latvia performed a detailed risk assessment of the transfers made in lats via DENOS, since cash settlement of the above transfers may affect the SAMS operation. It was taken into consideration upon the risk assessment of transfers executed in the DENOS that the settlement risks may be related both to cash settlement and securities settlement in the securities settlement systems.

A. Assessment of risk related to cash settlement in lats

Similar to the payment systems, the Bank of Latvia analysed three indicators in order to assess the risks of DVP transfers made in lats via DENOS in 2012: 1) the volume and value concentration ratios of DVP transfers (total gross and net DVP) made in lats; 2) the volume and value concentration ratios of net settlement (net DVP) of the lats transfers; 3) the netting effect ratio of the DVP net transfers executed in lats. The Bank also reviewed the settlement risk mitigation procedures incorporated in the LCD regulations.

In 2012, the annual concentration ratios of DVP transfers (total gross and net DVP) made in lats and processed by DENOS amounted to 86.3% and 84.3% in terms of volume and value (87.0% and 73.2% respectively in 2011). The volume and value concentration ratios exceeding 80% point to systemic risk. The rising value concentration ratio of DENOS points to an aggravating systemic risk in DVP settlement

in lats in 2012. However, the LCD regulations stipulate the procedures for the settlement risk containment, and the settlement in lats is executed via the SAMS where the participants have substantial account balances, hence the probability of systemic risk materialisation is low. The total value of DVP transfers made in lats and processed in DENOS only amounted to 0.3% of the total value of payments processed in the SAMS (0.4% in 2011).

In 2012, the annual concentration ratio of DVP net transfers made in lats and processed in DENOS stood at 87.2% and 90.4% in terms of the transfer volume and value respectively (90.9% and 95.9% in 2011). The declining value and volume concentration ratios point to a shrinking systemic risk; however, the above risk exceeds 80% and still indicates a systemic risk in the DVP net settlement of the transactions executed at the Stock Exchange in lats. Only transfers based on the transactions executed at the Stock Exchange are processed on such settlement basis. The Stock Exchange runs a Guarantee Fund that may be enacted subject to a decision taken in case a participant has insufficient funds for settling the transactions executed during the Stock Exchange continuous trading. In addition, the LCD regulations stipulate an option to organise a second settlement cycle in case a participant has insufficient amount of funds at the moment of settlement. Given the above procedures and the fact that the value of transfers processed in net settlement cycle is very small and the relevant settlement is made via the SAMS where the participants have substantial account balances, the probability of systemic risk materialisation is low. In terms of value, the DVP net transfers made in lats and processed in DENOS only amounted to 0.01% of the total value of payments processed in the SAMS (0.02% – in 2011).

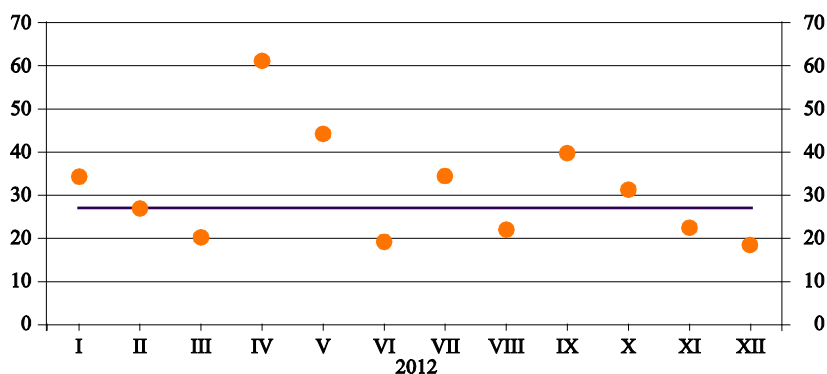
Overall, the LCD and Stock Exchange apply the following risk mitigation procedures aimed at containing the cash settlement related risk: DVP is applied to all cash settlement related transfers, ensuring the settlement finality; provision of an option to arrange an additional net settlement cycle to enable the settling of transactions executed at the Stock Exchange, if funds are insufficient during the first cycle; the procedures established by the Stock Exchange Guarantee Fund are applied to complete the continuous trading related settlement at the Stock Exchange in case any participant has insufficient funds for effecting such settlement; rolling over a transfer instruction to the next day's settlement cycle, if the transfer is not settled in the first or second cycle due to the insufficiency of funds.

In 2012, the netting effect ratio (i.e. the system participants' net debit positions as a percentage of the system's gross transaction value) of DVP transfers made in lats and processed in net settlement cycle of DENOS amounted to 26.9% (29.3% – in 2011; see Chart 6). A netting effect ratio below 10% points to a significant risk, hence the netting effect did not point to a significant risk in 2012.

Overall, it can be concluded that, given the settlement risk containment procedures applied by the LCD and Stock Exchange and current value of settlement funds, the probability of the systemic risk materialisation has remained low.

Chart 6
The netting effect ratios of
DVP transfers made in lats
via DENOS
(%)

● Monthly ratio
— Annual ratio



B. Assessment of risk related to the securities settlement

To assess risks related to the securities settlement in DENOS, the Bank of Latvia took account of the information submitted by the LCD about the default transaction indicators and evaluated the changes in the securities settlement procedures implemented in 2012.

According to the data reported by the LCD, more than 99.99% of the transactions are settled in DENOS on the planned settlement date in terms of volume and value respectively (the same as in the previous year), while, out of 0.01% transactions outstanding on the settlement date, 99.99% are settled within one or two business days of the outstanding transaction date.

In the previous year, the Bank of Latvia assessed the risk containment procedures incorporated into the LCD regulations as adequate; hence the Bank of Latvia evaluated only the changes in the securities settlement procedure of the DENOS effected in 2012.

In May 2012, the LCD made amendments to the LCD regulations defining more precisely the settlement finality in DENOS and stipulating the exact time for the entry of the settlement order, its irrevocability and settlement finality in all LCD regulations pertaining to the securities settlement procedures. The above amendments will prevent the legal risk (the risk of interpretation of the LCD regulations) in the event of a system participant's insolvency and will improve the settlement security in the DENOS.

In November 2012, the LCD amended the LCD regulations so as to enable the LCD participants to submit the OTC DVP and FOP transfers for the settlement in DENOS, specifying the intended settlement date as a date preceding the above submission date (past date). The purpose of the above amendments is to harmonise the settlement with the Estonian CSD *Eesti Väärtpaberikeskus AS* and Lithuanian CSD *Vertybinių popierių atsiskaitymo sistema* by preparing the DENOS for the settlement on T2S platform which provides for such functionality, and thus reduce the default transactions.

Overall, the probability of systemic risk in relation to the securities settlement is minimal, since DENOS and Stock Exchange have established the procedures applicable in case a participant in DENOS has insufficient number of securities and statistics regarding the failure to transfer securities confirms that the set of the implemented measures is adequate.

The concentration ratios of DENOS pointed to high systemic risk, while the settlement risk containment procedures applied by the LCD and the Stock Exchange, netting effect

ratio, indicator of the transaction execution, settlement value and other provisions suggested that overall, the probability of systemic risk materialisation remained low.

2. RETAIL PAYMENT SYSTEMS

The Bank of Latvia proceeded with the oversight of four retail payment systems operating in Latvia, compiled statistical data and analysed the development of the above systems. The performed data analysis suggested that it was not necessary to implement additional measures of risk containment in the systems.

2.1 The EKS

In 2012, the EKS was a systemically prominent retail payment system. In 2012, the volume of the payments executed in lats and processed in the EKS declined by 3.0% year-on-year, totalling 33.5 million per annum, while the total value rose by 0.9%, reaching 12.2 billion lats per annum. The EKS processed 703.8 thousand payments in the total value of 6.2 billion euro in the euro settlement. The EKS availability stood at 99.80%. The analysis of systemic risk pointed to a minimal probability of systemic risk.

In 2012, the EKS was a systemically prominent retail payment system used for the execution of retail payments in lats and euro. The EKS is an ACH (Automated Clearing House) system where payment processing is fully automated and only electronic payment documents are accepted and processed. The EKS final settlement in lats is effected in the participants' accounts opened with the Bank of Latvia in the SAMS, while that in euro is executed in the participants' accounts opened with the Bank of Latvia in TARGET2-Latvija.

In 2012, the Bank of Latvia updated the self-assessment of the EKS SEPA in accordance with the ECB "Terms of Reference for SEPA Compliant Infrastructures". The self-assessment confirms the compliance of the EKS with the SEPA requirements and the updated SEPA Credit Transfer Rulebooks. The EKS self-assessment is published in the SEPA Section of the Bank of Latvia's website and in the Self-assessment Section of SEPA Latvia website.

A day-to-day or ongoing oversight of the EKS was performed in 2012 by collecting and analysing the system's statistical data and monitoring the system's operation in order to identify potential signs of the operational risk (Core Principle VII) on a timely basis.

Analysis of the system's statistical data

At the beginning of each month of 2012 (similar to the SAMS), the Bank of Latvia compiled data on the payments executed via the EKS in the previous month. The above data were published on the Bank of Latvia website on a monthly basis and detailed data were used for compiling the Bank of Latvia reports.

At the end of 2012, 25 credit institutions (including five branches, registered in Latvia, of credit institutions registered in other countries), the Treasury and the Bank of Latvia were the participants in the lats settlements via the EKS. *Pohjola Bank plc* Latvia Branch joined the EKS in the capacity of a direct participant for the settlements in lats. 17 credit institutions (including one branch, registered in Latvia, of a credit institution registered in another country), the Treasury and the Bank of Latvia participated in the

EKS euro settlement. JSC *Latvijas Biznesa banka* and *Rigensis Bank AS* commenced their participation in the EKS for the settlement in euro.

In 2012, the total volume of payments executed in lats through the EKS shrank by 3.0% year-on-year (to 33.5 million), while the value rose by 0.9%, reaching 12.2 billion lats per annum. The decline in the total volume of the payments made in lats via the EKS in 2012 is attributable to the termination of participation by the JSC *Latvijas Krājbanka* in the EKS at the end of 2011. The average value per payment made in 2012 expanded to 362.40 lats (348.14 lats in 2011). Of all lats payments submitted and processed daily in the EKS, the payments made in lats via the EKS were mainly processed in the first clearing cycle (from 8:30 a.m. to 10:30 a.m.), amounting to 70.3% and 57.7% in terms of volume and value respectively (see Charts 7 and 8).

Chart 7
Volume of lats payments processed in the EKS
 (in millions)

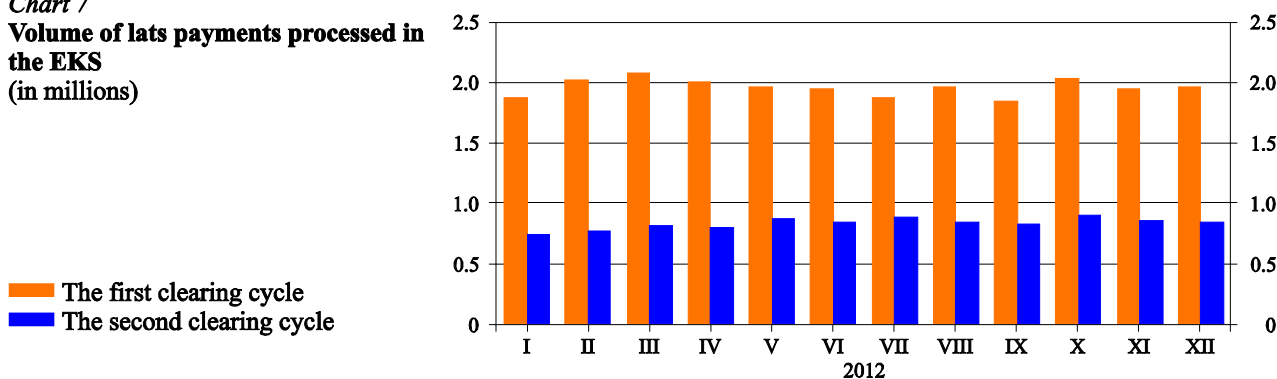
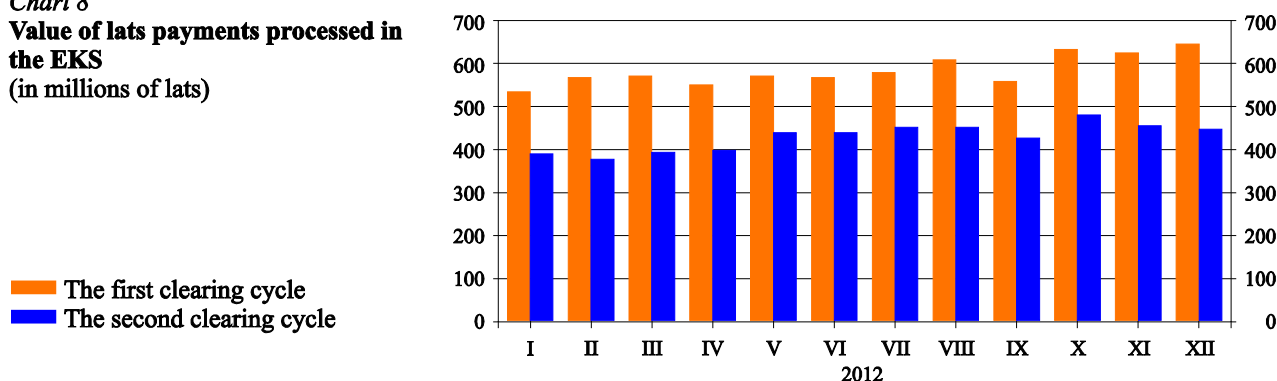


Chart 8
Value of lats payments processed in the EKS
 (in millions of lats)



The total volume of payments processed in the EKS in euro increased by 51.7% (to 703.8 thousand) while their total value expanded 2.2 times (to 6.2 billion euro; see Charts 9 and 10). The average value per payment executed via the EKS in euro stood at 8 802 euro in 2012 (6 140 euro – in 2011). The increase in the total volume of the euro payments processed in the EKS was attributable to the payments made by the EKS participants and payments executed by foreign credit institutions to the participants in the EKS via SEPA Clearer, the system of *Deutsche Bundesbank*. At the same time, the payments effected by the EKS participants were the main contributors to the expanding total value.

On the basis of the data entered into the Incident Register, the overseers were promptly notified of the operational problems incurred by the EKS or its maintenance resources and the solution thereof, and they monitored the problem-solving process accordingly.

Chart 9
Volume of euro payments processed in the EKS (in thousands)

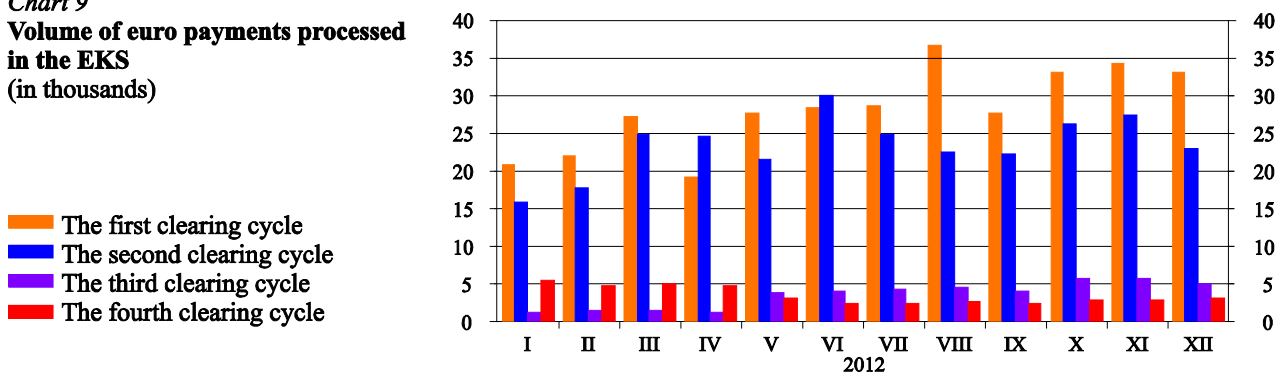
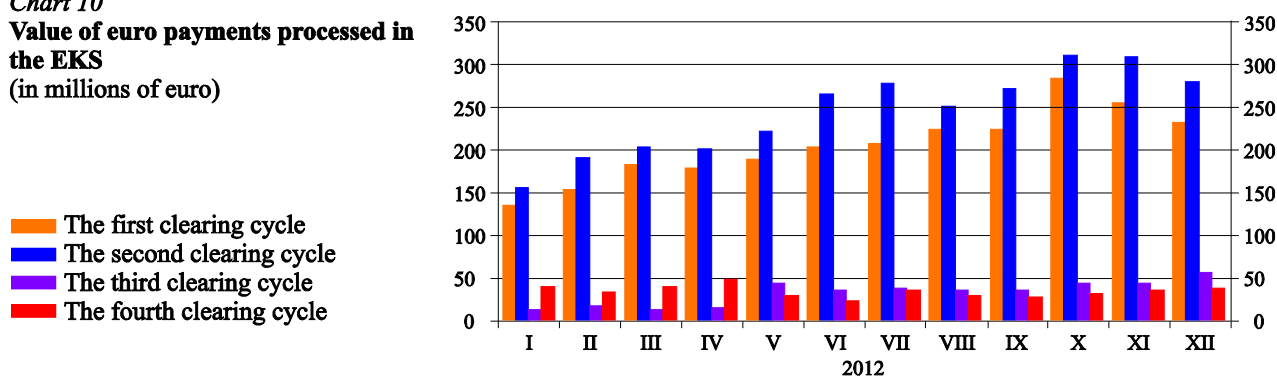


Chart 10
Value of euro payments processed in the EKS (in millions of euro)



The EKS availability was 99.80%, i.e. such a share of the entire EKS net position or offsetting settlement was executed within the stipulated time frame. Overall, only three settlement delays exceeded 30 minutes of the clearing cycle time in 2012 due to a discontinuity of the Bank of Latvia's critical process.

In the event of the discontinuity of the Bank of Latvia's critical processes the Bank assessed the impact of an incident on the SAMS and its ancillary systems. The disruptions in the EKS did not affect other systems and the liquidity of participants, the default was not identified since such disruptions were eliminated on a timely basis and settlement in the EKS was completed.

Risk assessment

Pursuant to the ECB document *Oversight Standards for Euro Retail Payment Systems*, clearing and retail payment systems are deemed systemically important payment systems, if such systems process more than 75% of payments executed in the relevant segment and volume of payments executed therein exceeds 10% of the transaction value of the relevant large-value interbank payment system. As regards systemically important retail payment systems, the concentration ratio and netting effect ratio are analysed additionally, since these ratios may point to high systemic risk, should both of them exceed certain limits at the same time.

Retail payment systems that do not meet the criteria of a systemically important retail payment system are deemed to be systemically prominent systems, if such systems process more than 25% of payments executed in the relevant segment.

In 2012, of all customer credit transfers executed among the credit institutions in Latvia in lats (including branches, registered in Latvia, of credit institutions registered in other

countries) 71.7% and 73.4% were processed in lats via the EKS in terms of volume and value respectively (74.7% and 75.4% respectively in 2011).

The total value of the payments executed in lats and euro via the EKS (in the lats equivalent) amounted to 16.5 billion lats in 2012, or 6.83% of the total value of payments processed in the SAMS and TARGET2-Latvija in the lats equivalent.

Hence the EKS was a systemically prominent retail payment system in 2012. However, given the relatively high importance of the EKS in the settlement of the lats payments, in 2012, the Bank of Latvia also analysed in addition to the concentration ratio and netting effect ratio of the payments executed in lats via the EKS.

In 2012, the volume concentration ratio of the payments made in lats via the EKS rose to 81.4% and the value concentration ratio increased to 81.0% (69.2% and 70.4% respectively in 2012).

Pursuant to the ECB document *Oversight Standards for Euro Retail Payment Systems*, the concentration ratio exceeding 80% points to a systemic risk, where the netting effect ratio is below 10%.

In 2012, the netting effect ratio of the payments executed via the EKS in lats in the first and second clearing cycle (i.e. the system participants' net positions as a percentage of the system's gross transaction value) amounted to 24.0% in the first clearing cycle and 17.3% in the second clearing cycle (24.6% and 18.0% in 2011 respectively). Systemic risk remains low in the EKS since the netting effect ratio substantially exceeds 10%.

2.2 The FDL

The FDL qualified as a systemically prominent retail payment system in Latvia. Within the scope of the oversight, the Bank of Latvia requested the FDL to submit semi-annual data on the card transactions processed in the FDL. In 2012, the market share of transactions conducted at terminals with credit institution cards and processed via FDL shrank.

Within the scope of the oversight, the Bank of Latvia requested the FDL to submit semi-annual data on the volume and value of processed card transactions, serviced customers, concentration and net settlement positions. The aggregated data were used for monitoring the FDL developments with respect to the card payments as well as for the purpose of comparing the above data with those on the payment card transactions reported by credit institutions. The data reported by the FDL were not published subject to the principle of confidentiality.

In 2012, the FDL provided the payment card authorisation and calculated the card transaction net positions in lats. In 2012, the total value of the final settlement of FDL processed via the SAMS was higher in comparison with that of the final settlement of the card payment system *MasterCard Europe Spri* and very similar to that of the card payment system *Visa Europe Services Inc*.

As regards international transactions, some Latvian credit institutions had concluded direct agreements with international card scheme centres or they could also execute card payments through parent banks or their payment card authorisation centres. The Bank of Latvia has analysed the market share of the FDL in the total Latvian credit institution transactions effected with credit institution cards at terminals; however, the above data

are deemed restricted information and are not disseminated. The market share of the FDL has narrowed in 2012 in comparison with 2011, albeit the FDL has still maintained the status of a systemically prominent system.

Net position settlement of payments processed via the FDL was executed among credit institutions in the SAMS each business day, while the payments made in Latvia with cards issued outside the country and transactions effected abroad with cards issued in Latvia were settled at the international card scheme centres.

2.3 Postal settlement system (PNS)

The Bank of Latvia compiled data on the PNS. The PNS processed 9.0 million transactions in the total value of 0.6 billion lats. The volume of PNS customer payments declined by 5.1% and the value shrank by 2.2% year-on-year.

In 2012, the Bank of Latvia requested *Latvijas Pasts*, within the scope of the oversight, to submit data on the payments processed via PNS in the first and second half of the year. The payment statistics was published on the Bank of Latvia website. On 10 November 2000, an agreement was reached regarding the incorporation of PNS statistical data into the report on Latvia's payment statistics with *Latvijas Pasts* in writing.

In 2012, *Latvijas Pasts* continued to maintain the network of post offices and ensure the provision of payment services, offering credit transfer services to its customers. The total volume of PNS customer payments shrank by 5.1% and total value decreased by 2.2% year-on-year. The average value per payment was 69.98 lats in 2012. PNS processed 3.4% (9.0 million transactions) of the customer payments executed in Latvia, however, the value of such transactions only amounted to 0.2% (0.6 billion lats) of the total value of customer payments made in Latvia.

2.4 JSC *Itella Information* system

As in the previous years, the JSC *Itella Information* was the only company providing infrastructure for interbank direct debit payments in Latvia also in 2012. In 2012, the AMS was a systemically prominent retail payment system. The Bank of Latvia compiled data on the JSC *Itella Information* and statistical data on the AMS.

The JSC *Itella Information* provides diverse payment related services, including the processing of direct debit payments by the AMS, enabling the straight-through processing of invoices related to the mutual settlement between the customers, companies and credit institutions, while credit institutions execute cash settlement of automated payments outside AMS.

In 2011, within the scope of the oversight, the Bank of Latvia requested the JSC *Itella Information* to submit data on the volume and value of direct debit payments processed in the first half and second half of the year, five largest participants in the system and information on the number of agreements concluded with credit institutions, companies and customers. The data reported by the JSC *Itella Information* were not published subject to the principle of confidentiality.

In 2012, the Bank of Latvia convened a meeting with the representatives of the JSC *Itella Information* to debate about the implementation of the recommendations regarding

the self-assessment of the AMS. The JSC *Itella Information* provided information on the termination of direct debit payment servicing pursuant to the Regulation of the European Parliament and of the Council of 16 December 2010 establishing technical requirements for credit transfers and direct debits in euro and amending Regulation (EC) No. 924/2009, COM (2010) 775 (hereinafter, the SEPA Regulation) as of January 2015. The JSC *Itella Information* did not renew the cooperation agreements in 2012, considering also the market participants' agreement not to develop SEPA direct debit infrastructure in Latvia but to search for an alternative solution for the SEPA direct debit payments in order to replace the national direct debit payments as of 1 January 2015. The JSC *Itella Information* intends to ensure the compliance with Core Principle II in 2015 upon entering into the relevant cooperation agreements with the participants anew, following the implementation of the new services (the currently operating system will be adjusted for the euro operations and automated invoicing introduced), while other directions and recommendations have already been implemented.

2.5 Risk-based assessment of Latvia's payment systems

In 2012, the Bank of Latvia conducted an assessment of Latvia's payment systems, based on the data for 2011, in accordance with the updated risk-based assessment methodology developed by the ECB. The first assignment of the assessment supported the oversight priority of focusing primarily on the SAMS, including its day-to-day oversight, as stipulated by "The Bank of Latvia's Payment and Securities Settlement System Policy". Based on the results obtained during the first step of the risk-based oversight assessment, the Bank of Latvia carried out the second assignment of the above oversight assessment, assessing in detail the effect and the probability of risks and the measures of risk containment in the SAMS. The assessment supported the need for a day-to-day oversight stipulated by "The Bank of Latvia's Payment and Securities Settlement System Policy" and performed by analysing the technical and operational functions of the systems (see Appendix 2 for the Oversight Report).

In 2012, the Bank of Latvia conducted the assessment of Latvia's payment systems, based on the data for 2011 in line with the updated risk-based assessment methodology developed by the ECB. According to the above methodology, the assessment of the payment systems has to be performed in three steps. During the first step payment systems are mutually compared by determining their significance and oversight status. The assessment resulting from the mutual comparison of the payment systems is used for defining further priorities for the payment system oversight. In the second step, the major payment systems have to be assessed against the risk categories, taking into account the impact of a specific risk, its probability and the risk mitigation measures implemented. The ECB will be responsible for the third step, where the assessments of the payment systems made during the second phase in several countries are to be compared in order to obtain a consolidated report regarding the risk categories common to the majority of the payment systems operating in the EU.

In the first assessment phase, the Bank of Latvia assessed all payment systems of Latvia: the systems maintained by the Bank of Latvia (the SAMS, EKS and TARGET2-Latvija), the FDL, AMS and PNS. The assessment supported the oversight priority of focusing primarily on the SAMS, including its day-to-day oversight, as stipulated by "The Bank of Latvia's Payment and Securities Settlement System Policy".

Based on the results obtained during the first step of the risk-based oversight assessment, the Bank of Latvia carried out the second step of the above oversight assessment, assessing in detail the effect and probability of risks and the measures of risk containment in the SAMS. The oversight priorities regarding the system's risk and its components were established. It follows from the assessment results that the oversight of the SAMS should focus primarily on the operational risk. The assessment supported the need for a day-to-day oversight stipulated by "The Bank of Latvia's Payment and Securities Settlement System Policy" and performed by analysing the technical and operational functions of the systems. Detailed findings are presented in Appendix 2.

3. PAYMENT INSTRUMENTS

Pursuant to the "Bank of Latvia's Payment and Securities Settlement System Policy", data on payment instruments used in Latvia in 2012 were compiled and analysed. In 2012, the development of payment instruments followed a steady course and hence it was not necessary to implement the risk containment measures related to the use of payment instruments.

The Bank of Latvia (overseers) continued to compile statistical data on payment instruments, based on the Bank of Latvia Regulation No. 74 "Regulation for Compiling 'Credit Institution and Electronic Money Institution Payment Statistics Report' " of 12 May 2011. The overseers collect statistical data from the Treasury subject to an agreement and from *Latvijas Pasts* – subject to an arrangement, and the above data are compiled in accordance with the methodology stipulated by the "Regulation for Compiling 'Credit Institution and Electronic Money Institution Payment Statistics Report' ". The overseers provided a brief analytical insight into the area of payment systems on the website.

Analysing the data submitted by credit institutions and the FDL, the Bank of Latvia monitored the development of payment card, terminal and ATM networks.

3.1 Development of payment instruments

Data on Latvia's payment statistics were surveyed on a semi-annual basis. Latvia's payment statistics is compiled on the basis of the data from the "Credit Institution and Electronic Money Institution Payment Statistics Report", submitted until 25 July and 25 January by all credit institutions registered in Latvia, including the branches registered in Latvia of credit institutions registered in other countries (hereinafter, the credit institutions) also the Bank of Latvia, the Treasury, *Latvijas Pasts* and electronic money institutions (hereinafter, the payment market participants).

In 2012, the total volume and value of customer payment instruments used in Latvia expanded by 10.7% (to 264.0 million) and 15.6% (to 345.6 billion lats) respectively.

Of all customer payment instruments, the volume of payments executed in lats amounted to 91.7%, that in euro stood at 4.9% and in other currencies – 3.4% (see Chart 11). In terms of value, the majority of payments (63.5%) were made in other currencies, 18.6% were executed in euro and 17.9% – in lats (see Chart 12).

Chart 11
Volume of payments by currency
in 2012
(in millions)

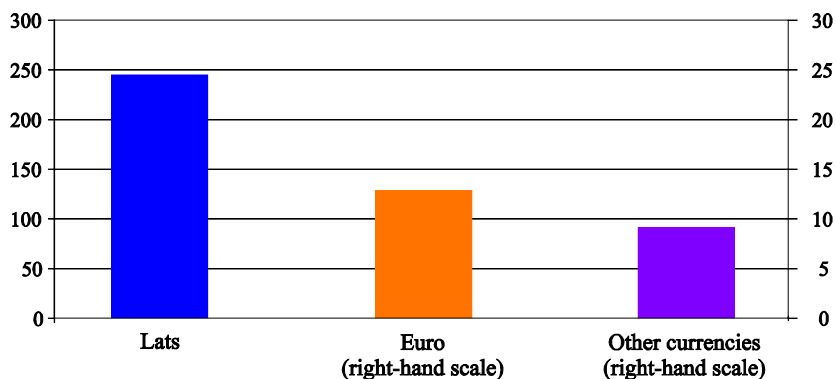


Chart 12
Value of payments by currency
in 2012
(in billions of lats)

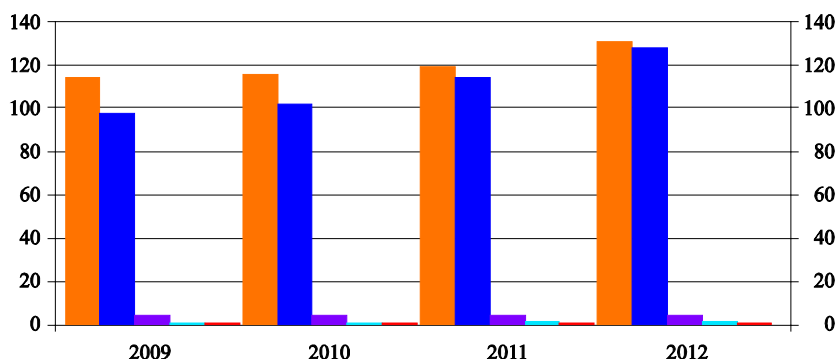


The concentration ratio of five payment market participants in the total volume of customer payments executed in lats amounted to 86.6%, while in that of customer payments made in euro the above ratio was 81.5% and in other currencies it stood at 71.8%. The concentration ratio of five payment market participants in the total value of customer payments made in lats comprised 85.4%, while in that of customer payments executed in euro and in other currencies it stood at 59.3% and 65.1% respectively.

Assessing the use of individual payment instruments, customer credit transfers and card payments (49.4% and 48.5% respectively) were used most frequently of all customer payment instruments in Latvia in terms of volume (see Chart 13). In terms of value, customer credit transfers and card payments amounted to 99.4% and 0.6% respectively. Year-on-year, the volume and value of customer credit transfers rose by 9.2% (to 130.3 million) and 15.6% (to 343.6 billion lats) respectively. The expansion was mainly attributable to a rise in the value of customer credit transfers initiated via Internet in other currencies (26.3%). The volume of card payments recorded a year-on-year growth of 12.3% (to 128.0 million), and their value increased by 16.3% (to 1.9 billion lats).

Chart 13
Customer payment instruments in
Latvia
(in millions of payments)

- Customer credit transfers
- Card payments
- Direct debits
- E-money payments
- Cheques



Payments executed by credit institution customers accounted for the largest share in the total customer payments in terms of volume and value (91.6% (241.9 million) and 96.1% (332.0 billion lats) respectively). The share of payments executed by the Treasury's customers amounted to 4.9% (13.0 million) and 3.6% (12.5 billion lats) in terms of the volume and value respectively, and the share of payments made by *Latvijas Pasts* customers stood at 3.4% (9.0 million) and 0.2% (0.6 billion lats) in terms of the volume and value respectively. The payments made by the Bank of Latvia's customers accounted for the remaining share.

Of credit institution customer payments, card payments accounted for the majority (128.0 million or 52.9%) in 2012. Of the volume of credit institution customer payments, credit transfers amounted to 44.7% (108.2 million), direct debits were 1.8% (4.3 million) and e-money payments stood at 0.6% (1.5 million). 11.9 thousand cheque payments were also made.

Credit transfers made by five payment market participants amounted to 85.0% and 52.3% of all customer credit transfers made in Latvia in terms of the volume and value respectively.

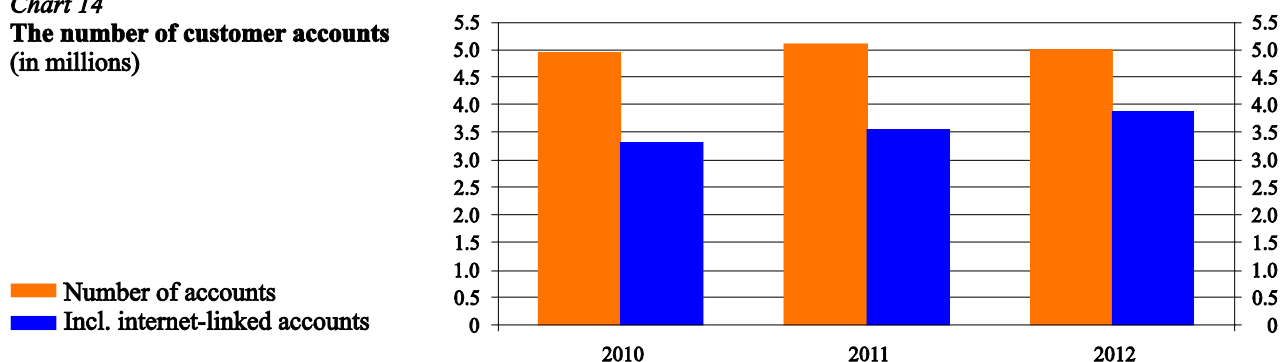
At the end of 2012, credit institutions had issued 2.4 million payment cards (a-year-on-year increase of 58.0 thousand cards). At the end of 2012, payment cards were offered by 22 credit institutions in Latvia. The majority of cards (78.5%) were issued by three credit institutions. Their share in the total volume and value of card payments executed in Latvia stood at 83.1% and 68.7% respectively. In Latvia, 1 270 ATMs, of which 64.2% were serviced by three credit institutions, and 187 ATMs with cash deposit function were installed in Latvia at the end of 2012. Three credit institutions serviced 82.6% of 24.6 thousand POS terminals.

In 2012, the overseers compiled data on the payment card transactions at terminals. The data on card payments and other transactions at POS terminals and ATMs were reported under this item, recording separately the transactions executed at terminals located in the country with cards issued in the country, transactions executed at terminals located in the country with cards issued outside the country and transactions executed at terminals located outside the country with cards issued in the country.

In 2012, 185.7 million transactions were executed at terminals (a year-on-year rise of 9.0%), with their total value reaching 6.6 billion lats (a year-on-year increase of 8.9%). Transactions at terminals located in the country with cards issued in the country amounted to 86.4% and 77.7% of the total volume and value respectively, transactions at terminals located in the country with cards issued outside the country were 7.1% and 7.7% respectively and transactions at terminals located outside the country with cards issued in the country stood at 6.5% and 14.6% respectively.

At the end of 2012, all cards issued by credit institutions were co-branded with international card organisations (VISA, *MasterCard*, *American Express* etc.). International cards were issued in line with the regulations of the respective card scheme. Card schemes ensured the compliance of credit institutions with the relevant scheme's regulations.

At the end of 2012, the payment market participants had opened 5.0 million customer accounts overall, of them, 77.8% (3.9 million) were internet-linked accounts (see Chart 14). Three credit institutions serviced 67.5% of the total number of customer settlement accounts in Latvia.

Chart 14**The number of customer accounts
(in millions)**

In 2012, 1.5 million e-money payments in the value of 6.1 million lats were executed.

3.2 A survey on correspondent banking arrangement

To assess more accurately the overall payment flows in Latvia within the framework of Latvian payment system oversight, the Bank of Latvia compiled data on the transactions made by correspondent banks in lats, euro and other foreign currencies. The survey has revealed that the volume and value of payments made by Latvian credit institutions on their loro accounts opened within the correspondent banking arrangement is moderate in comparison with the total volume and value of payments executed by the above banks in Latvia's payment system, and additional oversight activities regarding the payments effected by correspondent banks are not required.

In 2012, the overseers conducted a regular survey on correspondent banking transactions (all incoming and outgoing transactions) on credit institution loro and nostro accounts² (the previous survey was conducted in 2010). 23 Latvia's credit institutions participated in the survey conducted from 1 November 2012 until 30 November 2012.

Latvian credit institutions had opened 310 loro accounts for the settlement in lats, 258 loro accounts for the settlement in euro and 538 loro accounts – for the settlement in other currencies. Overall, 35.7 thousand payments in the value of 4.5 billion lats were made from the above accounts over the survey period and 24.3 thousand payments in the value of 4.7 billion lats were received.

In terms of volume, the majority of payments sent from loro accounts were made in euro (41.9%), and in terms of value – the majority were executed in foreign currencies (except the euro; 50.5%). In terms of volume, the majority of payments received on loro accounts were made in lats (44.0%), and in terms of value – the majority were executed in foreign currencies (except the euro; 44.4%).

Latvian credit institutions had opened 43 nostro accounts for the settlement in lats, 326 nostro accounts for the settlement in euro and 1 142 nostro accounts – for the settlement in foreign currencies (except the euro). Overall, 665.8 thousand payments in

² Loro accounts – accounts opened by a credit institution for its correspondent banks subject to the agreement on opening the correspondent account for crediting this account and executing payments on behalf of correspondent banks. Nostro accounts – correspondent accounts of a credit institution opened with the correspondent banks and reporting mutual settlements between the credit institutions and customers.

the value of 140.8 billion lats were made from the above accounts over the survey period and 418.9 thousand payments in the value of 142.1 billion lats were received.

The majority of payments sent from nostro accounts were made in foreign currencies (except the euro) both in terms of the volume and value (56.0% and 77.8% respectively). The majority of payments received on nostro accounts were also executed in foreign currencies (except the euro) both in terms of the volume and value (58.0% and 77.8% respectively).

In 2012, upon comparing the payments made from loro accounts by the credit institutions participating in the survey with their interbank and customer payments, the payments on loro accounts in foreign currencies (except the euro) accounted for the largest share of payments in terms of the monthly average volume – 1.6% of the monthly average volume of payments executed by the above credit institutions. At the same time, this indicator stood at 1.4% for the payments made in euro and below 0.1% for the payments executed in lats. In terms of value, the payments executed in lats accounted for the largest share of the monthly average payments on loro accounts in 2012 – 16.7% of the value of the monthly average payments effected by the above credit institutions. As regards the value of payments in euro and other foreign currencies, the above indicator stood at 2.5% and 3.8% respectively.

Payments on Latvian credit institution nostro accounts are effected outside Latvia's payment system.

Since the volume and value of payments made by Latvian credit institutions within the framework of correspondent banking arrangement on loro accounts opened with the above credit institutions is moderate in comparison with the total volume and value of payments executed by the above credit institutions in Latvia's payment system, hence any additional oversight activities regarding the payments made by correspondent banks are not required.

3.3 Customer counselling

In 2012, the Bank of Latvia advised natural and legal persons and drafted replies regarding the issues pertaining to the Bank of Latvia's regulations and other payments related matters.

The Bank of Latvia provided explanation to the State Police about the definitions of the legal tender and payment instrument in order to provide support to the Police with respect to the investigation of a criminal case.

Following the assessment of IBAN identifying a credit institution registered in Latvia, the Bank of Latvia provided a reply to the representative office of Loused (Spain) Ministry of Justice regarding the investigation of a case of fraud.

4. SEPA PROJECT

The SEPA Project is one of the Bank of Latvia's projects devoted to the payment system oversight. In 2012, the Bank of Latvia continued its involvement in the SEPA Project by steering the NSWG, taking part in the SEPA Working Group of the Payment Committee of the ACBL and EU Forum of the National SEPA Coordination Committees organised by the EC, as well as developing further the SEPA Project at the Bank of Latvia.

The major goals achieved within the SEPA Project in 2012 were the approval of the SEPA Regulation³ and drafting Version 4.0 of Latvia's National SEPA Plan.

To promote the integration of Latvia's payment systems into SEPA encompassing all European Union Member States, Iceland, Liechtenstein, Norway, Switzerland and Monaco, the Bank of Latvia engaged in the SEPA Project in the capacity of the payment system overseer. The overseers continued to steer the NSWG, coordinating the cooperation among the representatives of the payment market supply side (ACBL, *Latvijas Pasts*, FDL, JSC *Itella Information*, Latvian Information and Communications Technology Association) and representatives of the demand side (the Consumer Rights Protection Centre, SMECCC, ECL, Treasury, Ministry of Finance of the Republic of Latvia and Bank of Latvia). The representatives of the respective institutions and associations coordinated, within the scope of their competence, the assignments of integration into SEPA. The MPSWG supervised the activities of the NSWG.

At the end of 2012, the SEPA credit transfers amounted to 97.6% of all credit transfers made in euro in Latvia. 100% of ATMs, 99.3% of POS terminals, 99.5% of debit cards and 99.3% of credit cards were consistent with the SEPA requirements.

On 14 March 2012, the SEPA Regulation establishing technical and business requirements for credit transfers and direct debits in euro and end-dates for SEPA migration was adopted. The NSWG coordinated the debates among the market participants regarding the requirements of the above Regulation.

³ The Regulation (EU) No. 260/2012 of the European Parliament and of the Council of 14 March 2012 establishing technical and business requirements for credit transfers and direct debits in euro and amending Regulation (EC) No. 924/2009, supplementing the current legal framework for payment services in the EU.

Reviewing Latvia's National SEPA Plan, the market participants agreed not to develop SEPA direct debit infrastructure in Latvia but to search for an alternative solution for SEPA direct debit payments to replace the national direct debit payments as of 1 January 2015. The NSWG made the relevant amendments to Latvia's National SEPA Plan regarding SEPA direct debit payment infrastructure and corrected high level SEPA implementation measures in Annex 1 "Action Plan for Introduction of the Single European Currency in Latvia" to Latvia's National Euro Changeover Plan.

The goals accomplished by the overseers in SEPA Project in 2012 have been described in Appendix 3 hereto.

5. TARGET2-SECURITIES PROJECT

T2S is the most significant Bank of Latvia's project within the framework of the securities settlement system oversight. The above Project will be completed when the Bank of Latvia and LCD go live with T2S and settlement platform is launched (projected in June 2015). In 2012, the Bank of Latvia continued its involvement in T2S project by steering the Latvian T2S User Group along with the LCD, participating in the ECB Working Group on T2S as well as promoting the development of T2S Project at the Bank of Latvia.

In 2012, T2S *Feasibility Assessment* regarding the Bank of Latvia's readiness to go live with T2S was completed.

To promote integration of Latvia's securities settlement systems into the harmonised process of securities settlement of the EU Member States in euro, the Bank of Latvia engaged in T2S Project. The settlement of securities transactions will be harmonised and cross-border settlement costs incurred by the securities market participants will be reduced as a result of implementing the above Project. The overseers continued to steer the Latvian T2S User Group by coordinating the cooperation among the representatives of the LCD, Bank of Latvia, FCMC, Treasury and ACBL. The representatives of the respective institutions coordinated, within the scope of their competence, the assignments of implementing T2S Project.

In 2012, the Latvian T2S User Group conducted the feasibility assessment for participation in T2S. The overseers, in accordance with the feasibility assessment made, identified no obstacles with respect to the migration to T2S. The LCD, in line with the feasibility assessment made by it, also did not identify any substantial obstacles regarding the migration to T2S, albeit pointed out that the above migration might be hindered due to the following: a moderate volume of euro settlements and uncertainty about the changeover to the euro in Latvia at the time the LCD had to sign the Adherence Agreement (29 June 2012) as well as the necessity to carry out technical adjustment of the DENOS to T2S platform. The LCD also indicated that on 21 June 2012, the LCD Management Board, taking into account the findings of the feasibility assessment, decided to postpone the decision on signing T2S Agreement until autumn 2012, while following the consultation with the LCD participants held in autumn 2012, they decided to take no decision on signing T2S Agreement until the end of summer 2013.

The goals accomplished by the overseers within the Project in 2012 have been described in Appendix 4 hereto.

6. THE OVERSIGHT PROJECT "SOCIAL COSTS OF PAYMENT INSTRUMENTS"

In 2012, the Bank of Latvia finalised "The Bank of Latvia Review of Social Costs of Retail Payment Instruments in Latvia". The goal of the review is to promote the public awareness and understanding of the costs of the most widely used retail payment instruments (cash and non-cash payments), directly associated with the production of payment instruments. According to the Review data, the total social costs of payment instruments in Latvia amounted to 121.5 million lats or 0.9% of GDP in 2009, and social costs of cash payments were 65.8 million lats, accounting for the largest share of the total social costs of payment instruments.

In 2012, the Bank of Latvia finalised "The Bank of Latvia Review of Social Costs of Retail Payment Instruments in Latvia". The Bank of Latvia Report is published on the Bank of Latvia website (http://www.bank.lv/images/stories/pielikumi/publikacijas/bank-of-latvia-review-of-social-costs-of-retail-payment-inst._en.pdf).

The Review was prepared in relation to the ECB study of the social costs of retail payment instruments conducted in the EU in 2009, with the central banks of 13 EU Member States taking part therein. The goal of the review is to promote the public awareness and understanding of the costs of the most widely used retail payment instruments (cash and non-cash payments), directly associated with the production of payment instruments for the general public, mostly individuals, in order to ensure the possibility to make payments in the retail and services sectors, i.e., of the social costs of payment instruments.

The overseers assessed the social costs of retail payments within the Review (i.e., payments which are not urgent and do not exceed an equivalent of 50 thousand euro) made by individuals for the purchase of goods and services in the retail and services sectors. Data on the payment handling costs were provided by the following parties: the Bank of Latvia, five credit institutions, all interbank payment infrastructure operators operating in Latvia, the two major cash-in-transit and processing companies and 29 retailers and companies representing all the branches of the retail and services sectors providing services to individuals. Hence data on the costs of stakeholders involved in the payment chain amounting to 29%–100% of the total of the respective group of payment stakeholders were reported to the Bank of Latvia, and cost extrapolation was performed regarding the remaining amount of non-surveyed data.

According to the above evaluation, 896.5 million payments with the total value of 7.3 billion lats were made in the retail trade and services sectors in 2009. Of them, cash payments accounted for the largest share – 82.3% (737.5 million). Payments made by a payment card, credit transfer and direct debit amounted to 94.1 million payments, 60.5 million payments and 4.4 million payments respectively.

According to the Review data, the total social costs of payment instruments in Latvia amounted to 121.5 million lats or 0.9% of GDP in 2009. As regards 13 EU Member States participating in the ECB survey, the minimum social costs amounted to 0.4% of GDP, the maximum social costs were 1.4% of GDP and the weighted average social costs – 1.0% of GDP. In Latvia, the largest social costs of payment instruments were incurred by credit institutions and the Bank of Latvia (67.1 million lats). The companies social costs amounted to 45.1 million lats, while the costs of cash-in-transit and processing companies and interbank payment infrastructure operators were 9.3 million lats.

Of payment instrument social costs, those of cash payments were the largest ones in Latvia, amounting to 65.8 million lats (0.5% of GDP). In the countries participating in the ECB study, cash payments recorded similar total weighted average social costs (0.5% of GDP). According to the Review data, social costs of credit transfers and card payments were similar (28.5 million lats or 0.2% of GDP and 26.1 million lats or 0.2% of GDP respectively). In the countries participating in the ECB study, the weighted average social costs of card payments and credit transfers amounted to 0.2% of GDP and 0.1% of GDP respectively. As to direct debits, their social costs were the lowest, standing at 1.1 million lats (less than 0.1% of GDP) and 0.1% of GDP respectively both in Latvia and in the countries participating in the ECB study.

In Latvia, credit transfers incurred the largest unit social costs (0.47 lats), with cash payments having the smallest ones (0.09 lats). The unit social costs of a card payment and direct debit payment amounted to 0.28 lats and 0.25 lats respectively. In the countries participating in the ECB study, credit transfers incurred the largest weighted average unit social costs (1.35 lats) while direct debit payment and card payment reported 0.89 lats and 0.70 lats respectively. The weighted average unit social costs of a cash payment were 0.30 lats.

Cash payments and payments by payment card were mostly used in retail trade, hence the value per payment transaction was lower (4.40 lats and 12.24 lats). At the same time, credit transfers and direct debit payments were primarily used to settle for the services and the value of such payments was higher (44.50 lats and 46.49 lats respectively).

In Latvia, external costs or fees paid to other stakeholders amounted to 37.5 million lats in addition to social costs. Card payments recorded the highest external costs (25.8 million lats). External costs of cash payments amounted to 11.0 million lats, those of credit transfers and direct debit payments were 0.4 million lats and 0.3 million lats respectively.

Pursuant to the Review data, the total volume of payments per capita stood at 398 payments in Latvia (in the countries participating in the ECB study – 416 payments). Of them, cash payments amounted to 327 payments, card payments recorded 42 payments, credit transfers were 27 and direct debits – 2 payments.

7. LEGISLATIVE AMENDMENTS

As regards the securities settlement systems, in 2012, the EC proceeded with the development of legal framework covering the CSDs and stipulating the harmonisation of the securities settlement procedure in the EU. In 2012, following the request of the Ministry of Finance of the Republic of Latvia, the Bank of Latvia (overseers) provided comments on the initial position of Latvia regarding the proposal for the Regulation on improving securities settlement in the EU and on central securities depositories and amending Directive 98/26/EC (proposal for the CSD Regulation), and the compromise text of the proposal for the CSD Regulation. On 7 March 2012, the EC adopted a proposal for the *Regulation* on CSDs which was thereafter submitted to the European Parliament and the Council for consideration.

Following the request of the Ministry of Finance of the Republic of Latvia, the overseers issued comments on draft ECOFIN Council conclusion on T2S (including also the proposal for the *Regulation* on CSDs).

On 16 August 2012, the Regulation (EU) No. 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories (European Market Infrastructure Regulation; EMIR) took effect. The above Regulation is applicable to the OTC financial derivatives, central counterparties and trade repositories.

In 2012, the overseers were involved in the review consultations regarding the EC Payment Services Directive, cooperating with the FCMC with respect to drafting the relevant comments and debating about the most topical issues with the ACBL and the Consumer Rights Protection Centre.

In March 2012, the SEPA Regulation establishing technical and business requirements for credit transfers and direct debits in euro was adopted. The Regulation stipulates the requirements to apply IBAN and BIC as account identifiers and XML message standard for making payments. The above Regulation would ensure the reachability of the payment service providers and technical compatibility of payment systems. The overseers, in close cooperation with the market participants, provided full compliance of Latvia's National SEPA Plan with the time frame stipulated in the Regulation.

At the end of 2012, the Bank of Latvia, following the request of the Ministry of Finance of the Republic of Latvia, coordinated the debates among credit institutions and corporates regarding the need to use the derogation, stipulated in the SEPA Regulation, and until 1 February 2016 waive the requirement for the payment service providers to ensure that the payment service users who initiate or receive individual credit transfers and direct debit payments bundled together for transmission in a file use the ISO 20022 XML message format. The above participants agreed to notify the EC of the fact that Latvia intends to apply the specific provision stated in the SEPA Regulation.

In 2012, the Bank of Latvia, subject to the request of the FCMC, issued opinions on draft amendments to the LCD Regulation No. 4 "On Financial Instruments Transfer", Regulation No. 5 "On DVP Settlement for OTC Transactions", Regulation No. 6 "On Settlement of Transactions Executed or Registered at the Stock Exchange", Regulation No. 11 "On Data Exchange" and Regulation No. 15 "On DVP Settlement in Foreign Currencies". The above amendments specify the exact time for the entry of the securities transfers, their irrevocability and settlement finality in the DENOS, pursuant to the provisions of the Law "On Settlement Finality in Payment and Financial Instrument Settlement Systems", as well as enable the LCD participants to submit the settlement orders of OTC FOP and DVP transfers, specifying the intended settlement date as a date preceding the above submission date (past date).

8. COOPERATION WITH THE ECB

In 2012, the Bank of Latvia (overseers) continued to participate in the ECB working groups addressing a wide range of issues associated with the oversight of payment systems and securities market infrastructure. At the working group meetings held by the Working Group on Oversight (WGO) of the ECB Payment and Settlement Systems Committee (PSSC) and Payment Systems Policy Working Group (PSPWG), the overseers and representatives of other central banks of the EU Member States debated about the issues pertaining to the oversight of payment instruments and infrastructures and dealt with the issues related to the SEPA Project. The overseers took part in the ECB Securities Experts Working Group (SEWG); however in 2012 the above Group did not perform any activities attributable to non-euro area countries.

The overseers continued to participate in the ECB's European Forum on the Security of Retail Payments (SecuRe Pay) along with the FCMC experts. From 20 April until 20 June, the overseers coordinated, in cooperation with the FCMC, the consultation of the European Forum on the Security of Retail Payments regarding the recommendations for the security of internet payments, providing response to the issues raised by the IT Committee of the ACBL and assistance in drafting the relevant answer within the above consultation. The overseers reviewed the outcome of the above consultation and developed recommendations on the access of the third parties to the payment accounts.

9. INFORMATION TO THE PUBLIC

The Bank of Latvia's Annual Report, Financial Stability Report and the Bank's website presented information on the development of payment instruments and their infrastructure and payment and securities settlement systems as well as the activities performed by the Bank of Latvia with respect to the oversight of the payment and securities settlement systems. The annual statistics of Latvia's payment and securities settlement systems and payment instruments is published in the ECB Statistical Data Warehouse.

10. THE BANK OF LATVIA'S PAYMENT AND SECURITIES SETTLEMENT SYSTEM POLICY

In 2012, the oversight of the payment and securities settlement systems was conducted in accordance with the objectives and assignments stipulated by "The Bank of Latvia's Payment and Securities Settlement System Policy" for each component of the national payment and securities settlement system: systemically important payment and securities settlement systems, clearing and retail payment systems and payment instruments.

After the changeover to the euro and Bank of Latvia's joining the Eurosystem, the oversight policy of the ECB will be binding and the Bank of Latvia will perform the oversight of the payment and securities settlement systems pursuant to the above policy.

APPENDIX 1. OVERVIEW OF THE ASSESSMENT OF THE SAMS COMPLIANCE WITH THE CORE PRINCIPLES

"The Bank of Latvia's Payment and Securities Settlement System Policy" approved by the Bank of Latvia's Council Resolution No. 189/6 of 13 January 2011, states that the Bank of Latvia performs oversight of the systemically important payment systems operating in Latvia pursuant to the *Core Principles for Systemically Important Payment Systems* (hereinafter, the Core Principles), assessing their compliance with the Core Principles and requiring the payment system operators to take all reasonable measures to achieve full compliance with the Core Principles.

The SAMS is a systemically important large-value payment system ensuring secure, rapid and efficient settlement for its participants. The SAMS is the Bank of Latvia's real time gross settlement system providing for mutual settlements of large-value interbank payments and those of the Bank of Latvia's monetary policy operations. The SAMS also enables the final settlement of the following systems: the Bank of Latvia's electronic clearing system, securities settlement system of the LCD, the FDL local lats clearing and settlement system for card payments, the lats clearing and settlement systems for card payments of *MasterCard Europe Sprl* and *Visa Europe Services Inc.*

The Bank of Latvia is the operator of the SAMS, and settlement in the SAMS is executed in central bank money through the settlement accounts of SAMS participants with the Bank of Latvia. The Bank of Latvia's Council Regulation No. 172/9 "Regulation for the Participation Procedure in the Bank of Latvia's Interbank Automated Payment System" of 5 November 2009 regulates the operation of the SAMS. A detailed description of the SAMS is provided in the Bank of Latvia's Board Regulation No. 1012/2 "Functional Specification of the Bank of Latvia's interbank automated payment system (SAMS)" of 28 October 2010 (hereinafter – the SAMS functional specification).

In 2012, the overseers conducted the assessment of the SAMS against the Core Principles pursuant to the assessment methodology incorporated into the ECB document *Terms of Reference for the assessment of euro systemically and prominently important payment systems against the applicable Core Principles for Systemically Important Payment Systems*. The overseers applied the following scale for the purpose of assessment: observed, broadly observed, partly observed and not observed. Performing the assessment, the overseers and the SAMS operators discussed all issues pertinent to the Core Principles. The assessment is based on the analysis of the SAMS operation-related documents and the replies prepared during the assessment process, taking into account the commentaries and proposals by the operators and experts from other structural units of the Bank of Latvia involved in the above process. The above document provides the opinion of the overseers on the SAMS compliance with the Core Principles.

Core Principle I. The system should have a well founded legal basis under all relevant jurisdictions.

1.1 The legal infrastructure of the system is clearly identified (e.g. the jurisdiction governing the system, applicable laws, statutes, case law, contracts, rules and procedures).

Appendix 1 "System Rules for Participation in the SAMS" to the Bank of Latvia Council Regulation No. 172/9 "Regulation for the Participation Procedure in the Bank of Latvia's Interbank Automated Payment System" of 5 November 2009 (hereinafter, the

System Rules for Participation in the SAMS), and the agreements "On Participation in the SAMS" (Appendix 2) and "On Participation of Ancillary System in the SAMS" (Appendix 3) regulate the operation of the SAMS and participation in the system. The legal framework for the SAMS is based on legal relationship – the participant or ancillary system's operator agrees to the "System Rules for Participation in the SAMS" by entering into the agreement on participation in the SAMS, and undertakes to act in accordance with the above Rules and the signed agreement.

The "System Rules for Participation in the SAMS" explicitly state the governing jurisdiction. Pursuant to the above Rules, the bilateral relationship between the Bank of Latvia and a participant or an ancillary system's operator is governed by the legal acts, and place of performance regarding the legal relationship between the Bank of Latvia and the participant or the operator of an ancillary system shall be the Republic of Latvia.

The Bank of Latvia's operation is governed by the Republic of Latvia legislation.

1.2 Legal issues are clearly identified and understood (e.g. is the Settlement Finality Directive (SFD) implemented in the jurisdiction governing the system, definition of irrevocability, finality, clear liability rules, potential legal risks stemming from relevant jurisdictions other than that governing the system).

The requirements of the Settlement Finality Directive have been fully implemented in Latvia pursuant to the Law "On Settlement Finality in Payment and Financial Instrument Settlement Systems" (hereinafter, the Law on Settlement Finality). The SAMS has been included in the list maintained by the EC along with those systems which are subject to the Settlement Finality Directive. Pursuant to Article 3(1) of the Law on Settlement Finality, the legal provisions of the above Law are applicable to the systems operated by the Bank of Latvia, and hence the SAMS is safeguarded by the Settlement Finality Directive.

Institutions established in the EEA or non-EEA established institutions acting through a branch established in the EEA may participate in the SAMS. Any controversy between the Republic of Latvia legislation and legislation of the SAMS foreign participant is settled since the Settlement Finality Directive has been implemented in the Republic of Latvia's legislation and in other EEA Member States. An applicant participant registered in the EEA and willing to become a participant in the SAMS shall submit to the Bank of Latvia a capacity opinion containing the assessment of a participant's legal capacity to enter into and carry out its obligations under the "System Rules for Participation in the SAMS". A non-EEA applicant participant acting through a branch established in the EEA shall submit to the Bank of Latvia a country opinion stating that the participant's participation in the SAMS is not contrary to the jurisdiction where the participant is established.

1.3 Legal issues are properly addressed so that the system's rules and procedures are enforceable and their consequences predictable (e.g. system designation under the SFD, specific legal arrangements in case of access of foreign participants).

The SAMS is a system maintained by the central bank and hence is safeguarded pursuant to the Law on Settlement Finality (a legal act whereby the requirements of the SFD are transposed into the national law). The Law on Settlement Finality provides for the netting and settlement finality, their legal power in the system and the right to dispose, at their own discretion, of the collateral which has been provided in relation to

the participation in the system or transactions with the central bank, as well as in the case of insolvency proceedings of a participant.

Conclusion. The regulatory documents and agreements pertinent to the SAMS create a stable and appropriate legal basis for the operation of the SAMS in the Republic of Latvia. Hence the SAMS **observes** Core Principle I.

Core Principle II. 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 they incur through participation in it.

2.1 The documentation covering the management and containment of financial risks (i.e. credit and liquidity risk) is clearly identified.

The system's regulations and procedures are based on the agreements "On Participation in the SAMS", "On Participation of Ancillary System in the SAMS", as well as the "System Rules for Participation in the SAMS" and "Functional Specification of the Bank of Latvia's Interbank Automated Payment System (SAMS)".

The regulations and procedures regarding the financial risk management and containment are stipulated in the following Sections of the "System Rules for Participation in the SAMS": Section 4 (Management of Accounts and Processing of Payment Orders), Section 6 (Participant's Workstation), Subsection 7.1 (Liability regime), Subsection 8.2 (Suspension and Extraordinary Termination of Participation), Section 9 (The Bank of Latvia's Rights of Pledge and Set-Of), Section 5 of Appendix 1.1 (Settlement of Payment Orders in the Queue), Section 6 (Use of the Participant's Workstation) and Appendix 1.6 (Provision of Intraday Credit Limit). Hence the "System Rules for Participation in the SAMS" and the agreement on participation in the SAMS can be deemed to provide complete understanding to the system's participants of risks they may incur in relation to their participation in the system. The above documents are publicly available on the Bank of Latvia's website.

2.2 The documentation covering the management and containment of financial risks is up to date, comprehensive and clear.

The regulations and procedures associated with the operation of the SAMS clearly and explicitly stipulate the rights and obligations of the stakeholders and the role and responsibility of each stakeholder regarding the financial risks that may be incurred due to the participation in the SAMS. The functionality of the SAMS and settlement in central bank's money prevents credit risk for the system's participants and provides for the risk containment procedures by enabling the participants to borrow the funds required for the settlement from the Bank of Latvia against collateral. The participant confirms by signing the agreement that it agrees to the participation in the SAMS pursuant to the regulations. Therefore it can also be concluded that it understands the provisions of the regulations. The "System Rules for Participation in the SAMS" are publicly available on the Bank of Latvia's website. The Bank of Latvia provides explanation of the relevant provisions of the regulations to the applicant participant, where necessary.

Upon implementing any functional or technical changes, the Bank of Latvia also makes the relevant amendments to the regulations governing the operation of the SAMS. The Bank of Latvia cooperates with the ACBL and other participants in the system regarding the issues of amendments to the regulations and improvement of the SAMS operation,

thus identifying an overall opinion of the SAMS participants on a wide range of the SAMS operation-related issues. The Bank of Latvia or a system's participant may initiate any changes in the SAMS operation or amendments to the regulations related to the SAMS operation. Following the initiation of the changes, the Bank of Latvia organises a discussion with the system's participants for the purpose of agreeing on the relevance of such changes and their implementation. Changes are implemented within the stipulated time frame after the agreement has been reached.

2.3 The system operator/owner provides adequate monitoring and support to enable participants and other involved parties (e.g. infrastructure service providers) to understand the rules relating to the management and containment of financial risks.

Pursuant to Paragraph 27 of the "System Rules for Participation in the SAMS", the Bank of Latvia maintains a system support desk to assist the participants encountering difficulties due to the SAMS operation. The system operators ensure daily technical and informative support to the participants in the system by providing consultations thereof. The participant in the system is responsible for the training of the recently hired staff. The Bank of Latvia organises educational sessions for the purpose of training the system participants, where necessary.

2.4 The key rules for the management and containment of financial risk are publicly disclosed, thereby taking due account of possible confidentiality constraints.

The provisions and procedures regarding the financial risks are incorporated into the "System Rules for Participation in the SAMS". Any regulations of the system and procedures related to the system's participants and their participation in the system are publicly disclosed. Amendments to the SAMS regulations and procedures are also published on the Bank of Latvia's website before taking effect. When entering into the agreement with new participants, the SAMS operators notify them of the regulation, procedure and other regulatory documents related to the SAMS operation and participation in the system.

Conclusion. The regulations and agreements regulating the SAMS operation are explicit, accountable and consistent with the current operation of the system, and provide a clear understanding to its participants of the system's impact on the financial risks related to the participation in the SAMS. Hence the SAMS **observes** Core Principle II.

Core Principle III. The system should have clearly defined procedures for the management of credit risks and liquidity risks, which specify the respective responsibilities of the system operator and the participants and which provide appropriate incentives to manage and contain those risks.

3.1 The quality of the existing rules and procedures for the management and containment of credit exposures is such that they emphasise the importance of appropriate management of credit risk, provide incentives for its management and containment, and enable all parties to have the capabilities to manage and contain the credit risk they bear.

The SAMS settlement principle prevents a possibility of credit risk arising among the system's participants. The settlement in the SAMS takes place in real time by debiting and crediting the participants' settlement accounts with the Bank of Latvia

simultaneously. The payment orders of the SAMS participants are settled only through the participants' settlement accounts in the value of the settlement funds available.

To contain and manage credit risk incurred by the Bank of Latvia when granting the loans to the SAMS participants for the purpose of replenishing funds, the loan granted to the participant on the participant's cash account in the form of an overdraft is collateralised with a securities pledge of the relevant value provided in the VNS before the receipt of the above loan by the participant.

3.2 There are clearly defined analytical procedures and/or tools (e.g. information systems for the clear, full and timely monitoring, access criteria based on creditworthiness) in place to analyse credit exposures that participants pose to the system and that the settlement agent might incur.

The participants in the SAMS do not pose credit risk to the system or any other participant during the settlement process since the settlement takes place in real time and only in the value of the settlement funds available on the participants' settlement accounts.

The agreement "On Participation in the Bank of Latvia's Monetary Policy Operations" is signed with the SAMS participant willing to use the Bank of Latvia's lending facility and the limit of the credit line is specified for its settlement account in the SAMS depending on the value of securities available on the collateral account. The SAMS participant may resort to the Bank of Latvia's lending facility in the amount of the specified credit line.

3.3 There are clearly defined operational procedures (e.g. credit limits; pre-funding, collateralisation) in place to control and address [manage and contain] in real-time credit exposures that participants pose to the system and that the settlement agent might incur.

Participants in the SAMS do not pose credit risk to the system or any other participant during the settlement process since the settlement takes place in real time and only in the value of settlement funds available on the participants' settlement accounts. The Bank of Latvia is exposed to credit risk by granting loans to the SAMS participants for the replenishing of funds. Therefore an intraday credit limit of an intraday credit line is set on the SAMS participant's account and the relevant loan is collateralised with a securities pledge of the relevant value provided by the participant in the VNS before the receipt of the above loan. Credit liabilities of the SAMS participants are fully secured by the collateralised securities which the Bank of Latvia may dispose of at its own discretion, if the SAMS participant fails to repay the loan.

3.4 The existing rules and procedures for the management and containment of credit exposures clearly allocate/specify the system operator, the settlement agent's, and the participants' responsibilities for the management and containment of credit risk.

The Bank of Latvia shall settle a payment order accepted pursuant to the "System Rules for Participation in the SAMS" immediately or at the latest by the close of the settlement day on which it has been accepted, provided that sufficient funds are available on the payer's settlement account in the SAMS. Funding is provided by the liquidity available on the settlement account in the SAMS. Thus the SAMS participants do not pose credit risk to the system or any other participant during the settlement process. Moreover, the

functionality of the SAMS enables the participants to monitor cash flow on their settlement account in real time.

The Bank of Latvia grants an intraday credit limit on the basis of eligible collateral, the procedure for accounting, pledging, evaluation, management and alienation of which is defined in the Bank of Latvia's "Regulation for the Use of the Bank of Latvia's Monetary Policy Instruments".

3.5 The quality of the existing rules and procedures for the management and containment of liquidity risk is such that they emphasise the importance of appropriate management of liquidity risk, provide incentives for its management and containment, and enable all parties to have the capabilities to manage and contain the liquidity risk they bear.

The functionality of the SAMS and the procedure for the settlement of the payment orders stipulated in the "System Rules for Participation in the SAMS" clearly signals that the participants are responsible for the provision of liquidity required for the settlement of their payment orders. If the participant fails to monitor the balance on its account, this may lead to a liquidity gap and rejection of the payment orders at the end of the SAMS business day.

The SAMS participant's workstation enables to monitor the settlement account balance in real time and hence to plan and manage liquidity. The Bank of Latvia may grant an intraday credit limit to the participant, who has entered into the agreement "On Participation in the Bank of Latvia's Monetary Policy Operations" in accordance with the Bank of Latvia's "Regulation for the Use of the Bank of Latvia's Monetary Policy Instruments".

3.6 Clearly defined analytical procedures and/or tools (e.g. information systems for the clear, full and timely monitoring) are in place to analyse liquidity risks that participants pose to the system and that the settlement agent might incur.

The SAMS participants do not pose liquidity risk to the system or to the Bank of Latvia in the capacity of the SAMS operator.

To mitigate liquidity risk to which the system's participants are exposed, the SAMS participant's workstation enables the participant to access information related to its settlement account in the SAMS and information on the SAMS operational status in real time. The participant receives information about the balance on its settlement account and settled and received payments and non-settled queued payments.

3.7 Clearly defined operational procedures (e.g. queuing facility, pre-funding, redistribution of liquidity intraday) are in place to control and address [manage and contain] in real time liquidity risks that participants pose to the system and that the settlement agent might incur.

The SAMS participants do not pose liquidity risk to the system since the payment orders are settled only in the amount of liquidity available on the settlement accounts. To mitigate liquidity risks incurred by the participants upon executing the settlement in the SAMS, they are provided the following: a payment order queue management mechanism and queue gridlock resolution, the changing of the payment order priority, cancellation of the queued payment orders and intraday credit limit for the settlement accounts.

3.8 The existing rules and procedures for the management and containment of liquidity exposures clearly allocate/specify the settlement agent's and the participants' responsibilities for the management and containment of liquidity risk, and the system operator's and participants responsibilities for monitoring and facilitating a smooth flow of payments through the system.

The system operator's responsibility for the management and containment of liquidity risk arises from the system's rules. The SAMS provides ample liquidity risk management opportunities for the SAMS participants by means of the SAMS payment queue management mechanism, the payment order priority change and cancellation facility, queue gridlock mechanism and provision of intraday credit limit. At the same time, payment orders which cannot be settled by the close of the settlement day due to insufficient balance on the settlement account, are rejected. The participants are responsible for providing an adequate balance on the settlement account by means of the liquidity management instruments at their disposal in order to enable a timely settlement of their payment orders.

Conclusion. The functionality of the SAMS prevents the build-up of credit risk during the settlement process. The procedures for the liquidity risk management and containment are stipulated in the "System Rules for Participation in the SAMS" which also explicitly define the responsibility of the system' operator and participants regarding the risk management and containment. The functionality of the SAMS provides ample liquidity risk management opportunities for the SAMS participants, and the Bank of Latvia offers the participants an opportunity to receive credit in the form of an intraday credit limit of a settlement account in order to promote smooth payment flow in the system. Hence the SAMS **observes** Core Principle II.

Core Principle IV. The system should provide prompt final settlement on the day of the value, preferably during the day and at a minimum at the end of the day.

4.1 Any payment order that is accepted by the system for settlement should be finally settled promptly and at the latest at the end of the intended day of value on which it is due to the receiving participant in the system.

If balance on the system participant's settlement account is sufficient to execute a payment order, the settlement is immediate, i.e. in a matter of seconds. The payment order is final and irrevocable after debiting the settlement account of the sending participant, and at the same time funds are available to the receiving participant on its account.

4.2 The life cycle of a payment in the system (submission, validation, acceptance, irrevocability, rejection, finality of a payment) should be clearly defined in the relevant system's rules and procedures and these rules and procedures should be legally effective.

The "System Rules for Participation in the SAMS" and Appendices thereto stipulate full life cycle of a payment. The above Rules and Appendices stipulate the terms and conditions for the submission and acceptance of a payment order, the precise point in time at which such payment orders become irrevocable and settlement is final, provisions for the payment order processing and rejection, procedure for the revocation of payment orders and change in priority as well as the SAMS operating hours.

Conclusion. Accepted payment orders shall be settled immediately or at the latest by the end of the business day on which they were accepted, provided that sufficient funds are available on the sending participant's settlement account in the SAMS. The payment orders settled in the SAMS are final and irrevocable. Hence the SAMS **observes** Core Principle IV.

Core Principle VI. Assets used for settlement should preferably be claims on the central bank; where other assets are used, they should carry little or no credit risk and little or no liquidity risk.

6.1 The settlement asset carries little or no credit/liquidity risk.

The settlement is executed through the participants' accounts with the central bank, i.e. the Bank of Latvia.

6.2 Risk management measures are in place concerning the settlement institution if the settlement asset is not a claim on the central bank.

The above shall not apply to the SAMS since the settlement in the system is effected through the participant accounts with the central bank.

Conclusion. The settlement is executed through the SAMS participants' accounts with the central bank, i.e. the Bank of Latvia. The SAMS thus **observes** Core Principle VI.

Core Principle VII. The system should ensure a high degree of security and operational reliability and should have contingency arrangements for timely completion of daily processing.

7.1 The system operator and the participants and any relevant third party have agreed on a set of security policies and operational service levels that have to be met by all of them. These policies and service levels are in line with international standards in terms of confidentiality, integrity, authentication, non-repudiation and availability of information, as well as auditability of processes and procedures.

The security considerations, policy, procedure and level of service are all taken into account during the development of the system, and the system has been upgraded and maintained appropriately. The security of information and information systems is monitored at the Bank of Latvia in accordance with the principles of best practice, considering the Bank of Latvia's needs, specific operation and organisational structure as well as the recommendations of the ECB and *Information Security Forum* regarding the security of information and information systems.

Business continuity management is organised in accordance with the principles of best practice, taking into account the Bank of Latvia needs, specific operation and organisational structure as well as the ECB recommendations for the business continuity management.

The "System Rules for Participation in the SAMS" have been developed in accordance with the security and business continuity objectives, policy and the relevant procedures, and the above Rules apply to the SAMS participants and the Bank of Latvia as an operator and participant at the same time. A participant is deprived of the participation in the SAMS, if it does not consent to and comply with the security requirements stipulated by the Bank of Latvia. The agreements signed between the Bank of Latvia

and third parties regulate the security issues with the third parties. The security policy and the relevant procedures are updated in accordance with the internal and external legislative acts. The regulations and procedures are revised, where any of the system's components has changed or the operational principles of the systems are also amended.

7.2 If new technologies are applied, the implications for security and operational reliability should be well understood and addressed.

The security policy and service levels are revised in view of the changes in the market and technologies. The security requirements are revised along with the changing technologies and the relevant amendments are made to the legislative acts, where necessary.

7.3 Security objectives, policies, and procedures exist and are commensurate with the importance of the payment system in terms of transaction volumes and values.

The Bank of Latvia Information and Information Systems Security Policy stipulates that the security of information and information systems is monitored at the Bank of Latvia in accordance with the principles of best practice, considering the Bank of Latvia's needs, specific operation and organisational structure as well as the recommendations of the ECB and Information Security Forum regarding the security of information and information systems. The Council of the Bank of Latvia stipulates the policy and the Board of the Bank of Latvia ensures its implementation.

7.4 Responsibility for the information security is clearly defined.

All information is processed at the Bank of Latvia, encompassing all regulatory documents adopted by the Bank of Latvia on the security of information. A participant shall implement adequate security controls to protect its systems from unauthorised access and use. The participant shall be exclusively responsible for the adequate protection of the confidentiality, integrity and availability of its systems.

7.5 A risk assessment is regularly performed by the system operator and results are reported to the system owner.

The Bank of Latvia performs risk analysis once in two years, documenting the relevant results. Process risks are also revised after incidents. The most current technological advances and market development trends are taken into account upon assessing the SAMS security and performing the risk analysis.

The results of the system's security assessment and risk analysis are reported to the Board of the Bank of Latvia.

7.6 The system is subject to a continuous independent security review.

Several internal auditors are competent in the area of information technologies and carry out an audit of the SAMS security-related processes.

7.7 Operation and technical procedures are comprehensive, rigorous and well documented.

The "Functional Specification of the Bank of Latvia's Interbank Automated Payment System (SAMS)" establishes the requirements for preparing the messages and their

processing-related structure. The "Functional Specification of the Bank of Latvia's Interbank Automated Payment System (SAMS)" is an integral part of the Bank of Latvia's Council Regulation No. 172/9 "Regulation for the Participation Procedure in the Bank of Latvia's Interbank Automated Payment System" of 5 November 2009.

The service levels, alternative routing options and arrangements regarding the disruptions of the operations are stipulated by the Bank of Latvia agreements concluded with the providers of telecommunications services.

The "System Rules for Participation in the SAMS" and "Functional Specification of the Bank of Latvia's Interbank Automated Payment System (SAMS)" provide information to the system's participants on the operational risks they are exposed to upon such participation.

The risk containment related procedures are explicitly stated in the "System Rules for Participation in the SAMS". The participant confirms by signing the agreement on the participation in the SAMS that it understands the said rules and agrees with them. The rules also establish contingency procedures, thus eliminating or containing the impact of the operational risk.

7.8 Changes are properly tested, authorised and documented.

The Bank of Latvia conducts the testing of the technical parameters and functionality of the system's new version. The Bank of Latvia also conducts the testing of changes in the SWIFT infrastructure prior to its utilisation. The changes in the system are documented and agreed upon by the relevant structural units of the Bank of Latvia. The Bank of Latvia has an individual test server of the SAMS which is equal to a server in live environment from the point of view of security. The backup versions of the system are developed and thus it will be possible to update the former version of the system, where necessary. The changes in the system have also been assessed from the viewpoint of security.

To participate in the SAMS, a new participant shall meet the stipulated technical and operational requirements. To verify the new participant's capacity to comply with the above requirements, the check-up tests are conducted and the participant is granted the participation status in the SAMS after successful completion of the above requirements.

7.9 Capacity requirements are incorporated in the design of the system, monitored and upgraded when necessary.

The selection of the system's components is focussed on enabling an adequate performance. The system's operation is monitored, with the operators and users enabled to assess its high-speed operation, and the system's components may be replaced or improved where necessary. In practice, the system has excess capacity so that the reasonable changes in the processed volumes cause no performance problems. High-speed and capacity related problems have not been identified since the launch of the SAMS operation.

7.10 The system should be administered and operated by an adequate number of well-trained staff.

The SAMS operation is enabled by the Bank of Latvia's experts in information technologies and operators who provide an ongoing monitoring of the system's

operation in order to identify and eliminate the deviations from the standard operation of the SAMS on a timely basis. At the Bank of Latvia, the number of employees is sufficient for providing secure and efficient operation of the SAMS, with experts in the relevant areas replacing each other, where necessary, thus also enabling the operation of the SAMS in abnormal and contingency situations. The operation of all payment systems, including the SAMS, maintained by the Bank of Latvia is monitored by a number of operators, while technical support is provided by a number of experts in information technologies.

7.11 Operational and security incidents are reported, recorded, analyzed and followed-up appropriately.

Operational disruptions of the SAMS are recorded in the Bank of Latvia Incident Register and evaluated accordingly, taking into account their impact on the SAMS operation.

Consistent information on the operational disruptions of the SAMS is available since the launch of the SAMS operation. In 2008, the Bank of Latvia established a single Incident Register providing the storage of information on an incident and the relevant course of remedial actions and notification of the respective staff members in electronic form thereof.

The SAMS availability was 100% in 2012.

7.12 Systems should have a well-defined business continuity strategy and monitoring mechanism endorsed by the board of directors. Critical functions should be identified and processes within these functions categorized according to their criticality. Business continuity objectives for SIPS should aim at the recovery and resumption of critical functions within the same settlement day.

The Council of the Bank of Latvia approves the "Bank of Latvia Business Continuity Management Policy". The Board of the Bank of Latvia ensures the implementation of the above policy, including the compliance of the business continuity management plan with the provisions of the said policy, and provides an adequate financing pursuant to the said policy.

The responsibility of the Bank of Latvia's Heads of the Structural Units for ensuring business continuity within the remit of their accountability, including the responsibility for the continuity of critical processes in accordance with the stated objectives, has been stipulated in the Bank of Latvia's regulatory documents for the business continuity management.

Business processes are assessed on an annual basis at the Bank of Latvia in order to update the list of critical processes and critical resources. The "Procedure for Managing the Continuity of the Bank of Latvia's Operation" stipulates that in the event of a disruption in the SAMS operation, a manual processing of the payment orders, switching over to a backup infrastructure, making use of the stand-by working stations is provided depending on the cause of such disruption. The measures to be taken towards the recovery of the SAMS operation depending on their complexity have been planned so as not to exceed two hours, in most cases providing for the recovery of the operation within a time frame of 30 minutes. The maximum permissible period of a disruption in the SAMS operation is until the end of the calendar day (to 24:00).

7.13 Business continuity plans should envisage a variety of plausible scenarios, including major natural disasters, outages and terrorist acts affecting a wide area. Systems should have a secondary site, and the latter's dependence on the same critical infrastructure components used by the primary site should be kept to the minimum necessary to enable the stated recovery objectives for the scenarios concerned to be met.

The "Procedure for Managing the Continuity of the Bank of Latvia's Operation" sets out the procedure for organising and implementing the operational continuity management and the plans for business continuity management. The above plans incorporate the measures for providing the continuity of critical processes (including the SAMS operation) and ongoing accessibility of critical resources and their restoration, maximum permissible periods of discontinuity, time-frame of such restoration as well as the list of stand-by working stations incorporating the information on the minimum number of stand-by working stations, location of such working stations and facilities. The plan for managing the continuity of the SAMS operation incorporates the activities in case of an unavailability or improper operation of the Bank of Latvia's information systems, staff and working environment (the building, power supply and security). Where a disruption in the SAMS operation evolves into a crisis, it is managed in accordance with internal regulation approved by the Council of the Bank of Latvia and stipulating the procedure for managing crisis, the composition and responsibilities of the Crisis Management Committee. In such a case, the Crisis Management Committee decides on the measures to be implemented for maintaining the critical functions. Overall, the business continuity plan for the SAMS operation and the procedure for crisis management provides for the continuity of the SAMS operation and elimination of consequences in the event of any external and internal threats or scenarios when any of the Bank of Latvia's critical resources for providing the SAMS operation is affected.

To ensure the continuity of the SAMS operation, the stand-by working stations will be arranged in a number of buildings, also outside the city, in case the buildings located in the city are not accessible while information systems continue to operate. The stand-by working stations are equipped with all the required technical devices and infrastructure for the purpose of providing the SAMS operation and its oversight from the above working stations. In case any staff member is unavailable, the Head of the Payment Systems Department organises the employee replacement, where the minimum number of employees is not ensured for the maintenance of the critical process. At the Bank of Latvia, the number of employees is sufficient for providing secure and efficient operation of the SAMS, with experts in the relevant areas replacing each other, where necessary, thus enabling the continuity of the SAMS operation.

The specific measures are stipulated and the responsible persons nominated in the plan for managing the continuity of the SAMS operation, thus simplifying the implementation of the plan to the extent possible and fostering a common understanding of the performance of the required activities. The plan for managing the continuity of the SAMS operation is tested on a regular basis, including the performance of the SAMS operation from the stand-by working stations, pursuant to the annual "Plan for the Training and Testing of the Management of Bank of Latvia Business Continuity" approved by the Board of the Bank of Latvia.

The information flow may be transmitted via another operator in the event of the discontinuity of telecommunications. The business continuity procedures regarding the SAMS operation enable the participants to submit the payment orders and receive

information from the Bank of Latvia by alternative means of communication, including the paper-based documents.

7.14 System operators should establish crisis management teams and well-structured formal procedures to manage a crisis and internal/external crisis communications.

Where an incident resulting in a disruption in the SAMS operation evolves into a crisis, it is managed in accordance with the relevant legal act approved by the Council of the Bank of Latvia and stipulating the procedure for crisis management, the composition and responsibilities of the Crisis Management Committee.

Crisis communication is one of the components of the business continuity procedure for the SAMS operation. Press Secretary of the Bank of Latvia, together with the structural unit responsible for the relevant processes, Public Relations Division of the International Relations and Communication Department, Legal Department and Operational Continuity Officer of the Bank of Latvia furnishes information to the participants, staff, customers, central and local government institutions, foreign institutions and organisations, general public and mass media on the critical incident and consequences thereof, where necessary.

Crisis communication is organised at the Bank of Latvia pursuant to Appendix 11 to the Bank of Latvia's Board Regulation No. 1087/4 the "Procedure for Managing the Continuity of the Bank of Latvia's Operation" of 17 November 2011, stipulating the measures for the elimination of the SAMS operational disruptions and the relevant remedial actions. The SAMS crisis communication is predominantly organised within the Bank of Latvia since the operators and overseers of the SAMS are the structural units of the Bank of Latvia. Communication with the SAMS participants is organised in accordance with the "System Rules for Participation in the SAMS" by any means of communication. As regards the cooperation with the SAMS participants in the area of business continuity procedures, e-mail or telephone should be used for the communication.

7.15 The effectiveness of the business continuity plans needs to be ensured through regular testing of each aspect of the plan. System operators should consider performing whole days of live operations from the secondary site, and the latter should also be tested periodically with the participants' contingency facilities. Systems should participate in industry-wide testing, organized and coordinated by a commonly agreed financial authority. System operators' business continuity plans should be periodically updated, reviewed and audited to ensure that they remain appropriate and effective. Operators should consider the partial disclosure of business continuity plans to external stakeholders such as other SIPS, overseers and banking supervisors.

To update the Bank of Latvia business continuity process and maintain the skills and competencies of the employees, the training of the business continuity management and tests are conducted on a regular basis in line with the annual Plan for Training and Testing of the Management of the Bank of Latvia's Business Continuity approved by the Board of the Bank of Latvia. Operational Continuity Officer of the Bank of Latvia monitors the implementation of the plan.

In case the changes are implemented in the SAMS functionality, infrastructure and processes, the operational risks of the SAMS are evaluated and a decision taken on the performance and frequency of the business continuity tests, where necessary. Every year, the changes implemented in the critical processes in the previous year, changing

external events, conclusions made after the incidents and the performed tests are taken into consideration upon drafting the test plan for the next year.

Operational Continuity Officer of the Bank of Latvia develops the measures for the continuity of the SAMS operation in cooperation with the SAMS operator, experts in information systems and other employees of the Bank of Latvia whose competence extends over the development of the measures for continuity of the SAMS operation and decision taking to that effect.

Information regarding the Bank of Latvia's detailed arrangements and details of the plan shall not be furnished to third parties. The "System Rules for Participation in the SAMS" govern the general arrangements of the Bank of Latvia in contingency situations, stipulating the Bank of Latvia actions in such cases, the responsibilities of the participants, the procedure for contingency processing and actions in the event of the participant-related operational disruptions.

In 2011, the Bank of Latvia presented the general principles and structure of the Bank's business continuity management system and the solutions for ensuring the operational continuity of the payment and settlement systems maintained by the Bank of Latvia, organising a theoretical test of the business continuity management for the participants of the payment and settlement systems maintained by the Bank of Latvia.

Conclusion. The SAMS ensures a high degree of security and operational reliability in standard situations, as well as in an emergency. Procedures for ensuring the continuity of the SAMS operation have been developed, in most cases providing for the recovery of the SAMS operation within a time frame of 30 minutes. The above procedures are tested and revised on a regular basis and updated, where necessary. The SAMS thus **observes** Core Principle VII.

Core Principle VIII. The system should provide means of making payments which are practical for its users and efficient for the economy.

8.1 The system continuously meets the needs (e.g. technology, operating hours and procedures, technical performance, business continuity) of the users (meaning both the system's participants and their customers for payment services), and procedures are in place to review and update the service level.

The SAMS is the central bank's system which is not aimed at earning profit. The SAMS functions as the centre of the whole lats payment system, providing mutual settlements of large-value interbank payments and those of the Bank of Latvia's monetary policy operations, as well as settles final positions of other payment systems. The SAMS is the Bank of Latvia's real time gross settlement system ensuring interbank settlement in lats in real-time. The real time gross settlement principle used in the SAMS considerably reduces the impact of liquidity risk and credit risk on the system, offering its participants an opportunity for immediate settlement and continuous liquidity management. The SAMS was developed and further development-related changes were implemented in close cooperation with the credit institutions, taking into account their recommendations and expectations regarding the range of services and operational principles as well as the necessity to provide the settlement of the Bank of Latvia's monetary policy operations.

8.2 The needs of all types of users are considered in the design of the system and its evolution (e.g. by way of cooperation, consultation and coordination of plans).

Expectations and recommendations of all participants are reviewed by the Bank of Latvia in cooperation with the ACBL during the process of upgrading and development of the SAMS. Uniform provisions for participation in the system are applied to all participants in the SAMS after the implementation of changes, and system's participants are not grouped in categories.

8.3 Resources are allocated efficiently.

Resources for the development and maintenance of the SAMS are allocated efficiently, taking into account the system's importance and functionality. The technical and technological base of the SAMS and the relevant staff is adequately provided in order to solve the SAMS operation related problems as soon as possible and ensure appropriate service level to the SAMS participants. The SAMS persistently has high excess capacity which is continuously monitored and may be increased, where necessary.

To provide efficient liquidity management option to the SAMS participants, the SAMS functionality enables the SAMS participants to monitor account balances in real time, and liquidity risk to the SAMS participants is mitigated due to the opportunity of receiving the Bank of Latvia's automatic intraday credit for the replenishing of funds, where both parties have signed an agreement on the provision of such service.

The SAMS tariff policy is based on partial cost recovery from the maintenance of the SAMS, ensuring reasonable costs to its participants. The SAMS is not subsidised from other systems or any other system is not subsidised from the SAMS operation. The SAMS maintenance costs incurred by the Bank of Latvia are an investment for public benefit, since the SAMS operates as the centre of the whole lats payment system, providing mutual settlement of large-value interbank payments and those of the Bank of Latvia's monetary policy operations, as well as settles final positions of other payment systems. Moreover, taking into account the system's functionality and role in the national financial system, the SAMS is the only such system in Latvia.

The SAMS is based on SWIFT message standard which is the communication standard applied most frequently both by the SAMS participants and in the international environment.

8.4 The pricing policy (cost recovery method, market based pricing, subsidised pricing) is communicated clearly to participants.

Fees are charged for the purpose of a partial recovery of the Bank of Latvia's costs associated with the maintenance and operation of the SAMS, ensuring reasonable costs to the SAMS participants. Discussions were held with the participants prior to the development of the SAMS, and agreement was reached on the above issues.

Conclusion. The SAMS is an efficient and reliable real time gross settlement system, providing mutual settlement of large-value interbank payments and that of the Bank of Latvia's monetary policy operations, as well as settles final positions of other payment systems. The Bank of Latvia ensures reasonable costs to the SAMS participants that are equal to the costs of the systems in other countries, with equal functionality and role in the national financial system. The SAMS thus **observes** Core Principle VIII.

Core Principle IX. The system should have objective and publicly disclosed criteria for participation, which permit fair and open access.

9.1 Criteria for access/exit are clearly and explicitly stated and disclosed publicly.

The "System Rules for Participation in the SAMS" which are available to the public explicitly stipulate the connection and cut-off criteria and technical and legal requirements for the participation in the SAMS.

9.2 Procedures for access/exit are clearly specified in the rules and disclosed to participants and applicants.

The "System Rules for Participation in the EKS" describe the general application procedure and obligations of the parties upon joining the system and terminating the participation therein.

9.3 Criteria of access/exit are objective, based on appropriate risk and efficiency considerations, and do not unduly restrict competition amongst participants.

The procedure for connection and cut-off is the same for all potential and current participants in the system.

9.4 Criteria fulfilment is monitored on a regular basis.

The access criteria of the SAMS are not related to risk criteria; hence the Bank of Latvia need not conduct an ongoing monitoring of compliance thereof. Pursuant to the "System Rules for Participation in the SAMS", the SAMS participants shall promptly notify the Bank of Latvia where it fails to comply with the access criteria. If the operation of any SAMS participant is impaired or other prohibitions which may affect its participation in the SAMS are applied to it, the FCMC notifies the Bank of Latvia to that effect. The Bank of Latvia terminates the participant's participation in the SAMS upon establishing a non-compliance with the participation criteria by the SAMS participant or upon a receipt of information from the FCMC that can serve as a basis for the statement that the SAMS participant has failed to comply with the participation criteria.

Conclusion. The criteria for the participation in the SAMS are objective and accountable and permit fair and open access for its potential participants, thus the SAMS observes Core Principle IX.

Core Principle X. The system's governance arrangements should be effective, accountable and transparent.

10.1 Governance arrangements are clearly specified.

The Bank of Latvia is the owner and operator of the SAMS. The Payment Systems Department of the Bank of Latvia ensures the SAMS operation and performs the SAMS oversight. The Information Systems Department of the Bank of Latvia cooperates with the Payment Systems Department, ensuring technical maintenance of the system, communication network and servers.

The Bank of Latvia internal procedures, the Bank's regulations, the Law "On the Bank of Latvia" and other legal acts explicitly regulate the decision-making procedures and operational and control functions.

The Council of the Bank of Latvia approves the regulatory documents of the SAMS and such documents are publicly available on the Bank of Latvia's website.

In the event of disputes and errors, the disputes are resolved, taking into account the rights and obligations of the parties stipulated by the "System Rules for Participation in the SAMS" and the Republic of Latvia legislation.

10.2 Governance arrangements are transparent.

The Bank of Latvia is the central bank of the Republic of Latvia and the Law "On the Bank of Latvia" governs its operation. All information on the Bank of Latvia operation and organisational structure is available on the Bank of Latvia website. The operational function is distinct from the oversight function: the Payment Systems Operations Division of the Bank of Latvia's Payment Systems Department is responsible for ensuring the SAMS operation, whereas the Payment Systems Policy Division of the Bank of Latvia's Payment Systems Department is in charge of the SAMS oversight. Information about the system and its performance is available on the Bank of Latvia website and is updated monthly on a regular basis. The related information is also published in annual publications.

10.3 Management of the system operator is fully accountable for its performance vis-à-vis the system owner and the wider financial community, and lines of responsibility are clearly specified.

The Payment Systems Department of the Bank of Latvia ensures and oversees the SAMS operation and is accountable to the Board of the Bank of Latvia. The Internal Audit Department of the Bank of Latvia assesses the compliance with the requirements of internal control and is accountable to the Council of the Bank of Latvia, thus ensuring independence of the auditors from the Board of the Bank of Latvia. The level of independence of the oversight is similar to the structure established by the ECB.

The system's operator reports to the Board and the Council of the Bank of Latvia on the results of the system's operation and development plans. The Payment Systems Department of the Bank of Latvia discusses the issues pertinent to the SAMS operation and innovations at the Board of the Bank of Latvia, and the Council of the Bank of Latvia takes decisions to that effect. The Board of the Bank of Latvia is accountable for the Bank of Latvia's operation, including the achievement of the strategic goals, to the Council of the Bank of Latvia once a year, and the Council provides an evaluation of the activities performed by the Board of the Bank of Latvia and the overall performance of the Bank of Latvia, including the achievement of the strategic goals.

10.4 Major decisions are taken after consultation with at least all relevant stakeholders.

Any substantial changes in the SAMS operation and amendments to the related regulatory documents are coordinated with the ACBL and system's participants other than the members of the ACBL, the FCMC and overseers.

The system participants and the FCMC issue an official statement about the expected changes prior to the implementation of such changes in the SAMS by means of an official communication at the managerial level.

10.5 Objectives and major decisions are disclosed by the owners to operators, users, overseers, and any other relevant stakeholders.

The Bank of Latvia's strategic goal associated with the SAMS is to ensure a quality operation of the Bank of Latvia's interbank payment systems and high accessibility to the above systems.

Decisions on the SAMS operation concerning the interests of the participants are always discussed with the ACBL, system's participants other than the members of the ACBL and the FCMC, where such decisions are harmonised in advance with the Bank of Latvia, comprising both the opinion of the overseers and that of other staff members involved. Discussions are held with the ACBL, other participants in the system and the FCMC and opinions clarified prior to the implementation of changes in the SAMS operation.

10.6 Governance is effective in that management has incentives, appropriate tools and skills needed to achieve stated objectives for the system, its participants and the public more generally.

The Bank of Latvia's human resources management conducts the annual appraisal of staff members at the appropriate level, identifying their competencies and ability to achieve the set goals.

The management activities are audited by the Internal Audit Department of the Bank of Latvia on a regular basis. The Internal Audit Department is independent from the Bank of Latvia management and it reports to the Governor and Audit Committee of the Bank of Latvia. Moreover, external auditor (international auditing company) and the State Audit Office of the Republic of Latvia conduct the auditing of the Bank of Latvia annually. The above audit is directed towards the Bank of Latvia financial operations; however, the external auditors and the State Audit Office of the Republic of Latvia are entitled, at their discretion, to audit all Bank of Latvia's operations.

Conclusion. The Bank of Latvia ensures transparent, accountable and efficient management of the SAMS, thus the SAMS **observes** Core Principle X.

The overseers deem the SAMS to **observe** all the Core Principles applicable to the system, i.e. the Core Principles I, II, III, IV, VI, VII, VIII, IX and X.

APPENDIX 2. RISK-BASED ASSESSMENT OF LATVIA'S PAYMENT SYSTEM OVERSIGHT

In 2009, the ECB developed a risk-based assessment methodology for payment systems in order to set priorities for the performance of the payment system oversight in the future periods. According to the above, the assessment of payment systems has to be performed in three steps. During the first step, payment systems are mutually compared by determining their significance and oversight status. The assessment resulting from the mutual comparison of payment systems is used for defining further priorities for the payment system oversight. In the second step, the most important payment systems have to be assessed against the risk categories by analysing the impact of risk, its probability and the implemented risk mitigation measures for the purpose of establishing the oversight priority for a particular function of the system. The ECB will implement the third step by comparing the assessments of the above systems in a number of countries obtained during the second step in order to gain a consolidated overview of the risk categories common to the majority of the EU payment systems.

In 2009, the Bank of Latvia conducted an assessment of Latvia's payment system in line with the first assignment of the ECB assessment methodology for the first time, applying the data for 2008. In 2012, the Bank of Latvia implemented the first phase of the assessment of Latvia's payment systems in accordance with the updated ECB assessment methodology, applying the data for 2011. In some cases the ECB methodology applied by the Bank of Latvia differed from the provisions stipulated therein due to the fact that the value of Latvia's payment system and the value of payments and assets of its participants are smaller than the payment systems and market participants of the EU. All payment systems of Latvia were assessed: the payment systems maintained by the Bank of Latvia (the SAMS, EKS and TARGET2-Latvija), the FDL, AMS and PNS.

In the first assessment phase of the payment system oversight two-step matrices: high-level matrix "Comparison of Latvia's Payment Systems" and a number of sub-matrices were used to compare the payment systems mutually by determining their importance and oversight status. High-step matrix for each payment system includes the assessment of the following three areas.

1. Payment system's importance	<p>The impact of the respective payment system on the financial stability and promotion of national currency are described in the assessment. The assessment is expressed in points from 0 to 10, applying the point estimate obtained in seven sub-matrices to the following components of payment systems:</p> <ul style="list-style-type: none"> – the value of payments made, – the share of important participants, – substitutability of a system, – interdependence of payment systems, – relevance for monetary policy operations, – impact on the national economy, – visibility of a system.
2. Oversight status	<p>The current level of the relevant payment system oversight is determined in the assessment. The assessment is expressed as follows: from "very low" to "very high", applying the estimate obtained in four sub-matrices to the following activities of oversight:</p> <ul style="list-style-type: none"> – the last assessment time, – deadline for implementing recommendations, – type of oversight activities, – regular activities by the overseer.

3. Oversight priority	The assessment stipulates future oversight priority of the respective payment system. The assessment is expressed in points calculated by aggregating the obtained assessments of the payment system's importance and oversight status in accordance with the specific table.
-----------------------	---

1. Payment system's importance

1.1 The value of executed payments

The payment systems are assessed in accordance with the total value of the average daily payments executed in 2011 (0 – the lowest; 10 – the highest). Given a lower total value of payments executed via Latvia's payment systems, the scale applied to the methodology developed by the ECB was pro-rata reduced.

Points	The payment value according to the ECB methodology (in billions of euro)	The adjusted payment value (in millions of lats)
10	>350	>350
9	300–350	300–350
8	250–300	250–300
7	200–250	200–250
6	150–200	150–200
5	100–150	100–150
4	50–100	50–100
3	10–50	10–50
2	5–10	5–10
1	0–5	0–5

Sub-matrix 1. "The value of executed payments"

	SAMS	EKS	FDL	AMS	PNS	TARGET2-Latvija
A daily average of the executed payment value (in 2011; in millions of lats)	544.76	55.40 ⁴	r.i.	r.i.	2.55	622.84
Points	10	4	2	1	1	10

1.2 The share of important participants

In 2011, the ECB updated the methodology for the identification of important participants, stating that important participants are identified on the basis of an analysis of interdependence among financial institutions. Pursuant to the above analysis, the first 20 participants participating in the highest number of infrastructures shall be deemed important participants.

The payment systems are assessed against the number of important participants in the system (10 points are assigned, if $\geq 90\%$ of important participants participate in the

⁴ In 2011, the daily average value of payments made in lats via the EKS amounted to 47.61 million lats, and that of payments executed in euro via the EKS was 7.79 million lats. The total average value of payments made via the EKS per day stood at 55.40 million lats in 2011.

system, 9 points – if 80%–89% participate in the system, 8 – if 70%–79% are in the system, 6 – if 50%–59% are in the system; 5 – if 40%–49% are in the system; 4 – if 30%–39% are in the system; 3 – if 20%–29% are in the system; 2 – if 10%–19% are in the system; 1 – if 1%–9% are in the system; 0 – if 0% are in the system).

Only two participants of Latvia's payment system are included in the ECB's list of important participants, therefore the Bank of Latvia also applied other criteria for the assessment of a credit institution's importance in Latvia's payment system:

- of the total value of payments executed via the SAMS, the share of the average daily value of payments executed by a credit institution in the SAMS exceeds or equals 2% (such a criterion of 2% is applied by the ECB when determining the status of a critical participant in TARGET);
- the volume share of the average daily payments executed by a credit institution in lats via the EKS exceeds or equals 2%;
- of the total volume of customer payments executed by all participants in Latvia's payment system, the volume share of customer payments effected by a credit institution per annum exceeds or equals 2%;
- of the total number of customer payment accounts opened by all participants in Latvia's payment system, the volume share of the customer payment accounts opened by a credit institution exceeds or equals 2%;
- of the total number of payment cards issued by all participants in Latvia's payment system, the number of payment cards issued by a credit institution exceeds or equals 2%.

A credit institution was deemed to be an important participant in Latvia's payment system, where it met all the above criteria simultaneously. Pursuant to the data for 2011, five credit institutions were important participants in Latvia's payment system.

The total share of the participants in the systems was estimated by assessing the share of important participants in Latvia's payment system and that of the participants estimated in the ECB analysis of interdependence. Based on the fact that the criteria for determining important participants were developed for Latvia's payment systems, while the ECB's list of important participants was compiled, taking into account the involvement of the participants in the European infrastructure, the share of the participants in Latvia's payment systems and that of the participants estimated in the ECB analysis of interdependence were included at the ratio of 9 to 1 in order to estimate the share of the participants in Latvia's payment systems.

All important participants participated in the SAMS, EKS, FDL, AMS and TARGET2-Latvija. The share of the above participants in the systems amounted to 90%, given the estimated ratio. Of the important participants involved in the ECB analysis of interdependence, only two of 20 participants participated in the SAMS, EKS, FDL, TARGET2-Latvija and only one of them – in the AMS. Hence the share of such participants was 10%, subject to the analysis of interdependence, whereas taking into the account the above ratio it was only 1%. The total share of important participants in the SAMS, EKS, FDL, AMS and TARGET2-Latvija was 91%.

Sub-matrix 2. "The share of important participants"

Payment system	SAMS	EKS	FDL	AMS	PNS	TARGET2-Latvija
The share of important participants (%)	91	91	91	91	0	91
Points	10	10	10	10	0	10

1.3 The system's substitutability

The payment systems were assessed depending on their substitutability in the event that the relevant payment system would cease to function, i.e. whether there was an alternative for the settling of payments made in such a payment system by other means or in other systems (0 – several alternatives, 10 – no alternative).

Other payment systems, correspondent banking arrangements, cash payments as well as other types of payment instruments were deemed to be the potential alternatives. Each payment system of Latvia was assessed depending on the system's market share in the respective payment types (the larger the system's market share, the less alternatives for the replacement of such payment systems) and the available alternatives for payment execution.

The SAMS

The Bank of Latvia's real time large-value interbank settlement system, the SAMS, enables the settlement in the Bank of Latvia's monetary policy operations, interbank payments, the final settlement of other payment and securities settlement systems and large-value or urgent customer credit transfers. In 2011, of all interbank credit transfers executed in lats in Latvia, the above system's share in interbank payments amounted to 96.8% (88.8% – in 2008) in terms of the value. The minor share of the SAMS in customer payments notwithstanding (0.1% in terms of the volume of all interbank customer credit transfers executed in lats in Latvia), the SAMS was used for urgent or large-value customer payments and was the only system offering real-time settlement for payments made in lats. The system was not substitutable in the settlement of the Bank of Latvia's monetary policy operations and the final settlement of other payment and securities settlement systems. The SAMS was actually not substitutable regarding the execution of payments in lats on interbank money market, and there was also no alternative with respect to the customer payments executed in the SAMS. Thus the substitutability of SAMS was rated at 10.

The EKS

The Bank of Latvia's retail payment system, the EKS, enables the processing of customer credit transfers executed in two currencies – in lats and euro. The EKS is mainly used for the payments executed in lats. In 2011, the EKS processed 74.7% of the entire interbank customer credit transfers executed in lats in Latvia (75.2% – in 2008). The payments executed mutually by four banks subject to an arrangement accounted for other payments. In the case of the EKS unavailability, a limited value of payments in lats would be processed in the SAMS; however, the capacity of SAMS would not allow processing of the entire (137.0 thousands) average daily payments executed in lats via the EKS. Hence the possibility to replace the processing of the lats payments in the EKS with that effected in the SAMS was minor.

In 2011, the EKS processed 6.2% of all customer credit transfers effected in euro in Latvia (5.6% – in 2008). Of all payments executed via the EKS, the share of payments made in euro via the EKS was moderate (14.3% and 1.3% in terms of the value and volume respectively). The EKS was substitutable regarding the execution of payments in euro, since such payments could be made via other systems.

The substitutability of the EKS was rated at 7, taking into account that the EKS processed the majority of all interbank customer credit transfers executed in lats in Latvia and it was impossible to process all the above payments by any other means while the share of the payments made in the euro via the EKS was moderate and such payments could be made in full amount by means of other alternatives.

The FDL

The system provides the settlement of low value card payments and calculates the card transaction net positions in lats. Card payments are executed at POS terminals, ATMs and via Internet. In 2011, the market share of FDL in the entire card payments accounted for r.i. Some banks provided the settlement of their card payments outside the FDL, through the direct agreements with international card schemes or via the systems of parent companies. Cash payments were an alternative to card payments executed at POS terminals for the purchase of goods and services, however, should there be a disruption in the FDL operation, the customers would also be unable to withdraw cash from ATMs.

The currency in circulation at the household disposal per annum was assessed, in order to estimate the number of card payments replaceable with cash payments. Taking into account that individuals withdraw cash from bank accounts by means of ATMs or as OTC transactions, the difference between the cash withdrawals and cash deposits at ATMs and cash desk describes the currency in circulation at the disposal of the households. In 2011, 6 801.75 million lats were withdrawn from ATMs and cash desks, and 4 315.09 million lats were deposited in ATMs and at cash desks. Hence it may be deemed that 2 486.66 million lats were available to individuals in 2011. In 2011, the value of card payments amounted to 1 159.93 million lats, suggesting that card payments were well replaceable with cash payments.

At the end of 2011, 1.1⁵ payment cards were issued per capita in Latvia and population increasingly benefited from the user-friendliness of payment cards. Therefore some strata of society may encounter difficulties when problems affect the settlement for purchases at POS terminals and withdrawing cash at ATMs.

Card payments for internet-linked purchases amounted to 9.1% (4.0% in 2008) of all card payments executed in 2011 with the cards issued in Latvia. Credit transfers via Internet banking were a good alternative to card payments for internet-linked purchases. Taking into account the market share of FDL, this system could be rated at 6 points, albeit the rating was halved due to the option of replacing card payments with cash. The substitutability of FDL was rated at 4 points, given the growing popularity of card payments, including the rising value of card payments for internet-linked purchases.

⁵ Latvia's payment statistics for 2011 compiled by the Bank of Latvia:
<http://www.bank.lv/statistika/datu-telpa/galvenie-raditaji/latvijas-maksajumu-statistika>

The AMS

The AMS is the sole system processing interbank direct debit payments. The majority of direct debit payments are executed in Latvia as intrabank transfers without the support of AMS (both the payer and payee are the customers of the same bank). However, the AMS provided the processing of direct debit payments for some Latvian banks also in intrabank payments. Of all direct debit payments processed in 2011, the market share of AMS accounted for r.i. in terms of the volume. As regards interbank direct debit payments, the AMS was not substitutable, however, corporates held accounts with several banks and could process direct debit payments at each of the banks instead of executing the interbank direct debit payments. The substitutability of AMS was rated at 6.

PNS

The system processes a large volume of retail customer payments and has unique country-wide network coverage. In 2011, the PNS only processed 4.0% of all customer payments handled in Latvia's payment system (8.6% in 2008). The payments at credit institutions, cash or card payments could be used as an alternative solution to the payments made at the PNS; however, the system's substitutability was rated at 1, taking into account the fact that the payments were made at the PNS by individuals who did not use banking services on a regular basis and the inaccessibility of banking services in some rural areas.

TARGET2-Latvija

The system processes large-value interbank and customer payments in euro and the final settlement of the EKS in euro. In 2011, of all interbank credit transfers executed in euro in Latvia, the share of TARGET2-Latvija in interbank payments amounted to 39.5% (10.9% – in 2008) in terms of the volume. The share of interbank payments in TARGET2-Latvija was 91.6% and that of customers amounted to 8.4% respectively.

As regards the provision of the final settlement of the payments executed in the EKS in euro, TARGET2-Latvija was not interoperable. Nonetheless, the system was well-substitutable in interbank payments processed through the euro correspondent banking network. The interoperability of TARGET2-Latvija was rated at 4.

Sub-matrix 3. "The system's substitutability"

Payment system	SAMS	EKS	FDL	AMS	PNS	TARGET2-Latvija
Points	10	7	4	6	1	4

1.4 Payment system interdependence

Pursuant to the methodology, the payment systems are assessed depending on their impact on other systems' ability to ensure settlement, identifying the following: the number of systems whose final settlement is ensured by the relevant payment system, the value of such settlement and importance of other interdependent systems.

The SAMS has been rated at 10 since it provides the basis for the last payment infrastructure and has ensured the final settlement of four payment systems: the EKS, FDL, DENOS and AMS.

TARGET2-Latvija was rated at 3, taking into account the fact that TARGET2-Latvija ensured the settlement for the EKS and processed as many payments as the SAMS in 2011. Other payment systems did not provide the settlement for other systems in 2011.

Sub-matrix 4. "Payment system interdependence"

Payment system	SAMS	EKS	FDL	AMS	PNS	TARGET2-Latvija
Points	10	0	0	0	0	3

1.5 Relevance for monetary policy operations

The payment systems are assessed depending on their use in the monetary policy operations (0 – a system is not used in monetary policy operations; 10 – the only system used in monetary policy operations).

In 2011, only the SAMS was used for cash settlement of the Bank of Latvia's monetary policy operations.

Sub-matrix 5. "Relevance for monetary policy operations"

Payment system	SAMS	EKS	FDL	AMS	PNS	TARGET2-Latvija
Points	10	0	0	0	0	0

1.6 Direct spill over effects on non-financial sector

The payment systems are assessed depending on the extent to which they support and affect a wide range of economic activities, such as the goods and services sector, households and companies (0 – minor impact; 10 – very wide impact).

The Bank of Latvia applied the following criterion: the volume share of customer payments processed via the systems in all customer payments executed in Latvia. Natural and legal persons use the above payments for performing their business activities and settling for goods and services.

Sub-matrix 6. "Direct spill over effects on non-financial sector"

Payment system	SAMS	EKS	FDL	AMS	PNS	TARGET2-Latvija
The share in the customer payment volume (in 2011; %)	<0.1	15.2	r.i.	r.i.	4.3	3.3
Points	0	2	4	0	0	0

1.7 System's visibility

The payment systems are assessed, depending on the extent to which the general public might notice the system's unavailability in the case of failures and incidents that would impair the system's reputation and have a direct impact on the public. The system's visibility is assessed as follows:

- 10 – almost everyone notices the system's unavailability or problems;
- 7 – the majority of general public notices the system's unavailability or problems;
- 4 – a limited number of persons notice the system's unavailability or problems;
- 2 – an insignificant number of persons notice the system's unavailability or problems;
- 0 – general public does not notice the system's unavailability.

The system's visibility was assessed, depending on the volume of customer payments processed therein, since in the case of unavailability of the respective system the customers would not be able to execute a payment and settle for goods and services and thus, in most cases, the above unavailability would be immediately visible to the customers. The visibility of FDL was rated at 7, since the majority were cash payments executed in Latvia despite the fact that the card payments were widespread. The visibility of other payment systems was rated pro-rata, considering the volume of customer payments in other systems.

Sub-matrix 7. "System's visibility"

Payment system	SAMS	EKS	FDL	AMS	PNS	TARGET2-Latvija
Volume of customer payments (in 2011; in millions)	0.1	35.1	r.i.	r.i.	9.5	0.3
Points	0	3	7	0	1	0

1.8 Overall assessment of the importance of a payment system

The overall assessment was expressed in points from 0 to 10 as the average of seven sub-matrices' assessments to which equal weight was applied by the Bank of Latvia.

Overall assessment of 2011

Payment system	SAMS	EKS	FDL	AMS	PNS	TARGET2-Latvija
Value of the executed payments	10	4	2	1	1	10
Share of important participants	10	10	10	10	0	10
System's substitutability	10	7	4	6	1	2
Payment system interdependence	10	0	0	0	0	3
Relevance for monetary policy operations	10	0	0	0	0	0
Direct spill over effects on non financial sector	0	2	4	0	0	0
System's visibility	0	3	7	0	1	0
Overall assessment	7	4	4	2	0	4

The PNS has not been included in the further assessment of the oversight status since the overall assessment of the PNS is rated at 0.

2. Oversight status

The current oversight status of payment systems is assessed with respect to four aspects of the oversight; each of them is expressed in points from 0 to 5, presenting such points in the relevant oversight sub-matrix.

2.1 Time of the most recent assessment of payment systems

Time of the most recent assessment of payment systems shows the recency⁶ of the valid assessment of payment system's conformity with the oversight standards. The assessment performed recently, i.e. in the current year is rated at five points, while that performed earlier is rated one point lower per year.

Sub-matrix 1. "Time of the most recent payment system assessment"

Payment system	SAMS	EKS	FDL	AMS	PNS	TARGET2-Latvija
Assessment year	2011	2011	2008	2011	–	2011
Points	5	5	2	5	–	5

2.2 Implementation of the recommendations

In 2011, the ECB changed the methodology and proposed to assess the implementation of the recommendations against the number of recommendations given during the oversight of the relevant payment system and its compliance to that effect. The amended

⁶ Following international practice, payment systems are assessed against the "Core Principles for Systemically Important Payment Systems" (hereinafter, the Core Principles) published by the Bank for International Settlements.

methodology specifies the scope of the oversight of a particular payment system, thereby monitoring the compliance with the recommendations. The implementation of the recommendations is assessed as follows:

- 5 – pursuant to the latest assessment, no improvements are required or all recommendations are implemented;
- 4 – one or two recommendations have not been implemented yet;
- 3 – three or four recommendations have not been implemented yet;
- 2 – five and more recommendations have not been implemented yet;
- 1 – one or several recommendations fostering the revision of the oversight level were given and have not been implemented yet;
- 0 – assessment has not been performed or one or several oversight standards have not been implemented.

Pursuant to the latest assessment, the SAMS, EKS, FDL and TARGET2-Latvija required no improvements or all recommendations were implemented, hence the compliance with the recommendations was rated at 5. The AMS was rated at 4, taking into account the fact that a full assessment was performed in 2011 and one of the three recommendations was implemented in 2012.

Sub-matrix 2. "Implementation of the recommendations"

Payment system	SAMS	EKS	FDL	AMS	PNS	TARGET2-Latvija
Points	5	5	5	4	–	5

2.3 Type of the oversight activities

As regards the payment system oversight, it is also important to assess the type of the respective payment system's oversight. The more extensive the oversight measures, the less the need to strengthen the oversight of the relevant payment system. The type of the oversight is rated as follows:

- 5 – full assessment is performed;
- 4 – assessment is revised on a regular basis;
- 3 – specific risks are assessed;
- 2 – regular surveys are conducted;
- 1 – one-off survey is conducted;
- 0 – oversight activities have not been carried out so far.

Sub-matrix 3. "Type of the oversight activities"

Payment system	SAMS	EKS	FDL	AMS	PNS	TARGET2-Latvija
Points	4	5	5	5	–	5 ⁷

⁷ TARGET2 system has been assessed within the overall ESCB framework of oversight.

2.4 Regular oversight activities

The regular oversight activities are assessed, taking into account the number and also the frequency of the relevant oversight activities. Five regular oversight activities are distinguished pursuant to the methodology: analysis of statistical information, analysis of incidents and systemic risks, simulation of the system's operation, contacts with the system's operator and reporting.

Number of the activities	Average frequency of the oversight activities	Points
5	Monthly or quarterly	5
5	Semi-annual	4
5	Annual	2
4	Monthly or quarterly	4
4	Semi-annual	3
4	Annual	1
3	Monthly or quarterly	3
3	Semi-annual	2
1-2	Monthly or quarterly	1
1-2	Semi-annual	0
1-3	Annual	0
0	–	0

The regular oversight activities of the SAMS, EKS and TARGET2-Latvija comprised three activities, performed on a monthly or quarterly basis, while two activities were performed annually, hence the regular oversight activities of the above systems were rated at 3 points. The oversight activities of the FDL and AMS were rated at 1 point.

2.5 Overall assessment of oversight status

In high-step matrix, the assessment of oversight status is obtained as an average of four sub-matrices' points expressed as follows: "very high" to "very low" (1 – "very low"; 2 – "low"; 3 – "average"; 4 – "high" and 5 – "very high").

Overall assessment of 2011

Payment system	SAMS	EKS	FDL	AMS	PNS	TARGET2-Latvija
Time of the most recent assessment of a payment system	5	5	2	5	–	5
Implementation of the recommendations	5	5	5	4	–	5
Type of the oversight activities	4	5	5	5	–	5
Regular oversight activities	3	3	1	1	–	3
Overall assessment	4 – "high"	5 – "very high"	3 – "average"	4 – "high"	–	5 – "very high"

3. Oversight priority

The assessment of the oversight priority has been expressed in points calculated by aggregating the obtained assessments of payment system's importance and oversight status in accordance with the specific table.

Table of the further oversight priority modification

Importance of infrastructure \ Oversight status	1	2	3	4	5	6	7	8	9	10
Very low	3	4	5	6	8	9	10	10	10	10
Low	2	3	4	5	7	8	9	10	10	10
Average	1	2	3	4	5	6	7	9	10	10
High	0	1	2	3	4	5	6	9	10	10
Very high	0	0	1	2	3	4	5	8	10	10

The table is prepared so as to present high oversight priority in the cases when the importance of infrastructure is high, irrespective of the oversight status. The oversight priority of less important systems declines, with the oversight status increasing. This approach has been selected to ensure the oversight priority of those less important systems which have been less focussed on previously, while oversight priority would always be high regarding the most important systems.

4. High-step matrix "Comparison of Latvia's payment systems"

Overall assessment of 2011

Payment system	SAMS	EKS	FDL	AMS	PNS	TARGET2-Latvija
Importance of a payment system	7	4	4	2	0	4
Oversight status	4 – "high"	5 – "very high"	3 – "average"	4 – "high"	–	5 – "very high"
Oversight priority	6	2	4	1		3

The first step of the risk-based assessment supported the oversight priority of the Bank of Latvia's payment system policy, focusing primarily on the SAMS, including its day-to-day oversight. As regards retail payment systems, the primary oversight focus should be on the FDL in the forthcoming periods, reaching agreement on the performance and time frame for updating the system's assessment against the Core Principles and debating about the issues pertaining to the system's role in SEPA card payments. As regards the AMS, the issue of implementing the oversight recommendations has to be put forward.

Considering the results obtained during the first step of the risk-based oversight assessment, the second step of the SAMS oversight assessment against the categories of risk was performed, taking into account the impact of a specific risk, its probability and the implemented risk mitigation measures.

The SAMS is a systemically important payment system maintained by the Bank of Latvia and its rules and procedures provide for the compliance with the oversight principles and effective legislative acts in the area of payment systems. Owing to the structure of the SAMS rules the SAMS participants are aware of financial risks arising from the participation in the system, while the possibility of liquidity risk arising in the system and interdependence of the participants are contained, with the Bank of Latvia's option for granting intraday credit to the participants. The risk regarding the settlement funds is non-existent since the settlement is made in the participants' accounts with the Bank of Latvia.

Performing a detailed assessment of the impact of the SAMS risks and the probability and risk containment measures, the oversight priorities of the system's risks and functions were established during the second step of the risk-based assessment. It follows from the results of the assessment that the SAMS operation and ensuring the relevant functions are most exposed to the impact and probability of the operational risk. Hence, upon performing the SAMS oversight the focus should mainly be on the operational risk. The real-time settlement function is subject to the operational risks most, and these risks would also affect the system's operation substantially in contingency situations.

The assessment was compliant with "The Bank of Latvia's Procedure for the Oversight of Systemically Important Payment and Securities Settlement Systems, Clearing and Retail Payment Systems and Compilation of the Payment Instrument Statistics", stipulating that upon the performance of the SAMS daily oversight the main focus

should be on the analysis of the disruptions of the system's operation, thus mitigating the operational risk.

APPENDIX 3. THE BANK OF LATVIA'S ACHIEVEMENTS IN THE SEPA PROJECT

In 2012, the Bank of Latvia continued to steer the NSWG, coordinating the cooperation among the representatives of the payment market supply side (ACBL, *Latvijas Pasts*, FDL, JSC *Itella Information*, Latvian Information and Communications Technology Association) and representatives of the demand side (the Consumer Rights Protection Centre, MVKAKP, LDDK, Treasury, Ministry of Finance of the Republic of Latvia and Bank of Latvia). The representatives of the respective institutions and associations coordinated, within the scope of their competence, the current assignments for the integration into SEPA. The MPSWG performed the supervision of the NSWG.

The Bank of Latvia monitored the drafting of Version 4.0 of Latvia's National SEPA Plan. Latvia's National SEPA Plan was amended by incorporating the information on:

- the practical aspects of maintaining the SEPA creditor identifier in the databases of the Enterprise Register of the Republic of Latvia;
- the commitment of the companies using the electronic settlement systems offered by credit institutions and making payments that are combined in files for common sending to introduce the national standard complying with UNIFI ISO (20022) XML standard;
- the fact that the SEPA direct debit payment infrastructure will not be developed in Latvia. By 1 September 2013, Latvian credit institutions, companies and JSC *Itella Information* will search for opportunities to introduce the most effective costs related alternative solution which will replace the national direct debit payments by 1 January 2015;
- the fact that, taking into account the economic justifications, *Latvijas Pasts* will not provide its customers with direct debit payments as of 1 January 2014.

On 14 September, the Payment Committee of the ACBL reviewed Version 4.0 of Latvia's National SEPA Plan, and the NSWG approved it on 9 November.

Reviewing Latvia's National SEPA Plan, the market participants agreed not to develop the SEPA direct debit infrastructure but to search for an alternative solution for SEPA direct debit payments to replace the national direct debit payments as of 1 January 2015. The NSWG made appropriate amendments regarding the SEPA direct debit payment infrastructure to the National SEPA Plan and corrected high level SEPA implementation measures in Annex 1 "The Action Plan for Introduction of the Single European Currency in Latvia" to Latvia's National Euro Changeover Plan. Amendments to the action plan for high level SEPA implementation measures along with Version 4.0 of Latvia's National SEPA Plan were approved on 26 November 2012 by the NSWG. In 2012, the Bank of Latvia drafted Progress Report No. 8 and Progress Report No. 9 of the NSWG for submission to the MPSWG.

To monitor the implementation progress of SEPA payments in the payment system of Latvia, the Bank of Latvia proceeded with the compilation of SEPA credit transfer indicators, SEPA direct debit indicators and SEPA indicators of the SEPA Card Framework.

In the fourth quarter of 2012, the SEPA credit transfers stood at 97.6% (1 072 thousands) of the credit transfers executed in euro (excluding the credit transfers in euro made to third countries and urgent credit transfers in euro).

The four main indicators of the SEPA Card Framework in Latvia at the end of 2012 were as follows: 1) 1 270 ATMs of Latvian banks (100%) had migrated to Europay-Mastercard-Visa (EMV) and were compliant with the SEPA requirements; 2) 24.4 thousand POS terminals (99.3%) had migrated to EMV; 3) 1 858.6 thousand debit cards (99.2%) were compliant with the EMV Standard and SEPA requirements; and 4) 520.9 thousand credit cards (99.3%) were compliant with the EMV Standard and SEPA requirements.

In 2012, 88.6% of all euro and lats payments with cards were based on the EMV Standard. At the end of 2012, 98.8% of Latvian e-merchants used *3D Secure* technologies in e-commerce environment and 53.3% of all cards were registered for *3D Secure* technology. In the second half of 2012, 79.5% of e-commerce transactions executed in the country were consistent with the requirements of *3D Secure* technologies.

In 2012, the Bank of Latvia was engaged in the following key activities of the SEPA Project.

- In-between 11 January and 11 April, the Bank of Latvia coordinated the public consultation opened by the EC market on card, internet and mobile payments. In the consultation period, the Bank of Latvia participated in the Payment Committee of the ACBL and debated about the EC Green Paper Towards an Integrated European Market for Card, Internet and Mobile Payments in the meeting of the Sub-group of the National SEPA Card Framework and invited the participants to answer the questions during the consultation opened by the EC.
- In 2012, the Bank of Latvia participated in the meeting of the SEPA Working Group of the ACBL on the requirements regarding the payment service providers of the Regulation of the European Parliament and of the Council (EU) No. 260/2012 of 14 March 2012 establishing the technical requirements for credit transfers and direct debits in euro and amending Regulation (EC) No. 924/2009.
- On 25 September, the Bank of Latvia organised meetings with credit institutions and the Enterprise Register of the Republic of Latvia on the practical aspects of implementing the SEPA creditor identifier. The discussion participants agreed that the SEPA creditor identifier would be assigned by the Enterprise Register of the Republic of Latvia. Information on the SEPA creditor identifier will be publicly available together with other information on the legal entity of Latvia (the registration number, name, legal address). The SEPA creditor identifier will be created in accordance with the structure of the SEPA creditor identifier. The SEPA creditor identifier will be maintained in the databases of the Enterprise Register of the Republic of Latvia as of the euro changeover day.
- Taking into account the decision by JSC *Itella Information* to recall a previous commitment to ensure the SEPA direct debit payment infrastructure, an ad hoc meeting of the NSWG was held where the participants agreed that the SEPA direct debit payment infrastructure will not be developed in Latvia, but by 1 September 2013, Latvian credit institutions, companies and JSC *Itella Information* will search for opportunities to introduce the most effective costs related solution replacing the national direct debit payments by 2015. On 7 December 2012, a representative of the Bank of Latvia participated in the debate organised by the ACBL about an alternative solution for SEPA direct debit payments.
- In April 2012, the Bank of Latvia coordinated the preparation of the answer to

the ECB survey for payment card handlers. In April, the Bank of Latvia participated in the consultation opened by the EC Payment Committee regarding virtual currency schemes and in cooperation with the FCMC prepared the answer in the consultation.

- In August 2012, the Bank of Latvia coordinated the collection of answers in the survey conducted by the ECB on the migration of the public institutions to SEPA. The Bank of Latvia, the Treasury, the State Social Insurance Agency, the SRS and the Ministry of Finance of the Republic of Latvia participated in the survey.

The Bank of Latvia organised the meetings of the Sub-group of the SEPA Card Framework of the NSWG, which took place on 24 January, 3 April, 10 September and 12 December. The Sub-group of the SEPA Card Framework continued its work commenced in the previous period as well as approved several recommendations for the card framework stakeholders:

- on 26 January, published the approved Latvian translation of the self-assessment questionnaires of the card payment security;
- on 28 February, the Payment Cards Committee of the ACBL published information on the installation of POS terminals and compliance with the SEPA technical requirements for Latvian merchants.

A representative of the Bank of Latvia together with the Euro Project Manager of the Ministry of Finance of the Republic of Latvia participated in the Eighth and Ninth Forum of the SEPA National Working Groups organised by the EC on 22 June and 23 October 2012. The representatives of Latvia presented a progress report on the SEPA Project in Latvia. The participants of the Forum dealt with the migration process of the SEPA core products in each Member State and SEPA management issues.

From 16 May to 13 August, the Bank of Latvia organised the preparation of an answer of the NSWG regarding the European Payment Council (EPC) consultation on amendments made to the EPC Scheme Rulebooks, as well as participated in the meeting of the SEPA Working Group convened by the ACBL on 24 July 2012, at which the EPC proposals were addressed. The Bank of Latvia published information on the changes of the EPC Rulebooks on the National SEPA Latvia website.

Within the framework of the SEPA communication process, information on the National SEPA implementation Plan was updated and information on the national data related to the SEPA migration end-date was provided on the ECB website. The Bank of Latvia ensured that the topical information on the SEPA Project was available on the National SEPA Latvia website throughout the year.

APPENDIX 4. THE BANK OF LATVIA'S ACHIEVEMENTS IN TARGET2-SECURITIES PROJECT

To promote integration of Latvia's securities settlement systems into the harmonised process of securities settlement in euro encompassing the EU Member States, the Bank of Latvia engaged in T2S Project in the capacity of the securities settlement system overseer. The settlement of securities transactions will be harmonised and cross-border settlement costs incurred by the securities market participants will be reduced as a result of implementing the above Project. In 2012, the Bank of Latvia continued to steer the Latvian T2S NUG by coordinating the cooperation among the representatives of the LCD, Bank of Latvia, FCMC, Treasury and ACBL. At the same time, the representatives of the respective institutions, within the scope of their competence, coordinated the assignments regarding the implementation of T2S Project.

The Latvian T2S NUG reviewed the feasibility assessments made by the Bank of Latvia and the LCD for participation in T2S. The LCD, in accordance with the feasibility assessment made, identified no obstacles regarding the migration to T2S. The LCD, in accordance with the feasibility assessment made, identified no obstacles regarding the migration to T2S, but pointed out that the above migration might be hindered due to a moderate volume of euro settlements and uncertainty about the euro changeover in Latvia at the time the LCD had to sign the Adherence Agreement (29 June 2012) as well as the necessity to carry out the technical adjustment of DENOS to T2S platform. The LCD also indicated that on 21 June 2012, the LCD Management Board taking into account the findings of the feasibility assessment decided to postpone the decision on signing T2S Agreement until autumn 2012. Following the consultation with the LCD participants held in autumn 2012, the LCD Management Board postponed the decision on signing T2S Agreement until the end of summer 2013.

In 2012, the Bank of Latvia was engaged in the following key activities of T2S Project.

On 20 January, the Bank of Latvia participated in the meeting of T2S project managers of the national central banks organised by the ECB, where information on the development of T2S project, the contents of the feasibility assessment to be conducted for participation in T2S as well as the role of the central banks in T2S system and the connections required for them was provided.

On 14 March, the Bank of Latvia participated in the T2S meeting with the representatives of the T2S NUG of the countries organised by the ECB, where the participants of the meeting dealt with the following most relevant issues: the T2S project news, including in each Member State, the management of T2S during the transition period, the harmonisation of the securities market and the agenda of the next Advisory Group meeting.

On 22 March, the Bank of Latvia participated in the meeting of T2S project managers of the national central banks organised by the ECB, where the participants of the meeting debated about the preparation of the feasibility assessment for participation in T2S by the national central banks and discussed the most topical T2S issues by meeting the representatives of the central securities depositories (CSD) of the EU countries and the national central banks: the preparation of the feasibility assessment for participation in T2S, requests for amendments made to T2S documents, testing and migration, training of the users, communication connections and planning of each institution's project.

On 23 April, the Bank of Latvia informed about the planned preparation of the feasibility assessment for participation in T2S at the meeting of the Latvian T2S NUG.

On 7 June, the Bank of Latvia completed the feasibility assessment for its participation in T2S. The assessment comprises the evaluation of the legal environment and the proposal to ensure the Bank of Latvia's technical connection to T2S and assesses the feasibility of the Bank of Latvia's roles in T2S, with the necessary functional, operational, technical and organisational changes considered. Based on the study, a draft of a high level plan for launching the Bank of Latvia's participation in T2S has also been prepared. The Bank of Latvia identified no obstacles regarding the migration to T2S in the assessment.

On 8 June, the Bank of Latvia presented the results of the feasibility assessment for the Bank of Latvia's participation in T2S to the Latvian T2S NUG.

On 15 June, the Bank of Latvia reviewed the draft feasibility assessment made by the LCD.

On 20 June, the Bank of Latvia sent the feasibility assessment for its participation in T2S to the ECB, which considered it transparent and comprehensive and asked to evaluate the impact of the potential LCD decision not to join T2S on the Bank of Latvia and the necessity of TARGET2-Latvija participants to open T2S dedicated cash accounts (DCA) for settlements with other CSDs.

As of 1 July 2012, after the signing of T2S Framework Agreements with the Eurosystem and the CSDs, the changes in the management structure of T2S Project in the EU took effect, and the Bank of Latvia received the ECB's invitation to participate in the working groups of the project that would mainly deal with operational tasks. Thus, as of July 2012, the Bank of Latvia participated in the activities of T2S Project implementation more actively from the perspective of the payment and securities settlement operational function, while the overseers monitored these activities.

The Bank of Latvia reviewed the information submitted by the LCD on 27 September 2012 regarding the LCD's (in case of a positive decision) potential migration to T2S already in 2016 during any of three or four migration waves together with other CSDs of the Baltic States. The Bank of Latvia concluded that the postponement of the decision on the migration to T2S taken by the LCD does not represent material risks that the Latvian securities market could join T2S within the framework of the project plan established by the ECB.

On 28 November 2012, the LCD informed the participants of the Bank of Latvia's oversight meeting that notwithstanding the fact that the LCD has not yet signed the T2S Framework Agreement, the LCD has been involved as observer in the T2S CSD working group. The Bank of Latvia invited the LCD to inform the Bank of Latvia as soon as possible as to when the LCD would take a decision on its participation in T2S to launch the T2S implementation project at the Bank of Latvia in a timely manner.

Further tasks of the Latvian T2S NUG will depend on the LCD Management Board's decision on the migration to T2S.