

**PAYMENT SYSTEM OVERSIGHT CARRIED OUT
BY THE BANK OF LATVIJA IN 2009**



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INTRODUCTION

In accordance with international practice, the central banks are fully independent in exercising the oversight of the national payment system. Performing the payment system oversight, the central bank promotes smooth operation of the payment system by monitoring (compiling information on) the current and projected payment systems (interbank payment systems, retail payment systems and payment instruments), assessing them against the "Core Principles for Systemically Important Payment Systems" approved by the Committee on Payment and Settlement Systems of the Bank for International Settlement (hereinafter, the Core Principles), and inducing changes (if applicable) in order to balance their safety and efficiency. Oversight does not cover the following areas: fight against laundering of proceeds derived from criminal activity and terrorist financing, financial transactions or personal data protection, consumer protection and control of restrictive practices related to competition due to the fact that other institutions are held liable for the above activities. Payment system oversight differs from financial supervision in the following aspects: oversight is not related to monitoring the financial stability of the system's individual participants or compliance with the provisions stipulated by legislation. The performance of central banks' oversight functions mainly encompasses the following aspects: moral suasion, communicating its opinion to the public, exploring possibilities offered by the central bank's participation in a specific payment system (enabling a risk-free settlement in central bank money, various types of providing daily liquidity etc.) and cooperation with other institutions.

In Latvia, the payment system oversight is stipulated by Article 9 of the Law "On the Bank of Latvia", stating that the Bank of Latvia shall promote smooth operation of payment systems in the Republic of Latvia. The principles of the payment system oversight have been established in the document "The Bank of Latvia's Payment System Policy" approved by the Bank of Latvia Council's Resolution No. 89/10 of 13 September 2001. Pursuant to this policy, the Bank of Latvia oversees the systemically important payment systems, retail payment systems and payment instruments as well as provides advice to the public, cooperates with international institutions in the area of payment oversight and furnishes general public with information on the development of Latvia's payment system.

1. OVERSIGHT OF SYSTEMICALLY IMPORTANT PAYMENT SYSTEMS

In 2009, the Bank of Latvia, in the capacity of an overseer of the systemically important systems, performed the day-to-day oversight (including the analysis of statistical data) and assessed systemic risk, applying three indicators for the above purpose: 1) the share of the systems in the respective payment segment; 2) concentration ratio – the share of the five largest participants including the Bank of Latvia in the system and 3) the netting effect ratio (the efficiency of using settlement funds in the system).

1.1 The SAMS

In 2009, the SAMS was the only systemically important payment system. According to statistical data, the total volume of payments recorded an average monthly downslide of 1.4%, totalling 200.2 thousand per annum, while the total value of payments shrank on average by less than 0.1% per month and totalled 167.5 billion lats per annum. In 2009, the SAMS availability ratio was 99.79%. The analysis of systemic risk pointed to a persistently very low probability of systemic risk, albeit on an upward path compared with that a year ago.

In 2009, the SAMS was the only systemically important payment system in Latvia. It continued to ensure real-time gross settlement in lats in the Bank of Latvia monetary policy operations, large-value interbank payments, final settlement or netting of other payment systems operating in Latvia, and urgent customer payments.

In order to proceed with the evaluation of liquidity conditions in the system and notice the signs of operational risk on a timely basis, the following functions of a day-to-day or ongoing oversight were performed in 2009: collection and analysis of the SAMS statistical data and assessment of the system's availability and incidents.

Analysis of the system's statistical data

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

On 31 December 2009, there were 25 participants in the SAMS: one participant more than on 1 January 2009 as a new participant, the JSC *Latvijas Pasta banka*, joined the above system on 19 January 2009. All banks registered in Latvia and branches of foreign banks (21 banks and three branches of foreign banks) and the Bank of Latvia participated in the above system. In 2009, the total volume of payments executed via the SAMS recorded an average monthly downslide of 1.4% and totalled 200.2 thousand per annum, while the total value shrank on average by less than 0.1% per month, totalling 167.5 billion lats per annum (see Charts 1 and 2). In 2009, the value of payments effected via the SAMS decreased by 7.9% year-on-year.

The system's five largest participants initiated majority of payments processed in the SAMS (in terms of total value), with their share in total payment value standing at 85.1%.

In 2009, the share of interbank payment value in the SAMS reached 90.3%, that of customer payment value was 6.6% while the share of interbank and customer payment volume amounted to 39.3% and 49.3% respectively. The EKS and the systems of the

limited liability company First Data Latvia (the FDL) and Latvian Central Depository (the LCD) participated in the SAMS as ancillary systems. The share of final settlement of ancillary systems in the SAMS stood at 3.1% and 11.4% in terms of value and volume respectively.

Chart 1

Volume of payments processed in the SAMS (in thousands)

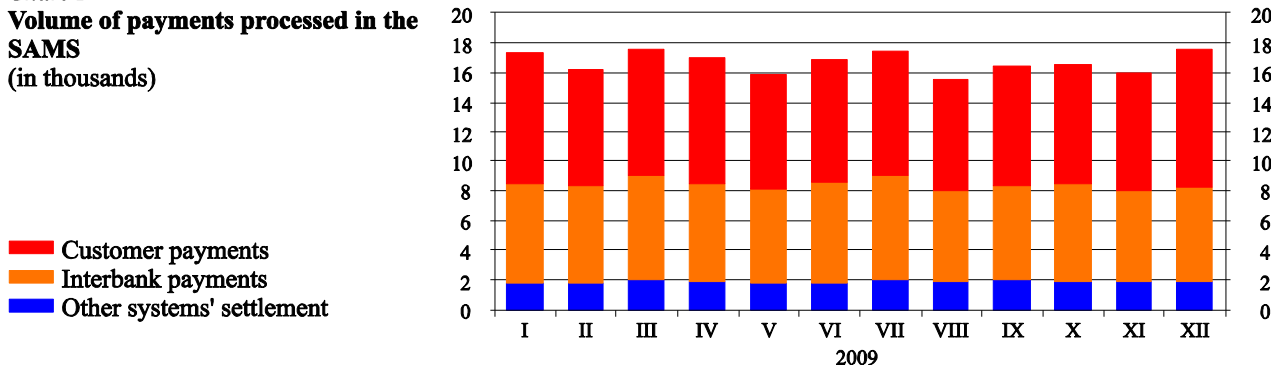
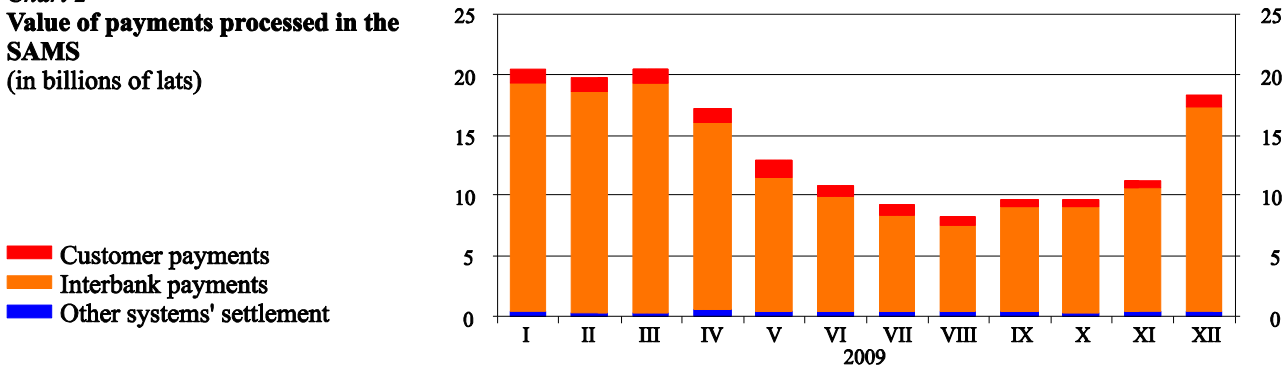


Chart 2

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



The overseers were promptly notified of the operational problems incurred by the SAMS or its maintenance resources, and the solution thereof.

In 2009, the SAMS availability ratio was 99.79% (99.97% in 2008). The system experienced 14 operational failures (the longest lasted 2 hours and 49 minutes) and overall, the SAMS was not available for 4 hours and 48 seconds (30 minutes and 30 seconds in 2008). 13 failures were temporary and related to the SWIFT connection or SWIFT line disruptions and did not cause any discontinuity of the Bank of Latvia's critical processes. Such system failures are managed and resolved in accordance with the Bank of Latvia regulation.

The overseers participated in the incident analysis and discussed with the system's operators the measures to prevent such incidents in the future.

Risk assessment

In 2009 as before, three indicators were analysed to assess systemic risk: 1) the share of the system in the respective payment segment; 2) concentration ratio and 3) the netting effect ratio. In 2009, 83.8% of all interbank credit transfers initiated in Latvia in lats were made via the SAMS and their share of value amounted to 88.2% (87.3% and 88.8% in 2008 respectively).

In 2009, the volume concentration ratio of the SAMS was 72.3% and the value concentration ratio stood at 85.1% (70.3% and 82.8% in 2008 respectively). Although the value concentration ratio of the SAMS exceeds the limit of 80% stipulated by the European Central Bank (the ECB), this development does not indicate a probability of any significant domino effect in the system, as one of the system's five largest participants is the Bank of Latvia, which is not exposed to any liquidity and credit risk.

The netting effect ratio of the SAMS characterising the utilisation of settlement funds in the case of gross settlement systems, was calculated as the ratio of the annual average value of daily payments sent by banks via the SAMS to the average daily balance on the bank accounts with the Bank of Latvia. In 2009, the above amounted to 443.7 million lats and 708.4 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). In 2009, funds on accounts were on average used 0.6 times in payments effected via the SAMS (0.4 times in 2008). Funds on accounts were on average used more than 0.8 times in payments effected via the SAMS from January to May and in December.

An increase notwithstanding, the netting effect ratio remained very low and hence the probability of systemic risk was low. In the large payment systems of Europe, the value of payments executed per day may even several times exceed that of funds available on the accounts.

The low netting effect ratio of the SAMS may be attributed to the fact that bank deposits held in lats accounts with the Bank of Latvia are used for both effecting payments and fulfilling the minimum reserve requirements stipulated by the Bank of Latvia. Thus the value of funds on these accounts several times exceeds the value required for payment execution.

1.2 The EKS

In 2009, the EKS was a systemically prominent retail payment system. In 2009, the monthly rise in the volume of lats payments processed in the EKS was 0.2% on average, totalling 31.8 million per annum, while the total value shrank by 0.8% and totalled 10.2 billion lats per annum. 252.5 thousand payments in the value of 1.3 billion euro were processed in the EKS in euro. The EKS availability ratio stood at 99.6%. The analysis of systemic risk pointed to a minimal probability of systemic risk. On 3 August 2009, the Bank of Latvia sent the European Payments Council an application letter regarding an intention to develop the EKS into a clearing and settlement infrastructure compliant with the SEPA Credit Transfer Scheme.

In 2009, the EKS was a systemically prominent retail payment system and the sole lats clearing (net settlement) system in Latvia for ensuring retail customer credit transfers among the banks of Latvia. Retail customer credit transfers in euro were also processed via the EKS. The EKS operated according to the principles of ACH (automated clearing house) ensuring automated payment processing of electronically submitted payments and the EKS net position or offsetting settlement each business day in two clearing cycles for each currency (in lats at 10.30 and 15.00; in euro at 11.00 and 15.30). The EKS net position or offsetting settlement in lats is executed via the SAMS and that in euro via TARGET2-Latvija.

Pursuant to the "Bank of Latvia's Payment System Policy", the Bank of Latvia performed the EKS oversight in compliance with the oversight principles for systemically important payment systems.

On 3 August 2009, the Bank of Latvia sent the European Payments Council an application letter regarding an intention to develop the EKS into a clearing and settlement infrastructure compliant with the SEPA Credit Transfer Scheme. In mid 2009, the Bank of Latvia conducted self-assessment of the EKS for SEPA compliance in accordance with the ECB "Terms of Reference for SEPA Compliant Infrastructures". The EKS self-assessment has been conducted, taking into account the EKS functionality which is to be ensured as of 12 November 2010. The self-assessment confirms compliance of the EKS with the SEPA requirements. The EKS self-assessment has been published under the ECB section dedicated to the SEPA infrastructures and on the national SEPA Latvija website (the Section of Self-assessments).

In 2009, a day-to-day or ongoing oversight of the EKS was performed by collecting and analysing the system's statistical data in order to identify the signs of operational risk on a timely basis.

Analysis of the system's statistical data

At the beginning of each month in 2009 (similar to the SAMS), the overseers compiled data on the payments executed via the EKS in the previous month. Data were disseminated on the Bank of Latvia website on a monthly basis and the detailed data were used for compiling the Bank of Latvia reports.

On 31 December 2009, there were 26 participants in the EKS (one participant more than on 1 January 2009) as a new participant, the JSC *Latvijas Pasta banka*, joined the above system on 19 January 2009. All banks registered in Latvia and branches of foreign banks (21 banks and three branches of foreign banks), the Bank of Latvia and the Treasury of the Republic of Latvia participated in the above system. *Svenska Handelsbanken AB* Latvia branch and JSC *Latvijas Pasta banka* only participated in lats settlement, the Treasury of the Republic of Latvia only participated in euro settlement while other participants settled in both currencies.

In 2009, the total volume of lats payments executed via the EKS recorded a monthly rise of 0.2% on average, totalling 31.8 million per annum, while the total value shrank by 0.8% and totalled 10.2 billion lats per annum. The average value per payment diminished to 320.25 lats (393.33 lats in 2008). 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 to 10.30), amounting to 67.9% and 57.2% in terms of volume and value respectively (see Charts 3 and 4).

Chart 3
Volume of lats payments processed in the EKS
 (in millions)

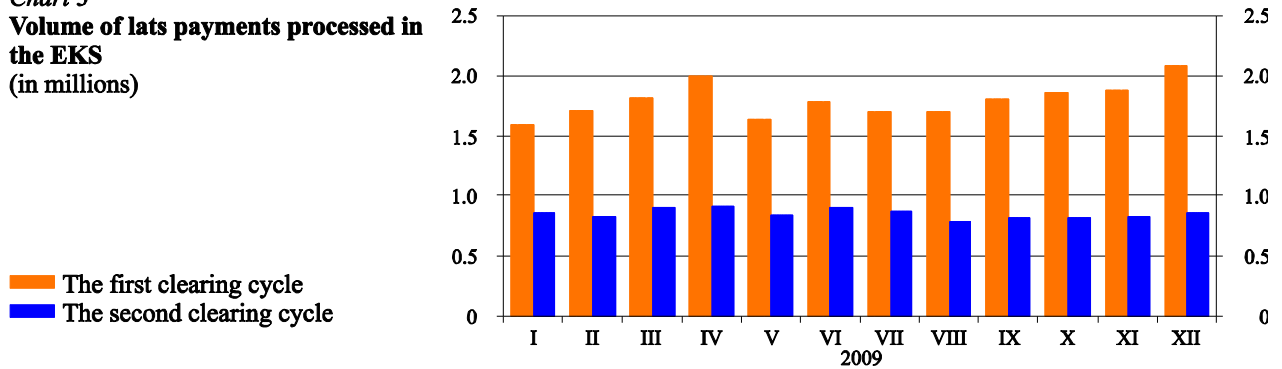
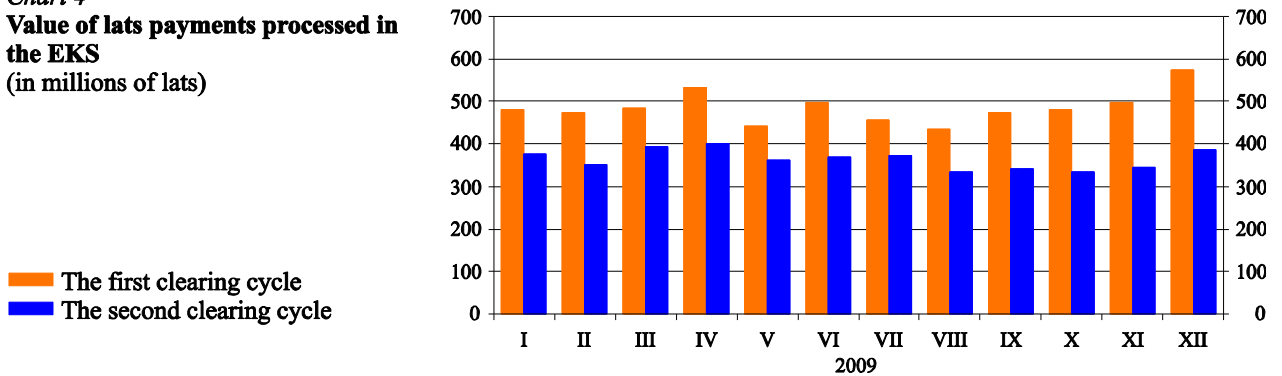


Chart 4
Value of lats payments processed in the EKS
 (in millions of lats)



The concentration ratios for the lats settlement effected via the EKS amounted to 79.6% and 79.1% in terms of volume and value respectively.

In 2009, 252.5 thousand payments in euro were processed via the EKS, totalling 1.3 billion euro (see Charts 5 and 6), i.e. of all customer credit transfers effected in euro, the above payments constituted 6.9% and 1.7% in terms of volume and value respectively.

Chart 5
Volume of euro payments processed in the EKS
 (in thousands)

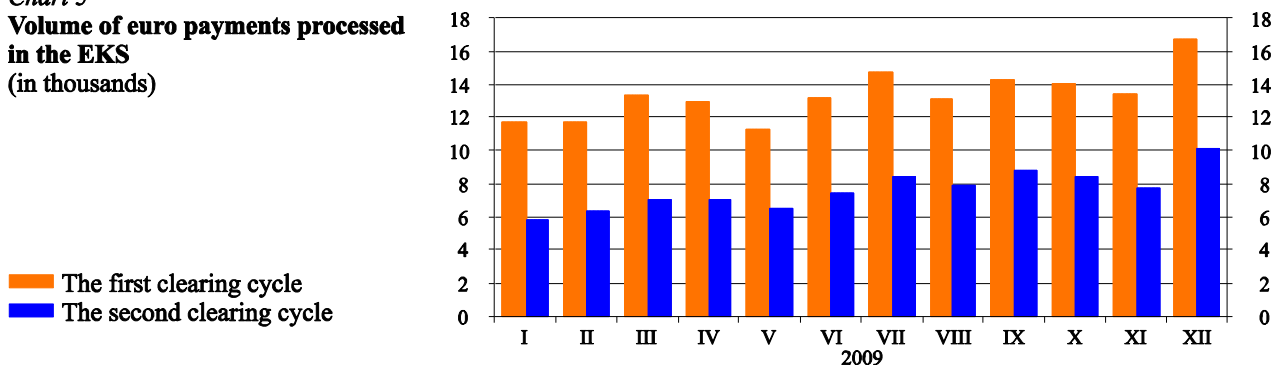
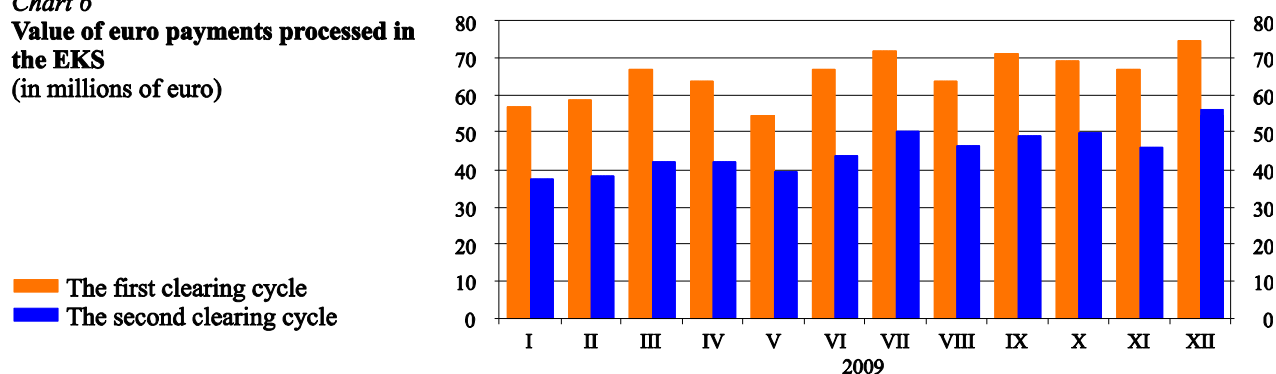


Chart 6
Value of euro payments processed in the EKS
 (in millions of euro)



The concentration ratios for the euro settlement executed via the EKS amounted to 71.3% and 68.2% in terms of volume and value respectively.

The overseers were promptly notified of the operational problems incurred by the EKS or its maintenance resources and the solution thereof.

The EKS availability ratio stood at 99.6%, i.e. such a share of the entire EKS net position or offsetting settlement was executed within the stipulated time frame. Overall, four operational disruptions or settlement delays were identified in the system in 2009. In the case of all four settlement delays, the delays in settlement exceeded 30 minutes of the clearing cycle time (the shortest delay lasted 44 minutes; the longest – 1 hour and 15 minutes). Such disruptions are monitored and prevented in accordance with the Bank of Latvia regulation.

The overseers participated in the incident analysis and discussed with the system's operators the measures to prevent such incidents in the future.

Risk assessment

Similar to SAMS, the following three indicators were analysed to identify the probability of systemic risk in the EKS: 1) the share in the respective segment of payments, 2) concentration ratio and 3) the netting effect ratio.

In 2009, of all customer credit transfers executed among the banks in Latvia in lats, 75.1% and 72.8% were handled by the EKS in terms of volume and value respectively (75.2% and 71.0% respectively in 2008).

In 2009, the volume concentration ratio of the payments made in the EKS in lats increased to 79.6% and the value concentration ratio amounted to 79.1% (78.1% and 77.4% respectively in 2008).

In 2009, the netting effect ratios of the first and second clearing cycles of payments executed via the EKS in lats (i.e. the system participants' average net debit positions as a percentage of the system's average gross transactions value) rose to 27.0% in the first clearing cycle and 20.1% in the second clearing cycle (21.9% and 19.1% respectively in 2008). In 2009, the value of net debit positions of payments executed by the EKS participants in lats was minor (0.7% on average) in comparison with the balance on the bank settlement accounts opened with the Bank of Latvia.

The netting effect ratios of the first and second clearing cycles of payments executed via the EKS in euro were 31.8% and 37.1% respectively in 2009. Since the net debit

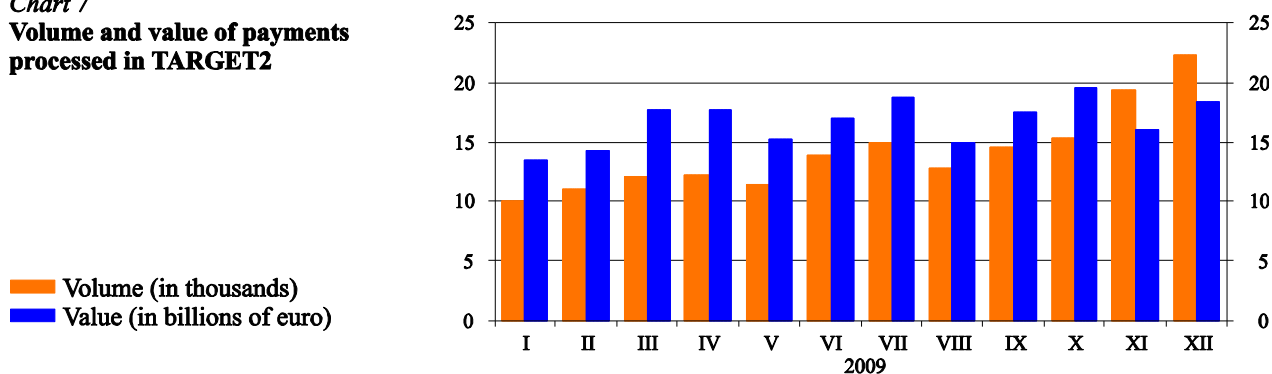
positions of payments executed by the EKS participants in euro were also minor (5.6% on average) in 2009 in comparison with the balance on the bank settlement accounts opened with the Bank of Latvia in euro, additional funds in euro were not needed in the EKS.

The probability of systemic risk is deemed to increase where the netting effect ratio declines. A netting effect ratio below 10% points to a significant probability of risk. Overall, it is concluded that the probability of systemic risk is minimal in the EKS, given the current value of settlement funds.

1.3 TARGET2-Latvija

In 2009, TARGET2 was one of the systemically important payment systems in the European Union. The Eurosystem performed the oversight of TARGET2 in 2009. A recurrent assessment of the system was made against the Core Principles due to its new release. The Eurosystem analysed the impact of changes in the system on the previous assessment and stated that the system's assessment had not deteriorated. The system has been assessed as fully compliant with all 10 Core Principles. According to statistical data, the total volume of payments executed via TARGET2-Latvija recorded an average monthly rise of 5.6%, totalling 169.9 thousand per annum, while the total value of payments posted an average monthly increase of 4.4%, reaching 200.5 billion euro per annum overall (see Chart 7).

Chart 7
Volume and value of payments processed in TARGET2



In 2009, TARGET2-Latvija, the Latvian component of Trans-European Automated Real-time Gross Settlement Express Transfer system TARGET2 continued its operation, with the Bank of Latvia and other banks of the European System of Central Banks (ESCB) ensuring its operation.

On 31 December 2009, TARGET2-Latvija comprised 24 participants (one participant less than on 31 December 2008). All 20 credit institutions registered in Latvia, two of the three branches of foreign credit institutions, the Bank of Latvia and the Treasury of the Republic of Latvia participated in the above system. The LCD ceased to participate in the system. *Svenska Handelsbanken AB* Latvia branch did not participate in the system.

Of interbank credit transfers made in euro, the volume of interbank payments processed in TARGET2- Latvija amounted to 12.6% (32.2 thousand) and their value stood at 35.4% (193.5 billion euro) in 2009.

The concentration ratios for euro payments executed via TARGET2-Latvija amounted to 60.4% and 92.1% in terms of volume and value respectively.

TARGET2 is a European payment system providing direct connectivity for banks (without the Bank of Latvia's intermediation), and the system's availability ratio is calculated for the whole system. In 2009, the availability ratio stood at 100% (99.98% in 2008).

In order to provide an efficient information dissemination channel to the users, information about the availability of TARGET was published by the ECB in the TARGET information system, *Reuters* and on the ECB website.

In May 2010, TARGET2 Annual Report will be published incorporating the analysis of TARGET2 operation. In 2009, ESCB-CESR Overseers Working Group analysed the system's availability ratio four times, determining the conformity of the provided service with the respective contracts. The Bank of Latvia also participated in the above working group.

In order to make additional analysis of TARGET2-Latvija development, in 2009, the overseers calculated the concentration and netting effect ratios, similar to those of the EKS and SAMS.

In 2009, the volume concentration ratio of TARGET2-Latvija amounted to 60.4% and the value concentration ratio was 92.1%. The value concentration ratio of TARGET2-Latvija exceeds the limit stipulated by the ECB (80%); this development, however, does not point to a probability of any significant domino effect in the system, as one of the system's five largest participants is the Bank of Latvia, which is not exposed to any liquidity and credit risks.

The netting effect ratio of TARGET2-Latvija is calculated as the annual average daily value of payments sent by banks to TARGET2-Latvija to the average daily balance on the bank euro accounts opened with TARGET2-Latvija. The estimates take into account the data submitted by all participants in the system, including the Bank of Latvia and Treasury of the Republic of Latvia. In 2009, funds held on accounts were on average used 41 times in payments executed via TARGET2-Latvija.

In contrast to the accounts held with the SAMS where minimum reserves are also held in addition to the funds needed for settling day-to-day payments, such a relatively high netting effect ratio of TARGET2-Latvija can be attributed to the fact that the participants deposit funds on the accounts held with TARGET2-Latvija only to execute day-to-day payments.

2. RETAIL PAYMENT SYSTEMS

In 2009, the Bank of Latvia proceeded with the oversight of three retail payment systems functioning in Latvia, compiling statistical data and analysing the development of the above systems. The performed data analysis suggested that it was not necessary to implement the measures of risk containment in the systems.

2.1 The FDL

In 2009, the FDL, the sole interbank card processing centre in Latvia, qualified as a systemically prominent retail payment system. Within the scope of the oversight, the overseers requested the FDL to submit semi-annual data on the processed card transactions. In 2009, the market share of transactions conducted at terminals with bank cards remained broadly unchanged.

The overseers requested the FDL to submit data on the volume and value of processed card transactions, their breakdown by currency, card issuers and card acquirers. The aggregated data were used for monitoring the FDL development with respect to card payments as well as for comparing the above data with those on payment card transactions as submitted by banks. The data submitted by the FDL were not disseminated subject to the principle of confidentiality.

In 2009, the FDL ensured payment card authorisation and calculated the card transaction net positions in lats. The FDL was the sole interbank card transaction processing centre carrying out domestic settlement, hence it maintained the status of a systemically prominent system. As regards international transactions, some Latvian banks had concluded direct agreements with international card scheme centres or they could also execute card payments through parent companies. The overseers have analysed the FDL market share in the total Latvian banks' transactions effected with bank cards at terminals; however, the above data qualify as restricted information (hereinafter, r.i.) and are not disseminated. In 2009, the market share of FDL remained broadly unchanged year-on-year.

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

The FDL also enabled the electronic money institutions and issuers of single-purpose cards to effect the settlement.

2.2 SJSC *Latvijas Pasts*

The overseers compiled data on the system and its statistical data. The SJSC *Latvijas Pasts* (*Latvijas Pasts*) processed 6.5% (14.1 million transactions) of all customer payments (the fourth highest result in Latvia's payment system), however, the value of such transactions amounted to 0.3% only (0.8 billion lats – the 20th result in Latvia's payment system). The volume of *Latvijas Pasts* customer payments dropped by 26.5%, and the value shrank by 12.3% year-on-year.

In 2009, within the scope of the oversight, the overseers requested *Latvijas Pasts* to submit data on payments processed by it in the first and second half of the year. Payment statistics was published on the Bank of Latvia website. The incorporation of *Latvijas Pasts* statistical data into the report on Latvia's payment statistics on 10 November 2009 was agreed with *Latvijas Pasts* in writing.

In 2009, *Latvijas Pasts* mainly offered credit transfer services to its customers and only 0.02% of the total volume of payments made by *Latvijas Pasts* customers accounted for direct debit payments. Year-on-year, the total volume of *Latvijas Pasts* customer payments declined by 26.5% and value shrank by 12.3%. The average value per payment executed in 2009 stood at 59.41 lats (49.80 lats in 2008).

Latvijas Pasts processed 6.5% (14.1 million transactions) of all customer payments; however, their value only amounted to 0.3% (0.8 billion lats).

At the end of 2009, the accounts of the Postal Payment System (PNS) customers were opened in lats only and their volume was 4.8% (234.1 thousand) of all settlement accounts, i.e. those opened by the customers of the Bank of Latvia, Latvian banks and

Latvijas Pasts. The number of accounts opened with *Latvijas Pasts* increased by 23.3% since the end of 2008.

In 2009, in addition to cashless payments, 16.5% of the entire cash deposits and cash withdrawals (14.0 million transactions – the second highest result in the payment system of Latvia) made in the payment system of Latvia were executed via *Latvijas Pasts* in terms of volume and 4.7% (799.9 million lats – the seventh highest result in the payment system of Latvia) – in terms of value.

2.3 JSC *Itella Information*

As in the previous periods, the JSC *Itella Information* was the only company providing infrastructure for interbank direct debit payments in Latvia also in 2009.

In 2009, within the scope of the oversight, the overseers requested the JSC *Itella Information* to submit data on the volume and value of direct debit payments processed in the first and second half of the year as well as information on the number of agreements concluded with banks, companies and customers. The data submitted by the JSC *Itella Information* were not disseminated subject to the principle of confidentiality. In 2009, the market share of the JSC *Itella Information* remained broadly unchanged.

On 22 and 26 January 2009, the overseers organised bilateral meetings of two banks and the JSC *Itella Information* to discuss the models of levying charges for the direct debit payment services in domestic practice. Results were reported to the Working Group on Payment System Policy of the ECB.

2.4 Risk-based assessment of Latvia's payment systems

In 2009, the Bank of Latvia conducted an assessment of Latvia's payment systems in line with the first assignment of the ECB assessment methodology, applying the data for 2008. 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, in the future oversight has to be mainly directed towards JSC *Itella Information*, agreeing on the performance of the system's assessment against the Core Principles and discussing the role of the above system in servicing SEPA direct debit payments. As regards the FDL, the issue of implementing the oversight recommendations has to be brought forward.

In 2009, the ECB commenced drafting a risk-based assessment methodology for payment systems in order to set priorities for the performance of payment system oversight. To develop structured methodology and ensure its gradual implementation in the coming years, the assessment of payment systems shall be performed in three phases. Payment systems are mutually compared during the first phase by determining their significance and oversight status. In the second phase, each payment system has to be assessed against the risk categories, taking into account the impact of a specific risk, its probability and the risk mitigation measures implemented. Hence a risk assessment is obtained for the respective payment system in order to set an oversight priority with respect to the components of a specific payment system and their risks. A consolidated assessment shall be made during the third phase, summarising those oversight priorities which have been

defined in the first and second phases. The ECB is finalising the methodology of the second and third phases.

In 2009, the Bank of Latvia conducted assessment of Latvia's payment systems in line with the first phase of the ECB's assessment methodology, applying the data for 2008. In view of the fact that Latvia's payment system and its participants are smaller by payment and asset value than the payment systems and market participants of the European Union (EU), the methodology drafted by the ECB has in some cases been modified. All payment systems of Latvia were assessed: the payment systems maintained by the Bank of Latvia (the SAMS, EKS and TARGET2-Latvija) as well as the local lats settlement system maintained by the limited liability company First Data Latvia, the settlement system maintained by the JSC *Itella Information* and Postal settlement system (PNS) maintained by the SJSC *Latvijas Pasts*. Detailed findings are presented in the Appendix.

3. PAYMENT INSTRUMENTS

Pursuant to the "Bank of Latvia's Payment System Policy", data on payment instruments used in Latvia in 2009 were compiled and analysed. In 2009, the development of payment instruments was steady and hence it was not necessary to implement the risk containment measures related to the payment instrument use.

The overseers continued to compile statistical data on payment instruments on the basis of the Council of the Bank of Latvia "Regulation for Compiling 'Credit Institution Payment Statistics Report' " (Regulation for Payment Statistics) approved on 15 March 2007. As of 2009, Latvia's payment statistics has not been published in Issue No. 4 of the Bank of Latvia publication *Monetārais Apskats. Monetary Review*. From now on the overseers will present a brief analytical review of the situation regarding the payment systems on the website of the Bank of Latvia.

Analysing the data submitted by banks, FDL and issuers of single-purpose retailer cards, the overseers monitored the development of payment cards and their infrastructure.

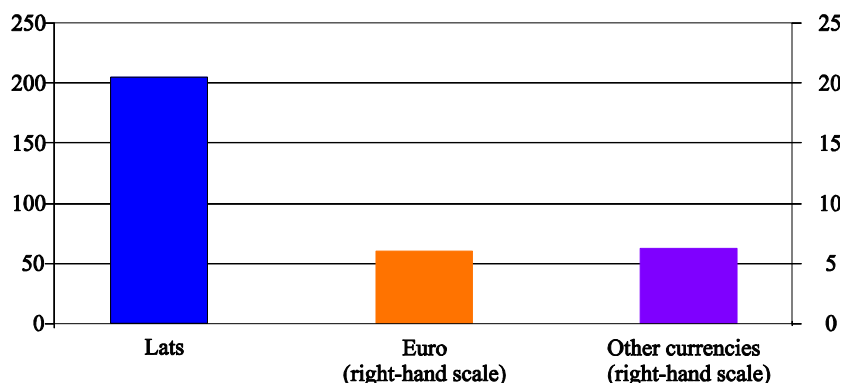
3.1 Development of payment instruments

Statistical data on Latvia's payments were surveyed twice a year. Latvia's payment statistics is compiled on the basis of the data from the "Credit Institution Payment Statistics Report", submitted until 25 July and 25 January by all credit institutions registered in Latvia, also the Bank of Latvia and *Latvijas Pasts*, and statistical data submitted by the issuers of single-purpose retailer cards.

In 2009, total volume and value of customer payment instruments used in Latvia diminished by 2.3% (down to 217.2 million) and 33.4% (to 244.3 billion lats) respectively.

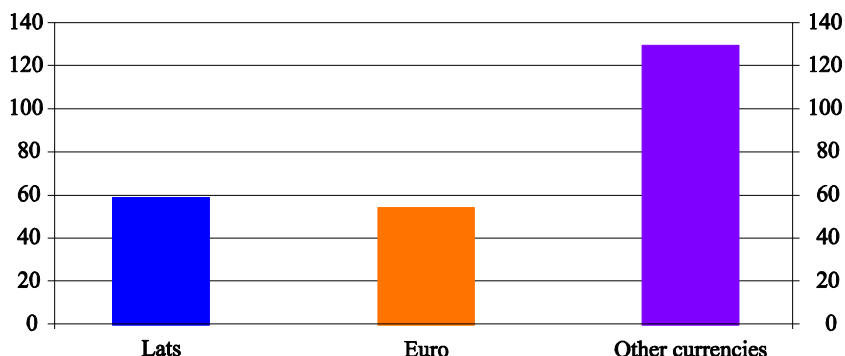
Of all customer payment instruments, the volume of payments executed in lats amounted to 94.4%, that in euro was 2.7% and that in other currencies stood at 2.9% (see Chart 8). In terms of value, the majority of payments (53.2%) were made in other currencies, 24.4% were executed in lats and 22.4% in euro (see Chart 9).

Chart 8
Volume of payments by currency
 (2009; in millions)



The concentration ratio in the total volume of customer payments made in lats amounted to 85.4%, while in that of payments made in euro it was 75.1% and in other currencies – 73.4%. The concentration ratio in the total value of customer payments executed in lats comprised 85.6%, while in that of customer payments made in euro and in other currencies it amounted to 62.8% and 72.7% respectively.

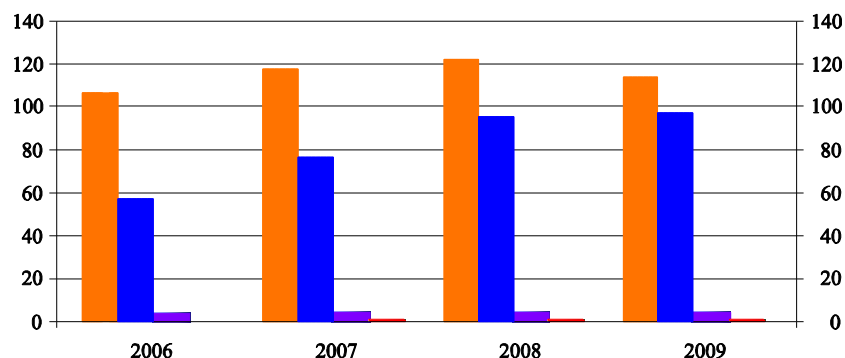
Chart 9
Value of payments by currency
 (2009; in billions of lats)



Assessing the use of individual payment instruments, customer credit transfers and card payments (52.6% and 45.0% respectively) were used most frequently of all customer payment instruments in Latvia in terms of volume (see Chart 10). In terms of value, customer credit transfers and card payments amounted to 99.3% and 0.6% respectively. Year-on-year, the volume and value of customer credit transfers decreased by 6.2% (to 114.3 million) and 33.4% (to 242.7 billion lats) respectively. The above decline was mainly attributable to a drop in customer credit transfers initiated via the Internet in other currencies (48.2%). The volume of card payments recorded a year-on-year increase of 2.8% (to 97.8 million), whereas their value fell by 20.2% (to 1.4 billion lats).

Chart 10
Customer payment instruments in Latvia
 (in millions of payments)

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



Payments executed by credit institution customers accounted for the largest share in total customer payments in terms of both volume and value (88.3% (191.8 million) and

96.4% (235.5 billion lats) respectively). The share of payments made by *Latvijas Pasts* customers stood at 6.5% (14.1 million) and 0.3% (0.8 billion lats) in terms of volume and value respectively. Payments executed by the Bank of Latvia customers accounted for the rest (most of them were payments effected by the Treasury of the Republic of Latvia).

Of credit institution customer payments, card payments accounted for the majority (51.0%; 97.8 million) in 2009. Of the volume of credit institution customer payments, credit transfers amounted to 46.3% (88.9 million), direct debits stood at 2.3% (4.4 million) and e-money payments were 0.4% (0.8 million). 21.2 thousand cheque payments were also executed.

The concentration ratios for customer credit transfers made in Latvia amounted to 85.0% and 60.1% in terms of volume and value respectively.

At the end of 2009, credit institutions had issued 2.5 million payment cards (almost the same volume as at the end of 2008). At the end of 2009, payment cards were offered by 23 banks in Latvia. The majority of cards (74.0%) were issued by three banks. As regards the total volume and total value of card payments executed in Latvia, the share of the three banks stood at 83.2% and 76.4% respectively. At the end of 2009, 1 320 ATMs were installed in Latvia and 58.4% of them were serviced by three banks. At the end of 2009, 119 ATMs with cash deposit function were installed in Latvia. Three banks serviced 80.4% of the entire 23.8 thousand POS terminals.

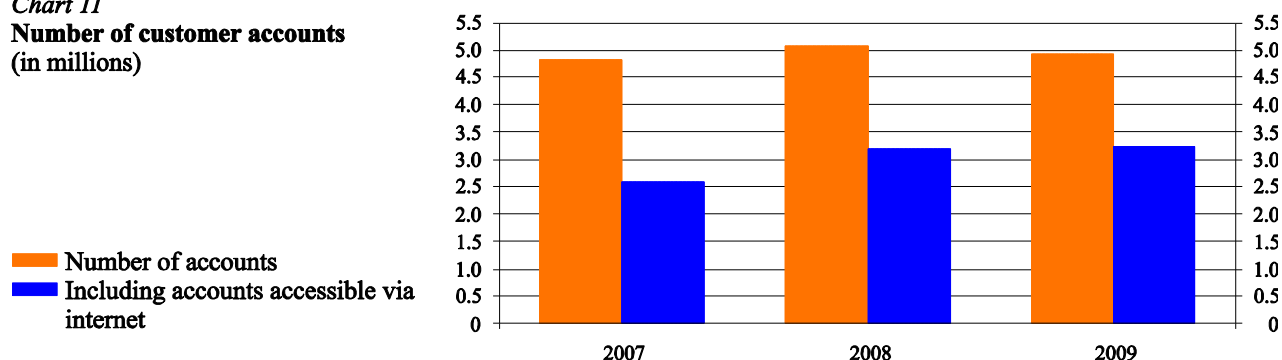
In 2009, overseers compiled data on card transactions at terminals. The data on card payments and other transactions at POS terminals and ATMs were reported under this item, recording separately the transactions at terminals located in the country with cards issued in the country, transactions at terminals located in the country with cards issued outside the country and transactions at terminals located outside the country with cards issued in the country.

In 2009, 149.1 million transactions were executed at terminals (a year-on-year drop of 5.6%) and their total value reached 5.1 billion lats (20.6% lower year-on-year). Transactions at terminals located in the country with cards issued in the country amounted to 92.2% and 84.9% of the total volume and value respectively, transactions at terminals located in the country with cards issued outside the country stood at 2.6% and 3.8% respectively and transactions at terminals located outside the country with cards issued in the country were 5.2% and 11.3% respectively.

At the end of 2009, all cards issued by banks were co-branded with international card organisations (VISA, *MasterCard*, *American Express* etc.). International cards were issued in accordance with the regulations of the respective card scheme. Card schemes ensured bank compliance with the respective scheme regulations.

At the end of 2009, 4.9 million customer accounts were opened with credit institutions, the Bank of Latvia and *Latvijas Pasts*, 65.8% (3.2 million) of which were accounts accessible via internet (see Chart 11). Three banks serviced 62.8% of total number of customer settlement accounts opened in Latvia.

Chart 11
Number of customer accounts
 (in millions)



3.2 E-money

Pursuant to Clause 1 of Section 11.¹ of the Law "On Credit Institutions", 18 electronic money (e-money) institutions had informed the Bank of Latvia by the end of 2009 on commencing the planned operation, including five new e-money institutions established in 2009: BALTPAY Ltd, CG PAY Ltd, EURO MEDIA Ltd, Money Service Group Ltd and PAY ON NET Ltd. *Mikromaksājumi* Ltd terminated its operation as of 1 January 2009.

The Bank of Latvia does not perform the following functions: grant authorisations to e-money institutions for commencing their operation, exercise their supervision and control conformity of their operation with the regulatory provisions. Performing an oversight of the national payment systems, the Bank of Latvia compiles the payment statistics of the above e-money institutions.

Following the receipt of each application, overseers notified the respective e-money institution of the regulatory provisions that were applicable to its operation and fell within the Bank of Latvia's competency, as well as individually advised e-money institutions on some unclear issues.

In 2009, 782.3 thousand e-money payments in the value of 6.6 million lats were executed.

3.3 Customer counselling

In 2009, overseers together with other Bank of Latvia's experts advised natural and legal persons and participated in drafting the Bank's replies on various issues pertaining to payments.

The Bank of Latvia took part in the series of analytical shows *Naudas zīmes* produced by the national TV channel on the development of cashless transactions in Latvia and highlighted their advantages.

Overseers held a meeting with the representatives of the State Regional Development Agency (SRDA) responsible for the maintenance of the website <http://www.latvija.lv>. The representatives of SRDA showed interest in the issues regarding the development of e-SEPA services in Latvia, inter alia, drafting the regulatory framework for e-services in Europe and possibilities of launching SEPA e-invoicing services and their coordination in Latvia.

The Bank of Latvia was consulted on the issues regarding the Regulation (EC) No. 924/2009 of the European Parliament and of the Council on cross-border payments in

the Community and repealing Regulation (EC) No. 2560/2001 of the European Parliament and of the Council on cross-border payments in euro. The new Regulation is a directly applicable regulatory document of the EU.

Overseers participated in the international seminar *Examination of the payment cards* organised by the State Forensic Science Bureau, and gave a presentation on the role of the Bank of Latvia overseers in card payments.

A customer survey conducted by the Bank of Latvia in 2009 indicated that customer satisfaction with the overseers' competence and responsiveness was high (assessment – 4.53 and 4.65).

3.4 The ECB's Study on the Costs of Retail Payment Instruments

In 2009, the Bank of Latvia along with other national central banks and the ECB launched a project to enhance the general awareness of the cost efficiency of different payment instruments *The social costs of retail payment instruments: a European perspective*. The overall objectives of the survey are to estimate and analyse the social costs of different payment instruments, incurred by the general public, in order to reply to the following questions:

- What are the actual cost elements associated with the different payment instruments and incurred along the payment chain by the major stakeholders?
- To what extent do the costs differ across payment instruments and stakeholders?
- What are the differences across euro area countries, and what are the possible explanations for these differences in, for example, logistical efficiency, degree of electrification of payment instruments and scale economy?
- How do different levels of technology and varied setups affect the cost of the same type of payment instrument?

The study intends to establish a consistent and comprehensive framework allowing for a valid comparison of the costs of different payment instruments across several European countries. The project will finalise in the third quarter of 2011.

At the end of the year, the ECB convened a working meeting of the central bank experts directly involved in data compilation and analysis in order to provide a detailed explanation of the methodology prior to conducting the survey. Participation in the above meeting was deemed to be a consent to the participation in the above study. Austria, Belgium, the Czech Republic, Denmark, France, Greece, Estonia, Ireland, Italy, Malta, the Netherlands, Portugal, Rumania, Slovenia, Finland, Spain, Hungary, Sweden, Germany and Latvia will take part in the study.

In line with the common methodology, the survey will present data collected on retail payment instruments (such as cash, payments with credit and debit cards, credit transfers and direct debits) and costs related to the above payment instruments and incurred by each participant executing a payment. Overall, four types of questionnaires will be filled in and data will be collected from: 1) banks and providers of interbank infrastructure; 2) retailers and corporations; 3) professional money transporter (cash collection) companies; 4) the national central banks (the Bank of Latvia).

In the fourth quarter of 2009, the Bank of Latvia developed a strategy for conducting the above study. At the end of 2009, sample sets of respondent (bank and respondent) companies were identified. The above respondents were notified of the study, and the respective project phases and uncertainties were discussed.

4. COOPERATION WITH OTHER INSTITUTIONS

4.1 The Ministry of Finance of the Republic of Latvia

In 2009, the Bank of Latvia was consulted from the payment system oversight perspective by the Ministry of Finance of the Republic of Latvia on drafting the Law "On Payment Services". Drafting of the above Law started at the beginning of 2009, in order to incorporate into the Republic of Latvia laws the legislative provisions arising from Directive 2007/64/EC of the European Parliament and of the Council of 13 November 2007 on payment services in the internal market amending Directives 97/7/EC, 2002/65/EC, 2005/60/EC and 2006/48/EC and repealing Directive 97/5/EC.

4.2 The ECB

In 2009, overseers continued participation in the ECB working groups dealing with a wide range of issues related to the payment system oversight. At the working group meetings held by the Oversight Working Group (WGO) and Payment Systems Policy Working Group (PSPWG) subordinated to the ECB Payment and Settlement Systems Committee (PSSC), including the Sub-group developing a long-term strategy for IBAN, the overseers and representatives of other central banks of the EU Member States discussed the issues pertaining to the oversight of payment instruments and infrastructures and addressed the SEPA project-related issues.

SEPA Project in Latvia

In 2009, the Bank of Latvia engaged in further activities of SEPA Project by steering the National SEPA Working Group and participating in the SEPA Working Group of the Payment Committee established by the Association of Latvian Commercial Banks (ALCB), and launching the SEPA Project at the Bank of Latvia.

In Latvia, the major events within the SEPA Project were as follows: 1) the national SEPA Latvija website was launched on 2 July 2009; 2) on 14 December 2009, the Money and Payment Systems Working Group (MPSWG) of the Republic of Latvia Euro Project Steering Committee approved the draft Version 1.0 of Latvia's National SEPA Plan. Overseers also took part in the above activities.

Latvia's National SEPA Working Group (NSWG) responsible for the coordination of the Project convened three meetings in 2009, and overseers also participated in all SEPA working group meetings of ALCB.

When drafting Latvia's National SEPA Plan, the Bank of Latvia held bilateral meetings with all members of the NSWG in order to make amendments to the draft Version 1.0 of Latvia's National SEPA Plan. Consultations on the draft version of the above Plan and proposals for high level SEPA implementation measures incorporated in Annex 1 "Action Plan for Introduction of the Single European Currency in Latvia" to Latvia's National Euro Changeover Plan were held with the NSWG members at their companies and institutions until autumn 2009. On 14 December 2009, the Money and Payment Systems Working Group (MPSWG) approved Version 1.0 of Latvia's National SEPA Plan and high level SEPA implementation measures. The Plan is available on the national SEPA Latvia website.

The Bank of Latvia proceeded with the development of the National SEPA Latvia website. The above Project was launched in January with the procurement procedure for developing and implementing the National SEPA Latvia website, and was complete in June 2009. On 2 July 2009, the National SEPA Latvia website was launched and a general workshop on SEPA was organised for journalists. In June, public statements were agreed with all NSWG members.

The overseers coordinated the participation of the following Latvia's public administration institutions in the surveys conducted by the European Commission for public administration institutions: the Bank of Latvia, Ministry of Finance of the Republic of Latvia, Treasury of the Republic of Latvia and State Social Insurance Agency. In the respective replies, the start date for executing SEPA credit transfers by public institutions was set (12 November 2010), and a commitment to finalise the implementation of the new SEPA standard (ISO 20022 XML) as of the euro changeover date was made.

The overseers coordinated the consultation on amendments made to the SEPA Scheme Rulebooks launched by the European Payments Council (EPC), including the adherence to the schemes by payment institutions and Treasuries providing payment services as well as the recently approved ISO 11649 Creditor Reference Standard. The overseers also coordinated the public consultation opened by the European Commission on the possible end-date for SEPA migration.

In 2009, overseers were involved in a number of undertakings in order to provide information to the stakeholders in the SEPA Project. They made presentations at the professional associations, published informational articles on the website, delivered reports at seminars and participated in the analytical TV show *Naudas zīmes* produced by the national TV channel.

The Bank of Latvia developed the SEPA Plan and the Board of the Bank of Latvia approved the above Plan by the Resolution No. 929/3 of 23 July 2009. On 14 August 2009, the Bank of Latvia's SEPA Plan and self-assessment of the EKS SEPA, electronic clearing system, were published on the Bank's website. The Bank of Latvia's SEPA Plan is aimed at describing the use of SEPA core products at the Bank of Latvia, also offering SEPA credit transfers to the Bank of Latvia customers. According to the Plan, the Bank of Latvia published a self-assessment of its operations as the user and provider of those SEPA products which have to be provided as of 12 November 2010. The conducted self-assessments confirm the Bank of Latvia's compliance with the SEPA requirements.

To monitor the progress of SEPA implementation, the overseers proceeded with the compilation of SEPA indicators confirming a smooth migration to the SEPA credit transfers and stable advance in the area of SEPA cards. In the second half of 2009, the SEPA credit transfers stood at 55.1% (1 035.7 thousand payments) of the overall credit transfers executed in euro. At the end of 2009, the four main indicators of SEPA Cards Framework in Latvia confirmed that first, all ATMs of Latvian banks have migrated to the EMV (Europay-Mastercard-Visa) standard in the card-to-terminal domain; second, 88.7% (21.1 thousand) of POS terminals have migrated to EMV. Large trading companies or chain stores currently using payment cards with magnetic stripe rather than the EMV smart cards account for the rest. The third and the fourth indicators provide the breakdown of EMV cards by debit and credit cards which are issued by Latvian banks. At the end of 2009, 97.4% (1 942.4 thousand) debit cards and 98.7% (424.7 thousand) credit cards were consistent with the EMV standard.

4.3 The European Commission (EC)

On 30 March and 20 October 2009, the European Commission organised the Second and Third Forum of SEPA National Working Groups, where the overseers also represented Latvia. The SEPA core product migration, continued legal validity of direct debit mandates, SEPA communication and end-date (dates) for SEPA migration were the key issues discussed. Each time the representatives of Latvia along with other participants presented a progress report.

5. INFORMATION TO THE PUBLIC

Information on the development of payment instruments and their infrastructure and the Bank of Latvia's achievements in the payment system oversight were published in the Bank of Latvia Annual Report and Financial Stability Report as well as on the Bank's website.

In 2009, mass media showed interest in payment instruments by submitting questions on the Bank of Latvia's website or to the Press Secretary of the Bank. Interest on electronic money transactions and implementation of SEPA Credit Transfer Scheme in Europe and Latvia was expressed most highly.

APPENDIX

THE RISK-BASED ASSESSMENT OF LATVIA'S PAYMENT SYSTEMS

In 2009, the ECB started developing a risk-based assessment methodology for payment systems in order to set priorities for the performance of payment system oversight. To devise a structured methodology and ensure its gradual implementation in the coming years, the assessment of payment systems has to be performed in three phases. During the first phase, payment systems are mutually compared by determining their significance and oversight status. As a result of the above comparison of payment systems, an assessment is obtained in order to set further oversight priorities for different payment systems. In the second phase, each payment system has to be assessed against the categories of risk, taking into account the impact of a specific risk, its probability and the risk mitigation measures implemented. Hence a risk assessment is obtained for the respective payment system in order to set an oversight priority for the components of a particular payment system and their risks. A consolidated assessment shall be made during the third phase, summarising those oversight priorities which have been defined in the first and second phases. The ECB is finalising the methodology of the second and third phases.

In 2009, the Bank of Latvia conducted an assessment of Latvia's payment systems in line with the first phase of the ECB assessment methodology, based on the data for 2008. In view of the fact that Latvia's payment system and its participants are smaller by payment and asset value than the payment systems and market participants of the European Union (EU), in some cases the methodology drafted by the ECB has been modified. All payment systems of Latvia were assessed: the payment systems maintained by the Bank of Latvia (the SAMS, EKS and TARGET2-Latvija) as well as the local lats settlement system (FDL) maintained by the limited liability company First Data Latvia, the settlement system (*Itella*) maintained by JSC *Itella Information*, and Postal settlement system (PNS) maintained by *Latvijas Pasts*.

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 significance and oversight status. High-step matrix for each payment system includes assessment of the following three aspects.

<p>1. Payment system's importance</p>	<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 critical participants, – interoperability of a system, – interdependence of payment systems, – use in monetary policy operations, – impact on the national economy, – visibility of a system.
<p>2. Oversight status</p>	<p>The current level of 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 latest time frame for the payment system oversight, – deadline for implementing recommendations, – type of oversight, – cooperative review of the latest oversight assessment.
<p>3. Oversight priority</p>	<p>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 importance and oversight status in accordance with a specific table.</p>

1. Payment system's importance

1.1 The value of executed payments

The payment systems are assessed in accordance with the total value of average daily payments executed in 2008 (0 – the lowest assessment; 10 – the highest assessment). 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	<i>Itella</i>	PNS	TARGET2-Latvija
A daily average of the executed payment value (in millions of lats)	727.62	56.51	r.i	r.i.	3.82	421.29 ¹
Points	10	4	3	1	1	10

1.2 The share of critical participants

The payment systems are assessed against the number of critical participants in the system (0 – none of such participants participate in the system; 10 – $\geq 90\%$ of all critical participants participate therein).

The following participants of payment systems have been determined to be critical according to the methodology developed by the ECB:

- 20 major monetary financial institutions of Europe – by their asset value (for large-value payment systems);
- 20 major monetary financial institutions of Europe – by the number of customer accounts (for retail payment systems);
- financial institutions operating in more than three EU Member States;
- and/or financial institutions compliant with a combination of the above provisions.

In view of the fact that none of the participants in Latvia's payment system meets the criteria set by the ECB, the Bank of Latvia applied other criteria to the assessment of the respective institution's role in the above payment system.

¹ As regards TARGET2-Latvija, data on the daily average value of payments for November and December 2008 were used as TARGET2-Latvija turnover expanded substantially since November, with some participants in TARGET2-Latvija choosing de-centralised liquidity management.

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

The 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 2008, five banks were important participants in Latvia's payment system.

Sub-matrix 2 "The share of critical participants"

Payment system	SAMS	EKS	FDL	<i>Itella</i>	PNS	TARGET2-Latvija
The share of important participants (%)	100	100	100	100	0	100
Points	10	10	10	10	0	10

1.3 Interoperability of a system

The payment systems are assessed depending on their interoperability in the case of a disruption in the respective payment system, i. e. whether alternatives are available for the execution of the failed payments with other payment instruments or within other systems (0 – several alternatives; 10 – no alternative).

Other payment systems, correspondent banking arrangements, cash payments as well as other types of payment instruments are deemed to be the potential alternatives. Each payment system of Latvia has been assessed depending on the system's market share in the respective payment types (the larger the system's market share, the less alternatives for replacing such payments) and the available alternatives for payment execution (the less alternatives are available for replacing the failed payments with other payment instruments, the smaller the number of alternatives).

The SAMS

The SAMS, the Bank of Latvia's real time interbank settlement system, ensures settlement of the Bank of Latvia's monetary policy operations, interbank payments, final settlement of other payment and securities settlement systems and large-value or urgent customer credit transfers. Of all interbank credit transfers executed in lats in Latvia in 2008, the above system's share in interbank payments amounted to 87.3% and 88.8% in terms of volume and value respectively. The minor share of the SAMS in customer payments notwithstanding (0.1% and 17.2% in terms of volume and value respectively of all interbank customer credit transfers executed in lats in Latvia), urgent or large-value customer payments were executed via the SAMS which was the only system offering real-time settlement for payments made in lats. The system was not interoperable in the settlement of the Bank of Latvia's monetary policy operations and final settlement of other payment and securities settlement systems. The SAMS was almost not interoperable in the execution of payments on interbank money market, and

there was also no alternative to the customer payments executed in the SAMS. Thus the interoperability of SAMS was rated at 10.

The EKS

The EKS, the Bank of Latvia's retail payment system, enables processing of customer credit transfers executed in two currencies – in lats and euro. The EKS is mainly used for payments executed in lats. In 2008, the EKS processed 75.2% of the entire interbank customer credit transfers executed in lats in Latvia. The rest were the payments executed by four banks mutually subject to an agreement. In 2008, the EKS processed 5.6% of all customer credit transfers effected in euro in Latvia. In the case of the EKS unavailability, a limited volume of payments in lats would be processed in the SAMS; however, the capacity of SAMS would not allow processing of the entire (133.0 thousand) average daily payments executed in lats via the EKS. Hence the possibility to replace the payment processing in the EKS with that effected in the SAMS was minor. The second possible alternative would be the lats correspondent banking network. In 2007, the survey of correspondent banking arrangement confirmed that 17 banks out of 21 banks participating in the survey had established mutual correspondent banking arrangements. Thus the correspondent banking network did not ensure a similar possibility to handle all EKS payments and was not considered to be an alternative. The payments in euro could be sent via TARGET2 or the euro correspondent banking network in full amount. Hence the EKS could be fairly interoperable with respect to the payments made in euro; however, in view of the fact that the percentage of euro payments in the EKS was moderate (0.7% of all payments executed in the EKS), it did not have any notable effect on the EKS assessment. The interoperability of EKS was rated at 7.

The FDL

The system ensures processing of payments made with retailer cards and calculates net positions for card transactions in lats. Card payments are executed at POS termināls, ATMs and via Internet. In 2008, the market share of FDL in the entire card payments accounted for r.i.% in terms of volume in Latvia. Some banks ensured 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 the FDL system fail, customers would also be unable to withdraw cash from ATMs. Hence the assessment is based on an assumption that cash transactions may replace 50% of all payments made with cards at POS terminals. Credit transfers via Internet banking were a good alternative to card payments for online purchases. In 2008, however, card payments for online purchases only amounted to 4% of all card payments executed with cards issued in Latvia. The interoperability of FDL was rated at 3.

Itella

Itella is the sole system processing interbank direct debit payments. Since the majority of direct debit payments are executed in Latvia as intrabank transfers (both the payer and payee are the customers of the same bank), in 2008, the market share of *Itella* system was r.i.% of the entire direct debit payments in terms of payment volume. *Itella* is not interoperable in interbank direct debit payments. The interoperability of *Itella* was rated at 6.

Postal settlement system (PNS)

The system processes a large volume of retail customer payments and has a unique country-wide network coverage. In 2008, PNS only processed 8.6% of the overall customer payments in Latvia's payment system. Payments at credit institutions, cash or card payments could be used as an alternative to payments via PNS; however, considering that PNS was used by individuals who normally did not use banking services as well as given the unavailability of these services in some rural areas, the system's interoperability was rated at 1.

TARGET2-Latvija

The system processes large-value interbank and customer payments in euro as well as settles final positions of EKS payments in euro. Of all interbank credit transfers executed in euro in Latvia in 2008, the TARGET2-Latvija share amounted to 8.6% and 10.9% in terms of volume and value respectively. As regards customer payments, the volume and value of the above payments amounted to 3.0% and 5.5% respectively of the entire interbank customer credit transfers executed in euro in Latvia. The payments executed by Latvian banks via the EKS, the euro correspondent banking network and other euro payment systems of the EU accounted for the rest. The system was fairly interoperable with respect to interbank and customer payments. The system was not interoperable in ensuring the final settlement of euro payments executed via the EKS (the share of EKS in the customer credit transfers made in euro in Latvia amounted to a mere 5.6% in 2008). The interoperability of TARGET2-Latvija was rated at 1.

Sub-matrix 3 "The system's interoperability"

Payment system	SAMS	EKS	FDL	<i>Itella</i>	PNS	TARGET2-Latvija
Points	10	7	3	6	1	1

1.4 Payment system interdependence

The payment systems are assessed depending on their impact on other systems' ability to effect settlement (0 – are not interdependent; 10 – more than five interdependencies) and estimating the number of systems whose final settlement is provided by the respective payment system.

In 2008, the SAMS ensured the final settlement of four systems (the EKS, FDL, the LCD securities settlement system DENOS, and *Itella*). TARGET2-Latvija provided the EKS settlement. In 2008, the rest of the payment systems did not provide such settlement for other systems.

Sub-matrix 4 "Payment system interdependence"

Payment system	SAMS	EKS	FDL	<i>Itella</i>	PNS	TARGET2-Latvija
The number of systems settling via the respective system	4	0	0	0	0	1
Points	8	0	0	0	0	2

1.5 The use of systems in monetary policy operations

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

In 2008, only the SAMS was used for settling cash leg of the Bank of Latvia monetary policy operations.

Sub-matrix 5 "System's use in the monetary policy operations"

Payment system	SAMS	EKS	FDL	<i>Itella</i>	PNS	TARGET2-Latvija
Points	10	0	0	0	0	0

1.6 Economic effects

The payment systems are assessed depending on the extent to which they support and affect a wide scope of economic activities, such as the goods and services sectors, individuals and corporations (0 – minor impact; 10 – wide-scope impact).

The Bank of Latvia applied the following criterion: the share of customer payment volume processed via the systems in the entire 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 "Economic effects"

Payment system	SAMS	EKS	FDL	<i>Itella</i>	PNS	TARGET2-Latvija
The share of customer payment volume (in 2008; %)	0.1	15.1	i.p.i.	i.p.i.	8.6	0.1
Points	0	2	5	0	1	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 (0 – unavailability is visible to some individuals; 10 – visible to almost everyone).

The system's visibility was assessed, depending on the volume of customer payments processed therein, as in the case of unavailability of the respective system customers would not be able to execute payment and settle for goods and services and thus, in most cases, the above would be immediately visible to customers.

Sub-matrix 3 "The system's visibility"

Payment system	SAMS	EKS	FDL	<i>Itella</i>	PNS	TARGET2-Latvija
Volume of customer payments (in 2008; in millions)	0.1	33.5	i.p.i.	i.p.i.	19.2	0.1
Points	0	3	10	0	2	0

1.8 Overall assessment of the importance of payment systems

The overall assessment is expressed in points from 0 to 10, applying the average of seven sub-matrices' assessments to which equal weight has been applied by the Bank of Latvia.

Payment system	SAMS	EKS	FDL	<i>Itella</i>	PNS	TARGET2-Latvija
Value of the executed payments	10	6	3	1	3	10
Share of critical participants	10	10	10	10	0	10
System's interoperability	10	7	3	6	1	1
Payment system interdependence	8	0	0	0	0	2
The use in monetary policy operations	10	0	0	0	0	0
Economic effects	0	2	5	0	1	0
System's visibility	0	3	10	0	2	0
Overall assessment	7	4	4	2	1	3

2. Oversight status

The current oversight status of payment systems is assessed with respect to four aspects of oversight; each of them is expressed in points from 0 to 5, indicating the points in the respective 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 recency² of the current assessment of payment system's conformity with oversight standards. The assessment performed recently, i.e. in the current year is assigned 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	<i>Itella</i>	PNS	TARGET2-Latvija
Assessment year	2009 ³	2009 ³	2008	–	–	2009 ⁴
Points	5	5	4	0	0	5

2.2 Deadline for implementing the recommendations

The deadline for implementing the recommendations is assessed against the number of recommendations given during the oversight of the respective payment system and their implementation, and the above deadline indicates the necessary scope of oversight with

² Following international practice, payment systems are assessed against the "Core Principles for Systemically Important Payment Systems" published by the Bank for International Settlements.

³ The assessment of the system against the Bank for International Settlements' document "Core Principles for Systemically Important Payment Systems" is reviewed annually and is either amended or left unchanged.

⁴ TARGET2 system has been assessed within the overall ESCB oversight framework.

respect to a particular payment system when complying with the recommendations. The deadline for implementing the recommendations has been assessed as follows:

- 5 – pursuant to the latest assessment, no improvements are required,
- 4 – key recommendations were implemented in three months,
- 3 – key recommendations were implemented in six months,
- 2 – key recommendations were implemented in a year,
- 1 – key recommendations were implemented in two years,
- 0 – assessment has not been performed.

Sub-matrix 2 "Deadline for implementing recommendations"

Payment system	SAMS	EKS	FDL	<i>Itella</i>	PNS	TARGET2-Latvija
Points	5	5	1 ⁵	0	0	4

2.3 Type of the oversight

As regards 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 respective payment system. The type of the oversight is rated as follows:

- 5 – full assessment is performed,
- 4 – specific risks are assessed,
- 3 – regular surveys are conducted,
- 2 – one-off survey is conducted and mutual discussion of the results is held,
- 1 – one-off survey is conducted,
- 0 – oversight measures have not been implemented so far.

Sub-matrix 3 "Type of the oversight"

Payment system	SAMS	EKS	FDL	<i>Itella</i>	PNS	TARGET2-Latvija
Points	5	5	5	3	3	5

2.4 Cooperative review of the most recent assessment

A cooperative review of the payment system's assessment performed by the ECB WGO (Working Group on Oversight) may affect the oversight measures of the respective payment system. The review which has been performed recently, i.e. in the current year, is assigned five points while that performed previously is rated one point lower per year.

Until 2009, the Bank of Latvia and the ECB WGO had not performed such reviews of Latvia's payment systems, with the exception of TARGET2-Latvija which is a component of TARGET2. The WGO also reviewed the assessment of TARGET2 in 2009.

⁵ In 2008, a recommendation was given to review whether agreements and other documents explicitly stipulated the cases when current participants could deny an access to the system for new participants and the participation of a potential participant in the system could be denied groundlessly, and define specific criteria for refusing participation in the FDL system. However, the above has not yet been implemented.

Sub-matrix 4 "The latest cooperative review"

Payment system	SAMS	EKS	FDL	<i>Itella</i>	PNS	TARGET2-Latvija
Points	0	0	0	0	0	5

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 expressing them as assessment ranging from "very high" to "very low" (1 – very low; 2 – low; 3 – average; 4 – high and 5 – very high).

Payment system	SAMS	EKS	FDL	<i>Itella</i>	PNS	TARGET2-Latvija
Time of the most recent assessment of payment system	5	5	4	0	0	5
Deadline for implementing recommendations	5	5	1	0	0	4
Oversight type	5	5	5	3	3	5
The latest cooperative review	0	0	0	0	0	5
Overall assessment	4 – "high"	4 – "high"	3 – "average"	1 – "very low"	1 – "very low"	5 – "very high"

3. Oversight priority

The assessment of 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 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
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"

Payment system	SAMS	EKS	FDL	<i>Itella</i>	PNS	TARGET2-Latvija
Importance of a payment system	7	4	4	3	1	3
Oversight status	4 – "high"	4 – "high"	3 – "average"	1 – "very low"	1 – "very low"	5 – "very high"
Oversight priority	6	3	4	5	3	1

5. Conclusions

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, in the forthcoming periods the primary focus should be on the oversight of *Itella*, reaching agreement on the performance of the system's assessment against the *Core Principles for Systemically Important Payment Systems* published by the Bank for International Settlement and discussing the issues pertaining to the system's role in servicing the SEPA direct debit payments. With respect to the FDL, the issue of implementing the oversight recommendations has to be put forward.