LATVIJAS BANKA

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FINANCIAL STABILITY REPORT

2011

ABBREVIATIONS

BCBS – Basel Committee on Banking Supervision
CAR – capital adequacy ratio
CRD IV – Capital Requirements Directive
CSB – Central Statistical Bureau of Latvia
DENOS – the securities settlement system of LCD
DGF – Deposit Guarantee Fund
DGL – Deposit Guarantee Law
EBA – European Banking Authority
EC – European Commission
ECB – European Central Bank
EEA – European Economic Area
EFSF – European Financial Stability Facility
EKS – electronic clearing system of the Bank of Latvia
EONIA – Euro overnight index average
EU – European Union
EURIBOR – Euro interbank offered rate
FCMC – Financial and Capital Market Commission
FRS – US Federal Reserve System
GAP – repricing gap or difference between RSA and RSL
GDP – gross domestic product
IMF – International Monetary Fund
JSC – joint stock company
LCD – Latvian Central Depository
lr – liquidity ratio
Ltd. – limited liability company
MFI – monetary financial institution
NBFS – non-bank financial sector
OIS – Overnight Index Swap
RIGIBOR – Riga interbank offered rate
ROA – return on assets
ROE – return on equity
RSA – interest rate sensitive assets
RSL – interest rate sensitive liabilities
RWA – risk weighted assets
SAMS – interbank automated payment system of the Bank of Latvia
SRS – State Revenue Service
Treasury – Treasury of the Republic of Latvia
UK – United Kingdom
US – United States of America
VaR – the maximum expected losses over a certain period of time and with a given probability (Value-at-Risk)
VAT – value added tax
VNS – securities settlement system of the Bank of Latvia

Data on the branches of foreign banks registered in the Republic of Latvia have been disregarded for the purposes of calculating ROE, CAR and Tier 1 CAR, open foreign exchange positions, the liquidity ratio set by the FCMC; nor have they been used for liquidity and credit risk stress tests or bank sensitivity analysis with regard to currency and interest rate risks.

Sources: the CSB, the FCMC, LURSOFT (Database of the Republic of Latvia Register of Enterprises), the LCD, the State Employment Agency, Reuters, Latio Ltd., Ober Haus Real Estate Latvia Ltd., Arco Real Estate Ltd., Rent in Riga Ltd., the ECB, Eurostat, the State Unified Computerised Land Register, the State Land Service, the Treasury, and the Bank of Latvia.

Charts have been compiled on the basis of data provided by Bloomberg (Charts 1–3 and 30), the respective national central banks and/or the Bank of Latvia (Charts 1.3, 1.4, 5, 5.1, 7, 8, 10, 11, 15, 20, 21, 23–25, 28, 29, 45 and 49–56), Arco Real Estate Ltd. (Chart 1.1), Latio Ltd. (Charts 1.1, 1.3 and 1.4), Ober Haus Real Estate Latvia Ltd. (Chart 1.1), Rent in Riga Ltd. (Charts 1.2–1.4), credit institution lending surveys conducted by the Bank of Latvia (Charts 2.1–2.9), the CSB (Charts 4, 6, 9, 10, 12–14, 45 and 46), the ECB (Chart 5.1), Reuters (Chart 5.1), the FCMC (Charts 5.1, 16–19, 26, 30–32, 35, 38, 39, 45, 47 and 48 and Table 1), State Employment Service (Chart 9), and estimates prepared by the Bank of Latvia, also based on the FCMC data (Charts 22, 27, 33, 34, 36, 37 and 40–44 and Tables 2–5).

Figures featured in the charts are rounded values.

The Financial Stability Report analyses and evaluates the performance of the Latvian financial system and risks, focussing on the credit institution operation, on the basis of information and data available up to 31 December 2011. Forecasts are also based on more recent data.

The respective indicator of the previous year is provided in braces.

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EXECUTIVE SUMMARY

Against the background of successful economic development, the systemic risks of the Latvian financial sector decreased in 2011. Nevertheless, the consequences of the crises have not been fully overcome yet and potential exacerbation of external risks may weaken the recovery of lending and increase the credit risk and profitability risk which in turn is aggravated by the still fragile creditworthiness of the borrowers, particularly households. Meanwhile, the shock absorption capacity of credit institutions remains high.

The economic growth has supported the strengthening of the financial sector. In 2011, both the Latvian economy in general and the credit institution sector continued to recover and strengthen, despite the deterioration of the external macro-financial environment in the second half of the year and the suspension of the JSC *Latvijas Krājbanka* operations in November. The growth rate of the economy driven by exports and investment was higher than expected. Latvia's fiscal position, labour market conditions and the corporate financial position improved. The IMF and EC assistance programme was closed in December and Latvia's government successfully returned to the international financial markets. The positive developments were reflected in better performance of the credit institutions: the quality of their loan portfolios and profitability gradually improved, loan demand of non-financial corporations rebounded, credit institutions became more active in lending to non-financial corporations and the deposits made by the non-MFI private sector expanded.

Loan portfolio continues to shrink, while its quality is gradually improving. However, one year of successful economic growth is not enough for the creditworthiness of households and non-financial corporations to regain stability after the crisis, for the loan demand to bounce back and the overall economic and credit institutions' future development prospects to become firm. Although the solvency risks of the borrowers are subsiding and the financial performance of non-financial corporations and loan portfolio quality of credit institutions is improving, the recovery in the creditworthiness of the borrowers, particularly households, is slow and the debt burden remains high. Moreover, the latest credit institution surveys suggest that the tendency of easing the credit standards at the credit institutions no longer continued, similarly as elsewhere in Europe. The domestic loan portfolio continued to contract both in the household and non-financial corporation sectors. This was supported by the decreasing private sector debt as a result of the borrowers repaying their loans and credit institutions being more active in writing off unrecoverable loans. The aggregate domestic loan portfolio of credit institutions is expected to shrink further in 2012: the development of the credit institution sector and non-MFI private sector will be dampened by the high volume of bad debt, conservative lending policies and the fragile creditworthiness of borrowers.

The role of non-MFI private sector deposits in credit institution sector financing is increasing. Alongside with the decrease of the aggregate loan portfolio, it can be expected that loan repayments to parent banks from the Nordic countries will continue and the role of non-MFI private sector deposits in the financing of Latvian credit institutions will grow, the same as in 2011. The availability and the price of longer-term financing will determine the lending terms on the domestic market. The funding risk remains higher for those credit institutions without the parent bank financing whose loan portfolios are financed by non-MFI private sector deposits of short maturities and concentrating on services to non-residents. Moreover, the unstable conditions on the European financial markets mean that those credit institutions will not have an easy access to MFI financing on foreign financial markets.

In November 2011, in connection with the suspension of the JSC *Latvijas Krājbanka* operations, the depositor protection mechanism enshrined in the DGL was put to use for the first time in the history of Latvia. The disbursements of the guaranteed deposits to the customers of the JSC *Latvijas Krājbanka* were organised smoothly; therefore, even though its suspension did temporarily impaired the depositor confidence, it had no serious effect on the stability of the credit institution sector, and non-MFI private sector deposits resumed growth already in December.

In 2012, the systemic risks to the financial sector development primarily stem from the external environment. The main source for the systemic risk and uncertainty surrounding the future economic development of Latvia and its financial stability is the euro area sovereign debt crisis and the associated adverse effect on the European financial system. A-deeper-than-expected fall in the external demand caused by potential intensification of the euro area sovereign debt crisis and slowdown of lending in Europe is the most significant downward risk to Latvia's economic growth envisaged under the baseline scenario, thereby also exacerbating the credit risk and profitability risk of the credit institution sector.

With uncertainty persisting, an additional risk is posed by the fact that the creditworthiness of non-financial corporations and particularly that of households remains fragile and the stock of past-due loans is large. Should the external factors push the economy into a recession, the borrowers capacity to absorb additional financial complications would be limited and the quality of credit institution loan portfolios (particularly those of restructured loans), profitability and future lending prospects would deteriorate.

At the same time, the funding risk could increase significantly and reach a systemic level only in the event of a sharp deterioration in the external environment dealing a serious blow to the resident and non-resident depositor confidence in the credit institution sector and exerting a long-lasting and significant influence on the market financing opportunities of parent banks. Currently, such a probability is not high.

One of the medium-term risks to dynamic development of the financial sector and healthy lending opportunities is the risk of failure to carry out all the required reforms to ensure competitive and sustainable economic development and the risk that because of this failure the borrowers' creditworthiness could remain weak for a longer time and the earning opportunities of credit institutions stemming from more active and secure lending could remain limited.

The shock absorption capacity of credit institutions remains high. The capitalisation levels of credit institutions increased significantly in 2011, and the average CAR was more than two times higher than the regulatory minimum capital requirements. Credit risk stress testing results also suggest that the overall credit risk shock absorption capacity of the credit institution sector strengthened in the course of 2011, reaching a high level at the end of the year. The stress tests confirm that the credit institutions will be able to withstand potential shocks caused by the materialisation of an adverse economic development scenario as well as by the additional losses resulting from risky loans also in 2012. The capital base of the credit institutions is sufficient for the credit institutions to be able to increase the required provisions without raising additional capital.

The data on the JSC *Parex banka* which no longer has a full functionality as a credit institution and the JSC *Latvijas Krājbanka* whose operation was suspended in November excluded, the credit institution sector concluded the year 2011 with profit. Moreover, the operating income increased in comparison with 2010. Nevertheless, a significant part of the profit was made by the income from reducing provisions which is not a sustainable source of income; therefore, credit institutions should continue with spending cuts and find additional sources of profit. It is expected that the profitability of credit institutions in 2012 will be supported by the large spread between the lending and deposit rates, shrinking share of loans past due in the loan portfolio (according to the baseline scenario), further reduction of the loan loss provisions and previously implemented cost optimisation. Further contraction of the loan portfolio as well as the increasing of the financial stability duty and contributions to the Deposit Guarantee Fund will have a negative effect on the levels of credit institution profit.

Considering the potential risks, credit institutions should continue with careful monitoring of the loan quality and employ a conservative approach in assessing the level of the required provisioning. In light of the potential risks, measures to decrease the proportion of the bad loans on the credit institution balance sheets and develop instruments for raising long-term funding also should be implemented.

1. MACROFINANCIAL ENVIRONMENT OF CREDIT INSTITUTIONS

In 2011, the development of external and internal macrofinancial environment in which credit institutions operated was not homogenous. On the one hand, the external demand from major trade partners was relatively high and the positive growth posted by Latvia's economy was also reflected in improved performance of the Latvian sector of credit institutions. On the other hand, along with the aggravation of the euro area sovereign debt crisis, external risks to growth and financial stability escalated notably in the second half of the year. In this environment, the risks to Latvia's economic outlook also intensified and, together with credit and profitability risks to Latvian credit institutions mounting, delayed the recovery of lending so vital for the economic progress. At the same time, the ability of borrowers, households in particular, to absorb extra financial problems remained limited.

1.1 External macrofinancial environment

External risks escalated markedly in the second half of 2011. The process of macroeconomic recovery and stabilisation, observed in the global and EU financial markets in 2010 and the first half of 2011, was once again overshadowed by augmenting tensions and uncertainty. In some euro area countries, aggravating fiscal situations soon turned into broad-based sovereign debt crises, posing serious systemic threats to the EU financial stability and economic outlook both across Europe and other world regions.

Uncertainty, elevated risks to the financial sector, contracting liabilities of credit institutions, fiscal consolidation and higher public debt refinancing costs will be factors behind a potential moderate recession in the euro area economy in 2012, with the EU economic growth averaging zero. The global economic development is likely to slow down below forecasts as well. Meanwhile, the overall growth in Latvia's major trade partners in Europe, elsewhere and also in the countries of origin – Sweden and Norway – of major Latvian bank parent banks will remain positive and higher than in the EU on average, albeit somewhat weaker than in the previous year. According to the baseline scenario, it gives rise to hopes that exports will also expand, the GDP growth will continue in Latvia (though at a slower pace), and risks to credit institutions' performance will be limited.

Taking into account insignificant investment of Latvian credit institutions in euro area risky debt securities, already settled syndicated loan liabilities by the Latvian credit institutions and, in contrast to credit institutions of many other European countries, the parent banks of largest Latvian banks not facing serious financing problems at this juncture, the adverse effects of external developments are likely to be most reflected in Latvia's financial system via external demand and economic growth, thus also affecting the already fragile creditworthiness of borrowers. Moreover, credit institutions and borrowers have not yet fully coped with the effects of the previous crisis. Nevertheless, stabilisation in external financial markets is vital for the Latvian credit institutions without the support from parent banks to resume the attraction of reasonably-priced foreign market funding and to diversify their own financing.

As risks in Europe are elevated and recessionary pressures are likely to intensify amid potentially aggravating sovereign debt crisis and faster-than-expected lending contractions, the primary risk is that growth in Latvia and its major trade partners may fall behind the projections of the baseline scenario. Hence there is a possibility that credit and profitability risks might intensify for credit institutions in Latvia. Like elsewhere in Europe, lending opportunities may weaken again.

The euro area fiscal problems, risks to the European financial institutions and the economic outlook are closely related interacting domains. Therefore, it is of vital importance how the euro area sovereign debt crisis will be addressed in the future, how the European financial markets will evolve and what the dynamics of the EU credit institution sector risks will be, because these factors support foreign demand and sentiments of economic agents.

The sovereign debt crisis, which initially was believed a problem of individual euro area economies, in the second half of 2011 affected most euro area countries. At the close of the year, credit risk insurance premium on 5-year US dollar-denominated sovereign debt exceeded 200 basis points (see Chart 1). Yields on sovereign debt securities rose not only in countries implementing support programmes (Greece, Ireland and Portugal) and other fiscally more vulnerable nations (Italy, Spain and Cyprus) but also in economies so far deemed stable (see Chart 2).

Chart 1

CREDIT RISK INSURANCE PREMIUM ON 5-YEAR US DOLLAR-DENOMINATED SOVEREIGN DEBT

(in thousands of basis points)

Latvia
Lithuania
Estonia
Portugal
Ireland
Italy
Spain
Germany
Norway
Sweden

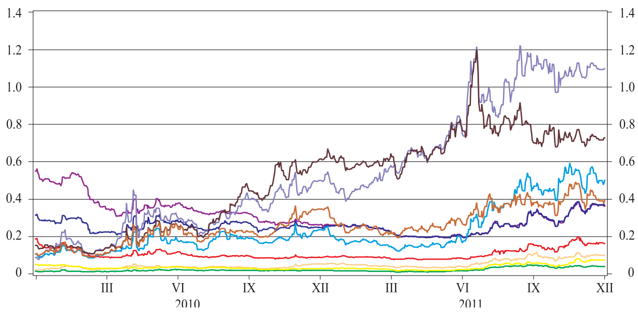
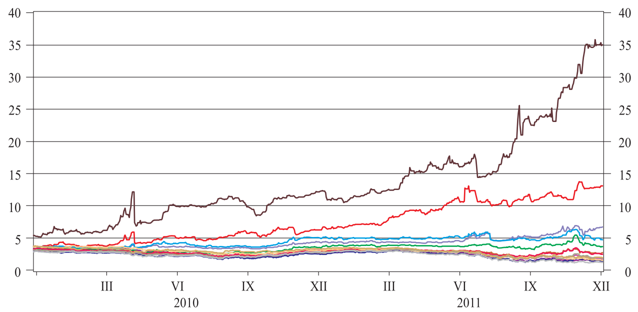


Chart 2

GOVERNMENT 10-YEAR BOND YIELDS

(%)

USA
Germany
Portugal
Italy
Greece
Spain
France
Netherlands
Belgium
Austria
United Kingdom
Finland
Sweden
Norway



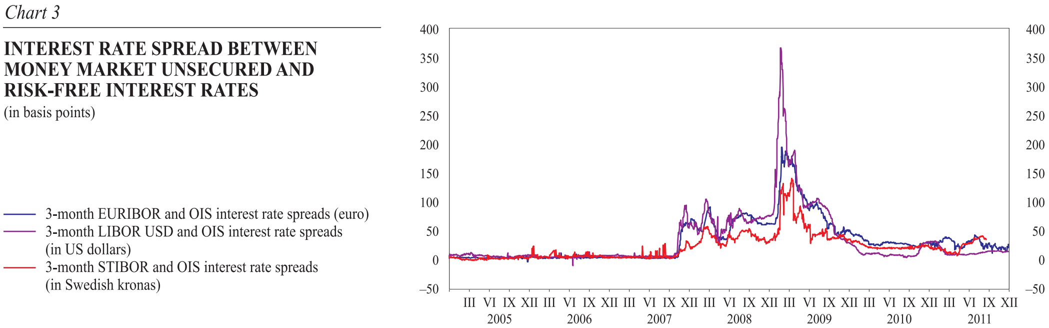
The systemic nature of sovereign debt crisis is confirmed also by its negative impact on credit institutions in Europe. Higher sovereign risks have exerted a negative effect on the access to and prices of credit institutions' financing. The broad-based confidence crisis deactivated financial market participants by substantially reducing their access to both long-term and short-term financing, particularly so for relatively small euro area credit institutions and those in most debt-stricken euro area countries.

Towards the end of 2011, the prices of resources in short-term finance markets were approaching the level attained at the close of 2008 in the aftermath of Lehman Brothers collapse (see Chart 3). The price of US dollar-denominated financing of traditional significance for euro area credit institutions also rose substantially. Moreover, some financing channels closed down temporarily, e.g. in the second half of the year, the US money market funds almost completely discontinued issuing financing to certain euro area credit institutions.

The fund-attraction problems of European credit institutions were the drivers not only behind a higher risk to credit institutions' liquidity and financing, but also to excessive shrinking of credit institutions' liabilities. The results of the ECB January 2012 survey of credit institutions' financing suggest that tighter credit standards are imposed and fewer new loans are offered to non-financial corporations and households. It is expected, in

Chart 3

INTEREST RATE SPREAD BETWEEN MONEY MARKET UNSECURED AND RISK-FREE INTEREST RATES
(in basis points)



addition, that the processes of reducing credit institutions' liabilities are likely to affect lending and growth in a number of countries in Central and Eastern Europe where parent banks located in the euro area are important players in the sector of credit institutions.

The problem of capital adequacy of EU credit institutions ranks equally important as it may be aggravated by eventually deteriorating credit quality due to recession in the euro area. Amid heightened financial tensions, credit institutions find it difficult to attract new funding. As a result, the risks of excessively contracting liabilities of credit institutions are intensifying.

Non-standard measures taken by the ECB and national central banks alleviated liquidity strains in the euro area at the end of 2011. The market situation was most stabilised by three-year liquidity operations launched by the ECB via which the euro area credit institutions were extended a total of more than 1 trillion euro in December 2011 and February 2012. There was a series of other ECB extraordinary measures to avert liquidity problems: reducing from 2% to 1% of the reserve ratio, relaxing of collateral terms, launching of long-term operations, and repeated extension of tender procedure maturity enabling euro area credit institutions to borrow unlimited amounts of funding from the ECB. The pressing problem of liquidity shortages in US dollars in the euro area sector of credit institutions in the second half of 2011 was addressed by a coordinated action of six major central banks (the FRS, the ECB, the Bank of England as well as national banks of Canada, Switzerland and Japan) that agreed on re-starting the US dollar liquidity swap arrangement and lowering pricing on it.

Even though such extraordinary measures managed to stabilise the market substantially in the short term, medium-term risks remain high and strains are only partly alleviated. The EU financial sector continues to be ruled by strong uncertainty and volatility. The financing and insurance costs of sovereign debt are soaring in a number of euro area countries. At the end of 2011, Standard & Poor's and Moody's lowered credit ratings for a number of euro area countries and the EFSF. Concerns are likewise in place that problems related to sovereign debt refinancing can intensify not only in Greece but also in other vulnerable peripheral countries of the euro area and, thus, exert an adverse impact on the financial market. As a consequence, the euro area sovereign-debt-related problems and the financial position of credit institutions still figure as sources emanating uncertainty, which, in turn, jeopardise the economic growth across the EU, Latvia including.

1.2 Domestic macrofinancial environment

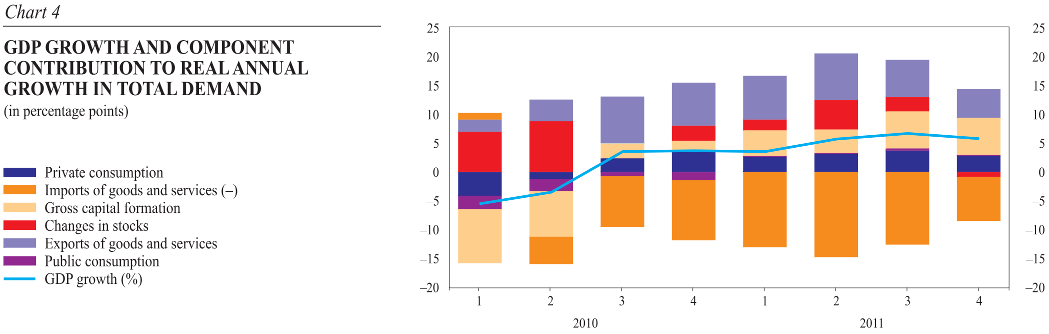
1.2.1 Macroeconomic and financial developments

Exports, supported by renewed competitiveness, investment and sufficiently high demand from major trade partners, were the primary drivers behind the economic growth in Latvia in 2011. Rising income from exports spurred also the development of domestic-market-oriented sectors, hence growth in GDP amounted to 5.5% in 2011 (see Chart 4).

Better indicators of corporate finance and a step-by-step quality improvement in credit portfolio as well as somewhat strengthening demand for loans from non-financial corporations also testified to the economic growth. However, in the second half of the year, amid weakening external demand, the export growth rate gradually moderated. To a large extent, the external factors are expected to underpin the development of exports, the economy and, consequently, also the financial sector in the future as well.[1]

Chart 4

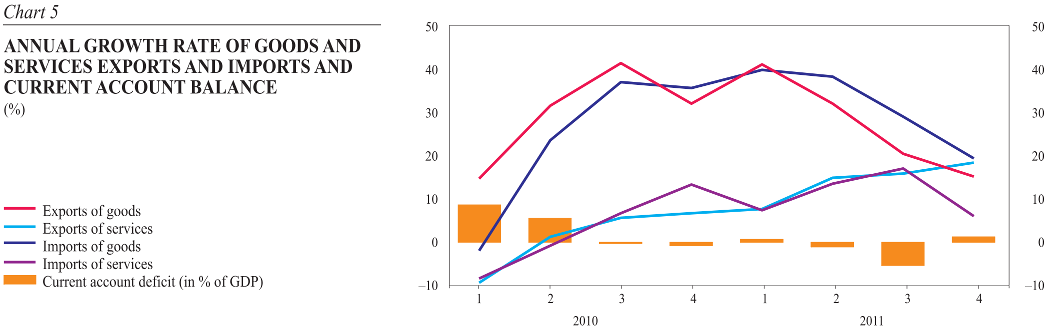
GDP GROWTH AND COMPONENT CONTRIBUTION TO REAL ANNUAL GROWTH IN TOTAL DEMAND
(in percentage points)



As imports expanded slightly faster than exports (see Chart 5), the current account deficit of the balance of payments rose somewhat (to 1.2% of GDP) in 2011. Nevertheless, it stood at a low level, pointing to a more balanced economy than in the pre-crisis period. In addition, intermediate and capital goods needed for investment in the production of export commodities accounted for around 2/3 of all imports.

Chart 5

ANNUAL GROWTH RATE OF GOODS AND SERVICES EXPORTS AND IMPORTS AND CURRENT ACCOUNT BALANCE
(%)



In 2011, investment grew significantly, with productive investment expanding faster: a half of non-financial investment went to manufacturing and transport. Investment in equipment and machinery, also infrastructure, increased at a particularly fast pace. Investment volumes boosted on account of investment projects financed from the EU funds, investment of large domestic non-financial corporations and renewed financing of competitive projects. Meanwhile, the amount of foreign direct investment vis-à-vis 2010 increased fourfold in 2011. The upgrading of Latvia's rating by international rating agencies was another factor adding to the attractiveness of local business environment.

The strengthening in domestic private consumption was sluggish in 2011, its slow recovery on account of weak purchasing power and the high debt level. Although household debt levels were declining, the demand for loans from households continued to be weak and the quality of loans extended to households improved slowly. While the growing employment and average wages and salaries pushed up disposable income of households, the raised tax rates and hiking prices (for food and energy in particular) set limits on improvements in their purchasing power, and the increase in net real wages was a mere 0.1%. Unemployment, albeit slightly below the level at the beginning of 2011, likewise remained high. The rate of long-term unemployed was high, and structural disparities between labour market supply and demand were notable. In 2012, unemployment is likely to shrink at a slower pace than in the previous year, and a marginal rise in net real wages is to be expected. Consequently, substantial changes in household solvency power and private consumption are not to be expected as yet.

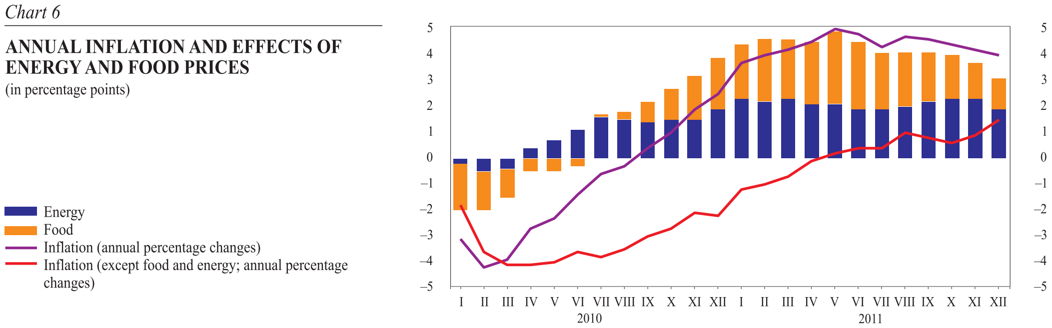
Borrowers' creditworthiness was negatively impacted by soaring consumption and production costs in 2011 (by 4.4% and 7.7% respectively), which basically resulted from

[1] See Macroeconomic Developments Report of April 2012 for the update of Bank of Latvia GDP forecast.

external factors (energy and food price rises in global markets) and higher tax rates (see Chart 6)[2]. Inflationary pressures are expected to abate in 2012, and upward trends in them could be triggered only by a more massive rise in energy prices.[3]

Chart 6

ANNUAL INFLATION AND EFFECTS OF ENERGY AND FOOD PRICES
(in percentage points)



A more buoyant economic growth and fiscal consolidation measures (primarily revenue from raised rates of individual taxes) determined a smaller-than-projected deficit in the consolidated general government budget in 2011 (3.1% of GDP estimated on a cash-flow basis and 3.5% of GDP recorded on an accrual basis). The general government debt contracted to 42.7% of GDP in 2011. It is of importance to note that at the close of 2011 Latvia successfully completed the IMF and EC support programme and commenced the drafting of a fiscal discipline law aimed to exclude a return to pro-cyclical budget policy. The general government budget deficit is expected not to exceed 2.5% of GDP (recorded on an accrual basis) in 2012.

The Latvian government has successfully returned to international financial markets.[4] It was of vital importance, as in the years to come Latvia is to start the repayment of international loans and proceed with financing the budget deficit, which is gradually being curtailed now and will be in the future. It was a positive signal for credit institutions as well, for their potential to borrow from international markets was thus enhanced. In the meantime, the aggravation of the euro area sovereign debt crisis increased Latvia's credit risk assessment (like that of many other countries in Europe) at the end of 2011 (see Chart 1): the credit risk insurance premium on 5-year US dollar-denominated sovereign debt for Latvia went up from 265 to 365 points in 2011, mainly on account of the changing external factors.

The developments in external financial markets notwithstanding, the domestic financial market situation was generally stable in 2011, except at the end of the year when, due to discontinued operation of the JSC *Latvijas Krājbanka*, interbank interest rates temporarily rose by almost 1 percentage point. By mid-November when this credit institution stopped operating, the interbank interest rates had been stable and at a low level (see Chart 7), with 6-month RIGIBOR slipping down below EURIBOR and EONIA of the same maturities in the first months of 2012.

Meanwhile, excess liquidity of credit institutions declined in 2011. In December, the average balance of overnight deposit facility and 7-day deposit facility at the Bank of Latvia was 309.0 million lats {922.6 million lats}[5]. Liquid assets of credit institutions with the Bank of Latvia were reduced by their sales of lats for euro during Bank of Latvia spot transactions, an increase in currency in circulation and larger government lats deposit with the Bank of Latvia (see Chart 8). Credit institutions sold lats to the Bank of Latvia, because the demand from parent banks for euro remained high: foreign credit

[2] VAT standard rate was raised by 1 percentage point (to 22%), whereas the reduced VAT rate was increased by 2 percentage points (to 12%). The reduced VAT rate on electricity and natural gas supplied to the population was replaced with the standard rate. Excise tax on fuel, alcohol, tobacco and natural gas used in heat production was also raised.
[3] See Macroeconomic Developments Report of April 2012 for the update of Bank of Latvia inflation forecast.
[4] In June 2011, the government of Latvia issued 10-year bonds worth 500 million US dollars, the average yield rate was 5.49%. The credit risk margin above the currency swap interest rate was 238 basis points. In February 2012, the government of Latvia issued 5-year bonds worth 1 billion US dollars, the average yield rate was 5.375%. The credit risk margin above the currency swap interest rate was 428 basis points.
[5] The indicator of the respective period of previous year is given in braces.

institutions that had lent funds to their daughter companies in Latvia went on cutting their euro position in Latvia. The amount of currency in circulation in December boomed due to discontinuation of the JSC *Latvijas Krājbanka* operation.

Chart 7

RIGIBOR
(%)

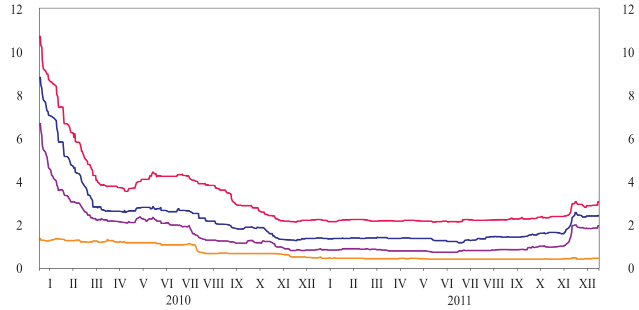
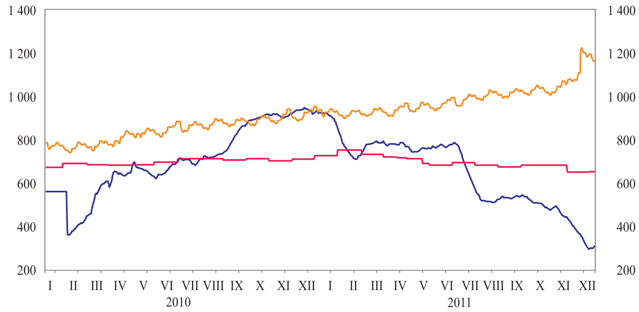


Chart 8

EXCESS LIQUIDITY OF CREDIT INSTITUTIONS AND CURRENCY IN CIRCULATION
(in milions of lats)



In 2011, the Bank of Latvia kept its interest rates and reserve ratio for credit institutions unchanged, as the monetary instruments had been adjusted to the needs of economy since 2010. As the Bank of Latvia deposit facility was the primary monetary policy instrument for credit institutions, the money market interest rates of respective maturities were close to the Bank of Latvia deposit facility rates, i.e. at their historic lows for protracted period. In January 2012, the Bank of Latvia lowered the reserve ratio by 1 percentage point (from 3% to 2% for credit institution liabilities with agreed maturity of over 2 years and from 5% to 4% for the other credit institution liabilities included in the reserve base). By reducing the reserve ratio, additional funds for lending were released and more favourable conditions to access credit resources needed for economic growth were created.

1.2.2 Financial vulnerability of credit institution customers

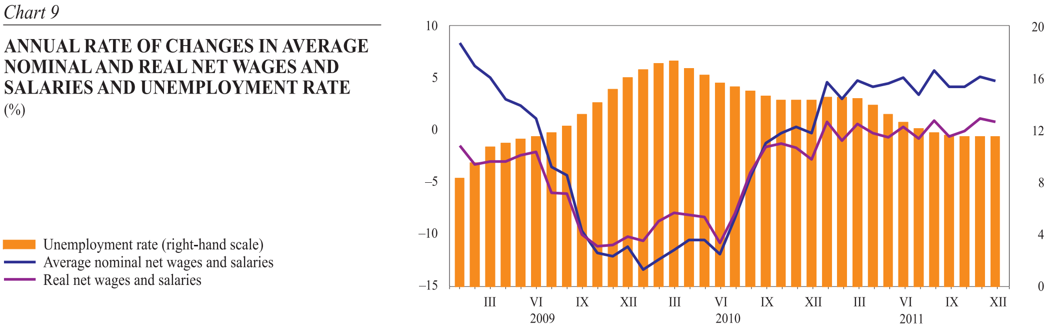
1.2.2.1 Financial vulnerability of households

The financial position of households did not improve notably in 2011. Wages and salaries of the employed started to increase at the close of 2010 and continued on this upward trend throughout 2011. The indicators of consumer sentiment improved, supporting a better assessment of the financial position. However, as under the impact of taxes and global price rises inflation went up, the real growth of labour remuneration was close to zero; a slight upward trend emerged only towards the close of the year (see Chart 9), hence household purchasing power did not improve markedly. A part of households continued to face significant hardships due to higher real estate tax payments. The steep fall in unemployment observed at the beginning of 2011 decelerated in the second half of the year. With the economic growth losing momentum, unemployment is expected to shrink slowly and household solvency to improve insignificantly.

The amount of new loans vis-à-vis the repayment of already extended ones was very small, hence household debt continued to contract sharply. In addition, the pace at which household debt to MFIs shrank accelerated: by December 2011, it had decreased by 8.0% year-on-year (by 6.3% in 2010). Cautious lending policies of credit institutions (see Box 2) and slow renewal of household solvency were the underlying factors, hence

Chart 9

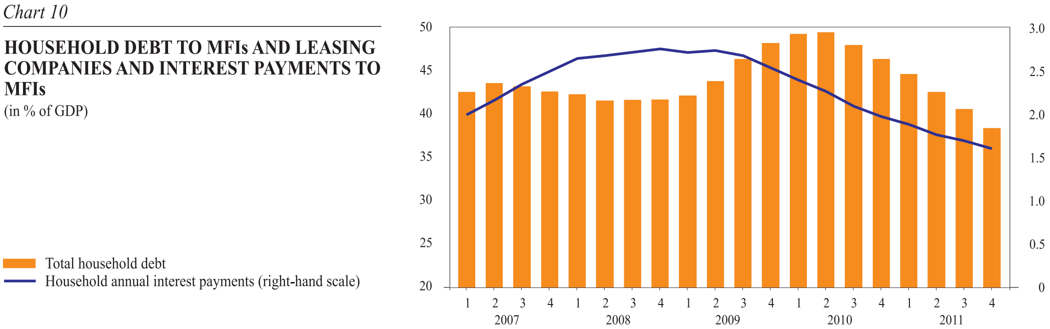
ANNUAL RATE OF CHANGES IN AVERAGE NOMINAL AND REAL NET WAGES AND SALARIES AND UNEMPLOYMENT RATE
(%)



the amount of old loans repaid notably exceeded the amount extended in new loans. With such debt dynamics and amid recovering economic growth, the household debt (to MFIs) to GDP contracted by 7.7 percentage points year-on-year at the end of 2011 (to 38.6% of GDP; see Chart 10).

Chart 10

HOUSEHOLD DEBT TO MFIs AND LEASING COMPANIES AND INTEREST PAYMENTS TO MFIs
(in % of GDP)

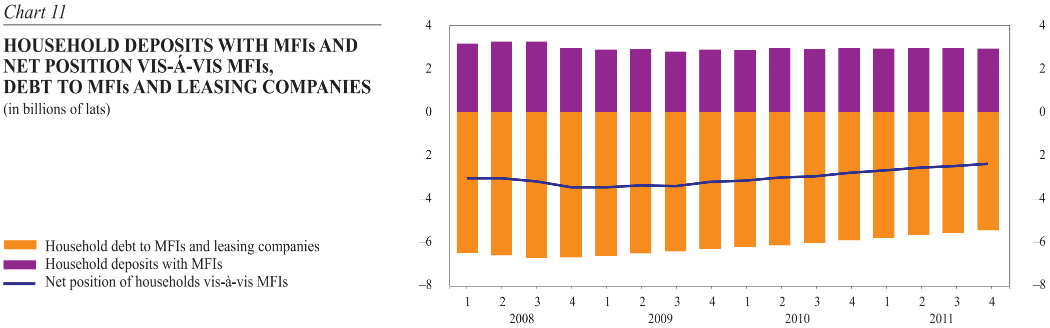


Household deposits with MFIs in 2011 stood at almost the same level as in 2010, posting a marginal 0.5% drop compared with the year's end. Turbulences affecting the credit institution sector at the end of 2011 did not result in long-term changes in household deposits. Inaccessibility to funds deposited with the JSC *Latvijas Krājbanka* was effectively addressed via the Deposit Guarantee Fund. Moreover, the deposit term structure changed in favour of long-term deposits: compared with end-2010, the latter grew by 81.3 million lats, whereas short-term deposits contracted by 98.2 million lats. The process was driven by both higher long-term deposit rates as of the second half of the year and competition, via a more favourable depositing term offer, among credit institutions for those customers whose deposits with the JSC *Latvijas Krājbanka* were refunded.

As household debt to credit institutions decreased and deposits remained almost unchanged, the household net position improved significantly. In the course of 2011, the negative household net position fell by 15.2% (see Chart 11), while its ratio to GDP shrank by 5.1 percentage points year-on-year (to –16.9%). Household net debt at a similar level was last recorded in 2007.

Chart 11

HOUSEHOLD DEPOSITS WITH MFIs AND NET POSITION VIS-Á-VIS MFIs, DEBT TO MFIs AND LEASING COMPANIES
(in billions of lats)



The interest payment burden of households continued to decline in 2011 primarily due to the shrinking loan portfolio. Interest payments in 2011 were by 10% lower than in the previous year, with their ratio to GDP falling to 1.61% (see Chart 10). With the ECB raising the refinancing rate, the rise in EURIBOR observed at the end of 2010 and the first half of 2011 slightly pushed up interest rates on loans for a part of households; at the end of 2011, however, when the ECB returned to cutting the refinancing rate, EURIBOR started to go down, thus alleviating the interest payment burden for households.

Following the passing of the new Insolvency Law in 2010, the number of private persons' insolvency petitions increased sharply, yet overall it is assessed as relatively low vis-à-vis total loans long past due. The total of private persons' insolvency petitions submitted in 2011 exceeded the 2010 figure more than three times and was on an upward trend, thus suggesting that active resorting to insolvency proceedings is likely to continue also in 2012.

1.2.2.2 Financial vulnerability of non-financial corporations

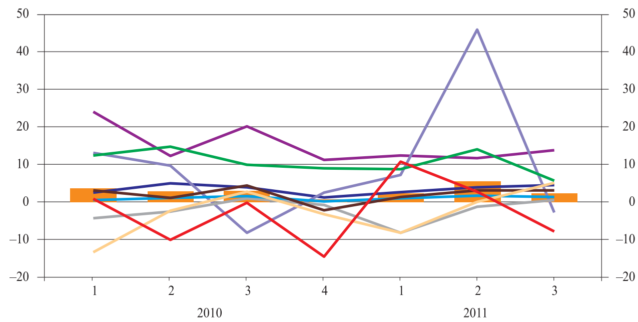
As the economy continued on a growth track, the total turnover and profits of non-financial corporations increased in 2011. However, the recovery of profitability was uneven (see Chart 12). The reports of non-financial corporations surveyed by the CSB suggest that in the first three quarters of 2011 overall the returns on sales of non-financial corporations (profit margin) stood at 3.5% (0.4 percentage point higher year-on-year). Larger income from other economic activity in the electricity, gas supply, heating and air conditioning sector (hereinafter in the text, the electricity sector) contributed substantially to improved profitability indicator. Profitability in trade grew consistently with the expanding consumption, and profitability in the hospitality and catering services sector revived likewise. Cost elevation somewhat moderated profitability in transport and storage, and telecommunication operators' competition for customers undermined that of information and communications services sector. Despite the demand for real estate becoming stronger, the recovery in real estate and construction was extremely volatile.

Chart 12

PROFITABILITY OF NON-FINANCIAL CORPORATIONS

(%)

Total
Agriculture, forestry and fishing
Manufacturing
Real estate activities
Electricity, gas, steam and air conditioning supply
Construction
Trade
Transportation and storage
Accommodation and food service activities
Information and communication



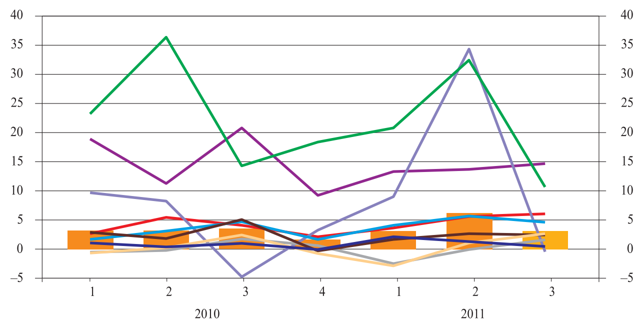
Insolvency risks of non-financial corporations continue on a gradual downward track, for amid rising profits the interest coverage ratios of non-financial corporations have increased (the ratio of earnings before interest and taxes to interest expense; see Chart 13). Although interest expense of non-financial corporations increased in the first half of 2011 due to EURIBOR-rise-related elevation of interest rates on loans extended by credit institutions, the profit growth enabled most sectors to improve their interest coverage. In the first three quarters of 2011 overall, the interest coverage ratio was 4.1% (by 0.9 percentage point higher year-on-year) and growing in most sectors. A drop in interest coverage ratio was observed in such sectors as information and communication, transport and storage, and construction. When the ECB lowered refinancing rates and EURIBOR

Chart 13

INTEREST COVERAGE RATIOS OF NON-FINANCIAL CORPORATIONS

(times)

Total
Agriculture, forestry and fishing
Manufacturing
Real estate activities
Electricity, gas, steam and air conditioning supply
Construction
Trade
Transportation and storage
Accommodation and food service activities
Information and communication



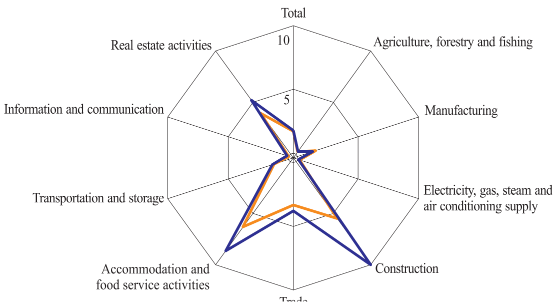
base rates dropped subsequently, interest rates on loans to non-financial corporations declined again in the second half of 2011, and the interest payment burden most likely diminished towards the close of 2011 as well.

The debt-to-equity ratio of non-financial corporations posted a slight year-on-year upswing in the first three quarters of 2011 (see Chart 14). Construction, hospitality and catering services as well as real estate activities, i.e. sectors having accumulated impressive debt burdens in the past, recorded a steeper rise in debt levels primarily on account of losses accrued in the previous year. By contrast, the debt burden eased somewhat in manufacturing, which managed both to increase capital and to accumulate profits. With the economic growth trend persisting and non-financial corporations earning profit, the debt burden of non-financial corporations is likely to alleviate; nevertheless, the indicators of the third quarter performance suggest that this burden continues to be impressive and undermines opportunities of non-financial corporations to increase their liabilities in support of faster development.

Chart 14

LIABILITIES-TO-EQUITY RATIOS OF NON-FINANCIAL CORPORATIONS

(times)



In nine months of 2010
In nine months of 2011

After the enactment of the amended Insolvency Law as of 1 November 2010, the number of insolvency petitions from legal entities in 2011 vis-à-vis 2010 dropped radically (by 67.7%), because the requirement for a deposit in the amount of two minimum monthly wages upon launching insolvency proceedings reduced the motivation of non-financial corporations to resort to the latter when collecting small debt amounts. This has given rise to certain obstacles for the SRS to strike off dormant non-financial corporations; however, the drafting of amendments to the Commercial Law providing for a streamlined procedure for the termination of a non-financial corporation at the discretion of the SRS and the Register of Enterprises of the Republic of Latvia is underway. However, the analysis of insolvency petitions by month suggests that in 2011 due to the improved financial position of non-financial corporations their distribution has smoothed out and was on a slightly downward trend in the second half of the year.

Box 1. Latvia's real estate market

In 2011, an activity increase was observed in Latvia's real estate market; however, it was uneven across the market segments. Overall, in 2011 the number of purchase agreements registered with the State Unified Computerised Land Register grew by 13.9% (including by 16.9% in Riga). The transactions registered with the Riga City and Jūrmala Land Registry Offices were the major contributors to the growing number of transactions (30.1% and 9.5% of the total increase respectively). The rapid growth was driven by the high non-resident demand for housing.

In 2011, the Latvian government proceeded with the real estate tax reform, doubling the housing tax rates introduced in 2010[6], and continued to revise the real estate cadastral values. In order to offset the rapid increase in taxes on land for construction purposes, a new target for the real estate use "Unused land for construction purposes" was introduced to be applied to such land for construction purposes where no construction had been carried out yet and no infrastructure (the access road and connection to electrical

[6] "Amendments to the Law "On Real Estate Tax"", 20 December 2010.

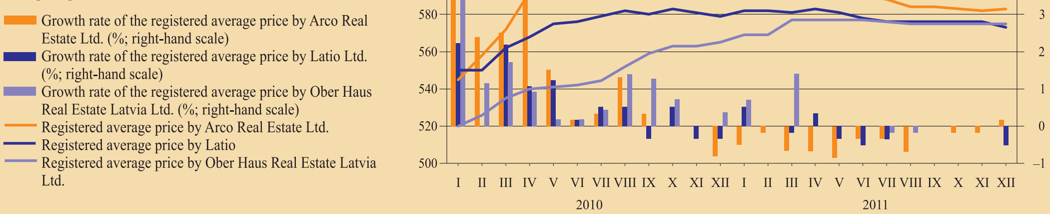
transmission-networks) built up, thus allowing for a 50% decrease in the real estate tax payments for the owners of such land plots. However, overall given the still low solvency of households, the total growth of the real estate tax payments place a significant burden on a part of households.

Following the "Amendments to the Immigration Law"[7] of 2010, allowing non-residents to receive a temporary residence permit when purchasing a real estate, the non-resident demand for real estate in Latvia increased notably. Non-residents were mainly looking for high quality apartments in the centre of Riga and new buildings, as well as in Jūrmala.

Non-resident demand for high quality apartments mainly in Riga planning region and the limited supply increased their prices considerably. The State Land Service data suggest that in some cases the trading prices of such real estate even reached the level observed in 2006–2007. The prices of the apartments in new buildings of the economy segment also posted an increase; yet, this was more promoted by the resident demand. The households whose financial situation has stabilised or improved are willing to improve their living standards and purchase a better dwelling; however, they face limited supply. The quality of the apartments offered in the segment of standard apartments is rather low and additional investment in repair is often needed. At the same time, credit institutions are still very cautious and offer a low loan-to-purchase value ratio for potential borrowers, thus households should be able to finance a large part of the purchase with their own funds. It is possible to get better credit conditions when purchasing apartments in new buildings, although they are more expensive than standard apartments. Such a combination of factors contributes to the demand for economic apartments in new buildings of households whose solvency and future expectations have improved. Nevertheless, this supply is relatively limited (construction is not yet finished in a part of new buildings, while the owners of some of such apartments are not willing to sell them at the current market price, as their construction or purchase has cost them considerably more); consequently, the average apartment price goes up. Although the demand for apartments in new buildings has increased, the transactions with the standard apartments still account for the majority of the transactions with apartments; however, their average price has remained almost unchanged during 2011 (see Chart 1.1).

Chart 1.1

STANDARD APARTMENT AVERAGE PRICE PER SQUARE METER IN RIGA AND ITS MONTHLY RATE OF CHANGE
(euro per square meter)



In 2011, credit institutions continued to foreclose real estate from the insolvent borrowers and to make it available to their asset management companies. Nevertheless, 2011 also marked a new trend – with both the resident and non-resident demand for apartments in new buildings rising, the real estate foreclosed by credit institutions started to return to the market. Foreign investors who purchased real estate with the aim of renting and selling it started to operate in Latvia's real estate market, thus both cleaning the balance sheets of credit institutions' asset management companies and potentially increasing the supply on the rental market of housing.

With the renewed demand for real estate, particularly for apartments in new buildings, several real estate developers resumed the construction works in the unfinished new buildings as well as planned the development of new projects. Hence, housing construction

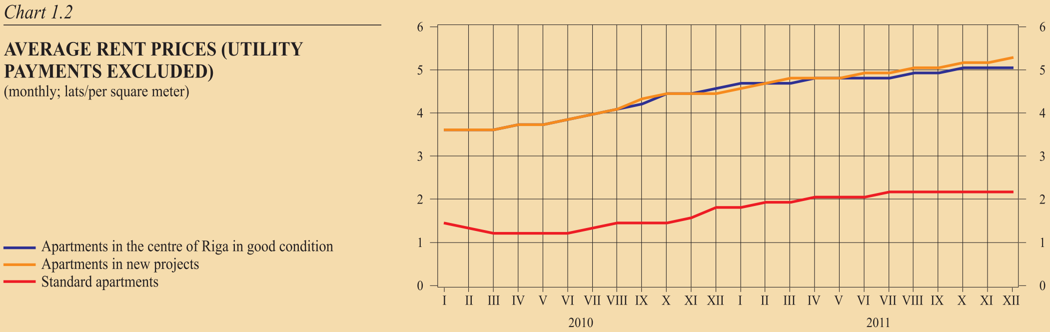
[7] "Amendments to the Immigration Law", 22 April 2010.

started to expand slightly in 2011, with both the number of the issued building permits (by 15.7%, including by 18.4% for new apartment houses) and the construction output (by 14.7%) increasing. This was also mirrored by the improved construction sector profitability (see Chart 12).

An increase in rent on the housing rental market continued in 2011, driven by the activity on the rental market of the households with no possibilities to purchase a dwelling. At the same time, with the supply on the rental market remaining limited but the household demand increasing, an upward pressure affected the rent (see Chart 1.2). On the housing rental market, the rent increase for apartments in new buildings and renovated buildings (whose supply is very limited) was more pronounced, but the rise in the rent for the standard apartments was hindered by the low quality of the apartments in the supply.

Chart 1.2

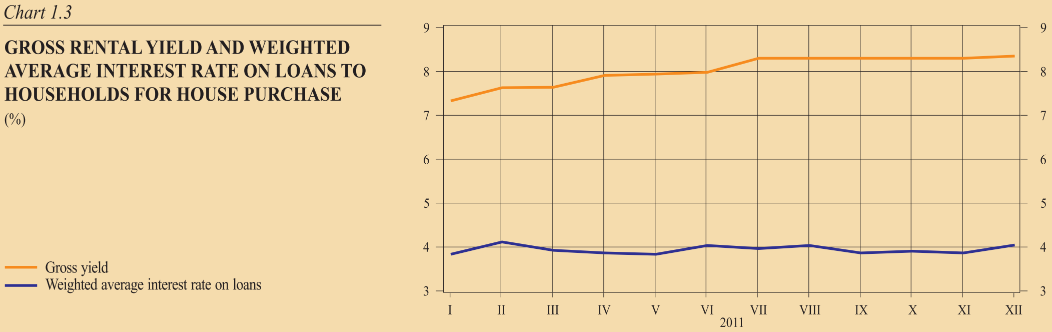
AVERAGE RENT PRICES (UTILITY PAYMENTS EXCLUDED)
(monthly; lats/per square meter)



With the rent for the standard apartments increasing but their purchase prices and the average interest rates on new loans for house purchase remaining unchanged, both the gross[8] rental yield and net[9] rental yield increased in 2011 (see Charts 1.3 and 1.4). The surplus in the demand (both for the standard apartments and apartments in new buildings) on the rental market of the housing in combination with a rise in yields make Latvia's rental market interesting for investors as a relatively safe source of income. Activities of large apartment owners on Latvia's rental market may reduce the rent and thus the rental yield; however, assuming that the increase in the household income will be relatively slow and the credit standards of the credit institutions will remain unchanged, the demand for rental housing could continue to expand in the near future.

Chart 1.3

GROSS RENTAL YIELD AND WEIGHTED AVERAGE INTEREST RATE ON LOANS TO HOUSEHOLDS FOR HOUSE PURCHASE
(%)



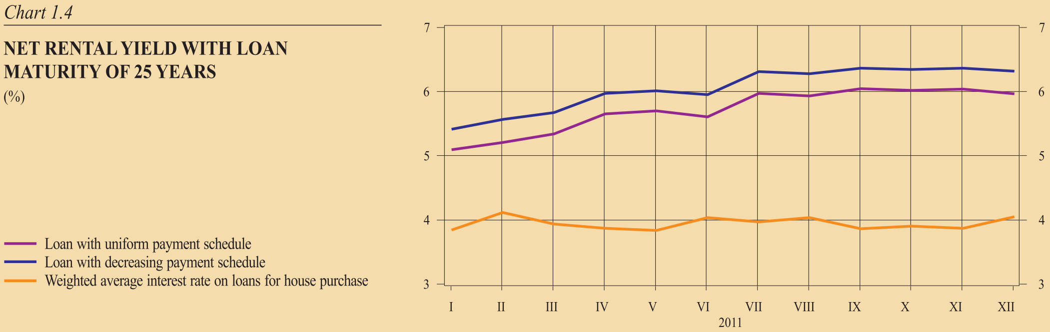
On the commercial real estate rental market, an expansion of the retail trade contributed to a rapid decrease in the number of unrented trading premises and an increase in rent. At the same time, the rent for office premises has stabilised. Foreign investors' interest in purchasing commercial real estate with the aim of renting it was also observed on the commercial real estate market.

[8] The gross rental yield reflects the income of an apartment owner if the apartment is purchased and let out. Gross yield (per annum) = (average rent per square meter x 12 months) / (average selling price per square meter) x 100.
[9] Net rental yield indicates the income of an apartment owner if the apartment is purchased, a loan maturing in 25 years is taken and the purchased apartment is let out. Net yield (per annum) = (average rent per square meter x average apartment space x 12 months x loan maturity in years – aggregate interest rate on credit) / (average selling or market price of apartment x loan maturity in years) x 100.

Chart 1.4

NET RENTAL YIELD WITH LOAN MATURITY OF 25 YEARS

(%)



Note: The calculation of yields is based on the average rental price per square meter of standard apartments in Riga housing estates quoted in MG Media Ltd. internet catalogue Rent in Riga; the interest rate is the weighted average interest rate on loans in all currencies to private persons for house purchase.

2. DEVELOPMENTS IN THE CREDIT INSTITUTION SECTOR AND ITS FINANCIAL POSITION

The loan portfolio of credit institutions continued to shrink in 2011, yet with the domestic economic activity strengthening the demand for loans started to recover slowly. Credit institutions also eased their credit standards in net terms in comparison with the previous years, which, inter alia, was supported by a gradual improvement in the quality of the loan portfolio of non-financial corporations. Nevertheless, the bank loans past due remained significant. This is a factor dampening the recovery of both lending and demand for loans. The most significant risk for the credit institutions is associated with a potential deterioration of the loan quality under the circumstances of a slower economic growth in Latvia. Restructured loans are a source of particular vulnerability as the credit institutions' exposure to them remains high. The capitalisation level of credit institutions increased considerably and their capacity to absorb potential future shocks remained high. The loan to deposit ratio of credit institutions continued to shrink and, with the funding inflows from parent banks contracting, the role of deposits in the financing structure of the credit institution sector increased.

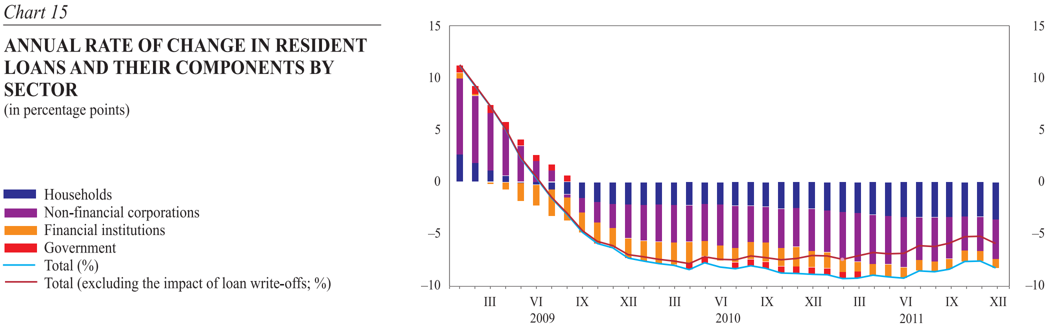
2.1 Loan developments and quality

The domestic loan portfolio of credit institutions continued to shrink in 2011 pointing to the sustainable nature of the ongoing deleveraging. Resident loans decreased by 8.3%, at a slightly slower rate than in 2010. Without taking into account the impact of written-off loans, the annual rate of decline in loans stood at 5.9% at the end of December. The contribution of household loans to the shrinking of the aggregate loan portfolio increased in the course of the year (see Chart 15).

Chart 15

ANNUAL RATE OF CHANGE IN RESIDENT LOANS AND THEIR COMPONENTS BY SECTOR

(in percentage points)

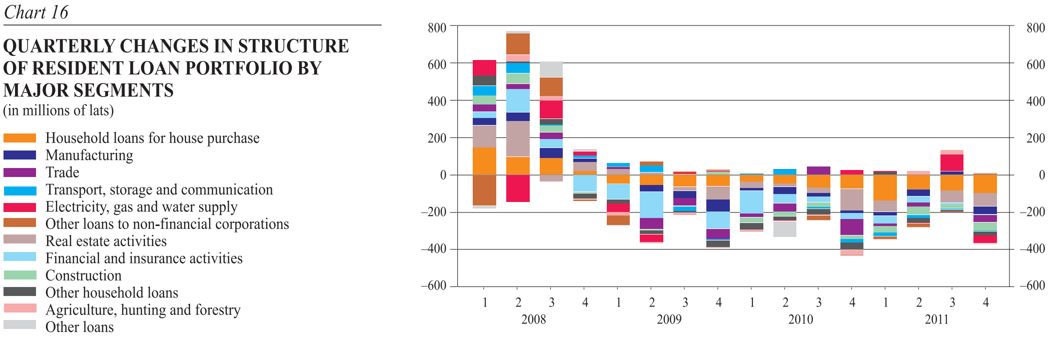


A major decrease in the first half of the year was followed by a quite negligible one in the third quarter in the case of the domestic loan portfolio, yet in December strong contraction resumed. The financial position of households did not improve significantly and the loan write-offs increased; therefore, the rate of decline of the household loan portfolio even accelerated slightly in 2011. An improvement in the domestic macrofinancial environment and better financial performance of non-financial corporations in the second half of the year contributed to the recovery of corporate lending. With new loans expanding, the outstanding amount of loans granted to non-financial corporations gradually increased from July to October. The shrinking of the loan portfolio in December can be explained by the fact that credit institutions were cleaning their balance sheets of unrecoverable debt, which is a process characterised by seasonality and a higher intensity at the close of a financial year, as well as by the sizeable loan repayments (including early repayments), also slightly seasonal in nature.

Lending growth remained negative almost in all major segments. Decrease of lending was observed in domestic demand orientated sectors and the household segment where the debt burden accumulated during the real estate boom was unsustainably high, but also in almost all exporting sectors (see Chart 16). An exception was the agricultural sector. Although it accounts for a minor share of the aggregate loan portfolio, several credit institutions increased their lending to this sector in 2011. Electricity supply sector also reported an increase in loans. This can be largely explained by the ample investment made in this sector.

Chart 16

QUARTERLY CHANGES IN STRUCTURE OF RESIDENT LOAN PORTFOLIO BY MAJOR SEGMENTS
(in millions of lats)



Despite a 7.2% decrease in the non-resident loan portfolio of credit institutions, several credit institutions remained active in granting loans to non-residents. As the demand for loans remains rather low in the domestic market, certain credit institutions have become more willing to offer lending services outside Latvia. The non-resident loan portfolio of some credit institutions expanded considerably in 2011. Lending to non-residents involves additional risks resulting in a need to pay special attention to the credit risk management practices in the particular credit institutions.

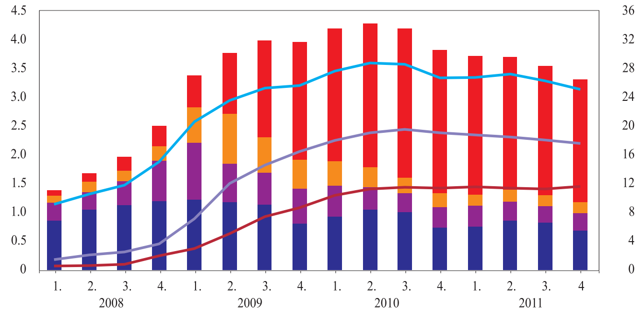
In the circumstances of an unstable external macroeconomic environment, the domestic loan portfolio will continue to shrink in 2012. The intensification of the sovereign debt crisis in the euro area and the downward revision of the economic growth prospects in Latvia's trade partner countries which will dampen Latvia's export growth as well as the further overall economic development will also decelerate the lending to non-financial corporations and households. Demand for loans which started to recover in 2011 could suffer a relapse again as slower growth will contribute to more cautious behaviour when undertaking new credit liabilities. Moreover, the risk of the credit institutions tightening their credit policies is also becoming stronger. According to the Bank of Latvia credit institutions lending survey, some signs of credit standard tightening were observed already in the second half of 2011 (see more detail in Box 2). The persistently high amount of unrecoverable loans on the credit institutions' balance sheets is a factor dampening both the rebound in lending and the recovery of the demand for loans. An additional risk that could act as a limiting factor to lending in 2012 is the growing costs of parent bank financing.

The quality of credit institution loans improved gradually in 2011. Loans past due over 90 days contracted; nevertheless, the decrease in the share of those loans was not that significant because of the shrinking of the aggregate loan portfolio. As at the end of December, loans past due over 90 days accounted for 17.5% {19.0%} of the aggregate loans of credit institutions. A positive development is that the loans past due less than 90 days remained relatively low (see Chart 17).

Chart 17

LOANS PAST DUE; SHARE OF LOANS PAST DUE AND LOAN LOSS PROVISIONS IN THE AGGREGATE LOAN PORTFOLIO OF CREDIT INSTITUTIONS
(in millions of lats)

- Loans past due up to 30 days
- Loans past due 31–90 days
- Loans past due 91–180 days
- Loans past due over 180 days
- Share of loans past due in loan portfolio (%; right-hand scale)
- Share of loans past due over 90 days in loan portfolio (%; right-hand scale)
- Share of provisions in aggregate loan portfolio of credit institutions (%; right-hand scale)



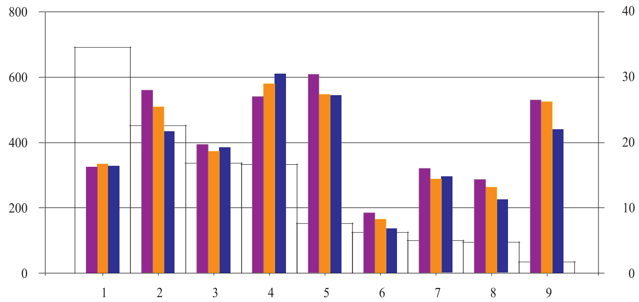
The quality of loans granted to non-financial corporations improved significantly (in addition, almost in all sectors of the economy); nevertheless, the quality of the household loan portfolio remained broadly unchanged. Although looking by sector the largest contribution to the shrinking of the loans past due over 90 days was made by real estate activities and construction, which could be mainly explained by the write-offs of unrecoverable loans, with the domestic macro-environment improving, exports rebounding and domestic demand gradually recovering, loans past due shrank significantly also in the sectors of manufacturing, trade and accommodation and food service activities (see Chart 18). As the creditworthiness of households remained poor, loans past due over 90 days in the household loan portfolio remained broadly unchanged, whereas the share of those loans in the aggregate household loans even increased as a result of growing delinquency in the segment of consumer and other credit.

Chart 18

LOANS PAST DUE OVER 90 DAYS AND THEIR SHARE BY MAJOR LOAN SEGMENTS
(in millions of lats)

1 Household loans for house purchase
2 Real estate activities
3 Loans to non-residents
4 Other household loans
5 Construction
6 Other sectors
7 Trade
8 Manufacturing
9 Accommodation and food service activities

- Loans past due over 90 days
- December 2010 (%; right-hand scale)
- June 2011 (%; right-hand scale)
- December 2011 (%; right-hand scale)



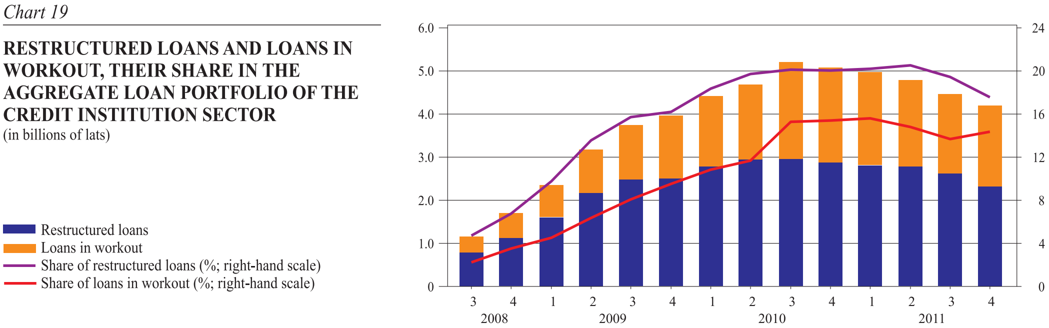
Overall, loan loss provisions remained broadly unchanged in 2012. Their size on the credit institution balance sheets slightly contracted, while the share in the aggregate loan portfolio expanded marginally. Nevertheless, there were significant differences across credit institutions in this respect. Most credit institutions cut down their previously accumulated provisions. With the macroeconomic conditions and the creditworthiness of borrowers improving, provisions were reduced in the loan categories where the provisions previously accumulated based on pessimistic assumptions turned out to be too large according to the most recent estimates. Loan write-offs also contributed to the decrease in provisions. Some credit institutions whose previously-accumulated provisions turned out to be insufficient continued active build-up of provisions.

Although according to the baseline scenario loans past due over 90 days are expected to continue shrinking slowly also in 2012, with their share in the aggregate loan portfolio remaining broadly unchanged, external risks are growing. Should they materialise, loan delinquency could increase again. According to the baseline scenario, weaker external demand will dampen Latvia's economic growth and a significant improvement in the borrowers' creditworthiness is not expected. Although the write-off of lost debt will gradually clean the balance sheets of credit institutions of persistently delinquent loans, loan delinquency could still grow in the export-oriented sectors which will be directly affected by the wakening external demand. As the share of loans granted to exporting sectors in the aggregate loan portfolio of credit institutions is relatively low, any potential increase in loans past due over 90 days would be limited under the baseline scenario. Nevertheless, lower exports could also reduce the contribution made by sectors which are not directly related to exports.

The loan restructuring process continued in 2011, with credit institutions granting further concessions to troubled borrowers; nevertheless, the restructured loans contracted. Nevertheless, these loans retained an impressive share in the aggregate loan portfolio of credit institutions at the end of the year: 17.5% {19.9%}. Mainly two factors were behind the contraction of the restructured loans. First, the cases when credit institutions received proof that a borrower had managed to restore creditworthiness had become more frequent[10]. Second, loan restructuring was not always successful and workout proceedings with regard to those borrowers who failed to restore their creditworthiness were started. The rise in the loans in workout observed in the fourth quarter can be explained by specifically the launching of the workout proceedings with regard to unrecoverable restructured loans (see Chart 19).

Chart 19

RESTRUCTURED LOANS AND LOANS IN WORKOUT, THEIR SHARE IN THE AGGREGATE LOAN PORTFOLIO OF THE CREDIT INSTITUTION SECTOR
(in billions of lats)



Note: The data on restructured loans and loans in workout up to June 2010 is not fully comparable with later observations due to improvements introduced in recording of those loans by the FCMC.

The persistently high share of restructured loans is an additional loan quality impairment risk factor and its probability is largely dependent on the economic development prospects. Considering that the provisions for restructured loans past due less than 90 days remained lower in comparison with other groups of troubled loans, any deterioration in the quality of those loans could trigger a need to build additional provisions (see more detail about stress test results in Section 2.5).

The balance sheet cleaning process in credit institutions remained slow and that is to some extent explained by the lengthy legal proceedings. Although the loans in workout and their share in the aggregate loan portfolio of credit institutions overall declined slightly in 2011, the share of those loans in the aggregate loan portfolio of credit institutions remained significant at the end of 2011 (14.2%). Almost all of those loans were long past due and they constituted 75% of the aggregate balance of loans past due over 90 days. Large amount of loans past due on the balance sheets of credit institutions, on the one hand, to a certain extent suppress the lending appetite of credit institutions, whereas, on the other hand, they also hinder the private sector development and dampen the demand for loans. The process of cleaning the balance sheets of unrecoverable household debts at the credit institutions is particularly slow; nevertheless, household loan write-offs could grow gradually in the medium-term, as following the amendments to the Insolvency Law effective since 1 November 2010 the number of insolvency petitions filed by physical persons has increased.

[10] According to the Regulations on Assets Quality Assessment and Provisioning of the FCMC, the borrower has performed all the payments in the amounts and time prescribed by the agreement for a period of at least one year, beginning with the date when the first payment is due according to the terms of modified loan agreement.

Box 2. Survey of credit institutions on lending to non-financial corporations and households

In 2011, the Bank of Latvia continued the conducting of surveys on lending by credit institutions to non-financial corporations and households. The survey results furnish aggregated information about the lending trends in 2011 and expectations of credit institutions for the first half of 2012. The most recent survey covered nine credit institutions representing more than 86% of aggregated loan portfolio of credit institutions to resident non-financial corporations and households.

Credit standards, terms and conditions

According to the survey results, the process of credit standard easing, which had been observed since 2010, halted in the second half of 2011 (see Charts 2.1 and 2.2). Credit standards of credit institutions remained broadly unchanged. The number of credit institutions reporting slightly easing credit standards contracted; moreover, some credit institutions even pointed to somewhat tightening credit standards. It is of interest to note that for the first time since 2009 not a single credit institution reported any easing of lending standards with respect of household loans for house purchase in the second half of 2011.

Chart 2.1

CHANGES IN CREDIT STANDARDS FOR NON-FINANCIAL CORPORATIONS
(net percentage of credit institutions reporting tightening of credit standards)

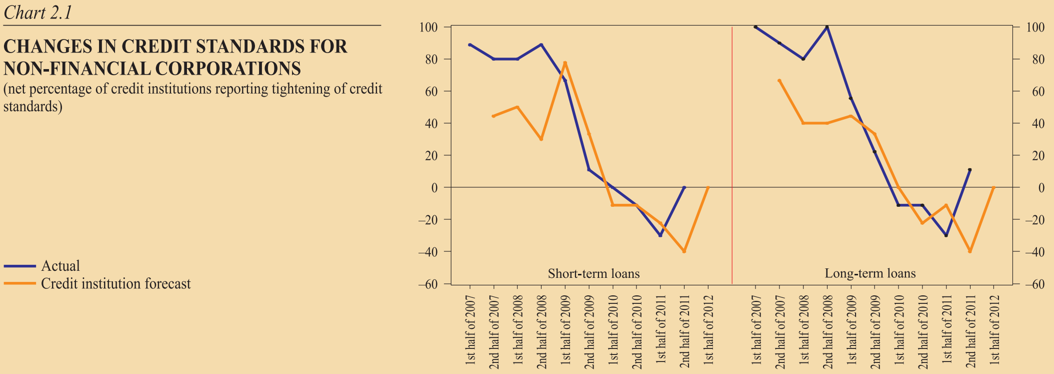
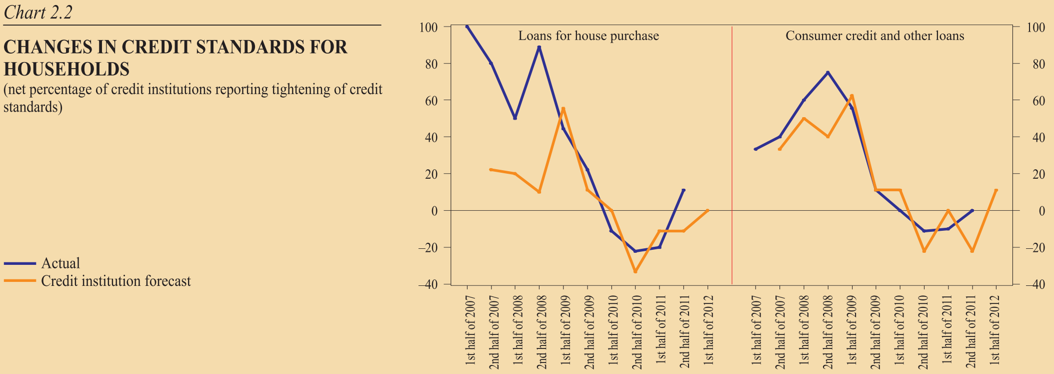


Chart 2.2

CHANGES IN CREDIT STANDARDS FOR HOUSEHOLDS
(net percentage of credit institutions reporting tightening of credit standards)



For the first half of 2012 overall, credit institutions have no plans for changing credit standards. Nevertheless, with a view to potential materialising of pessimistic scenario and rising costs related to credit institutions' capital position, some tightening of credit standards cannot be excluded.

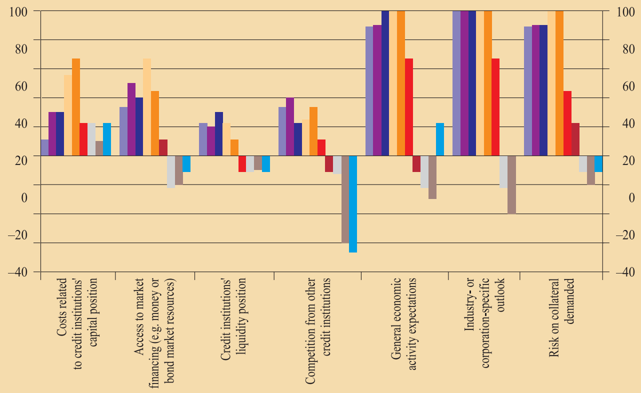
Oppositely directed factors affected the process of credit standard-setting for non-financial corporations in 2011. Tight competition among credit institutions was ranked as a primary factor promoting more favourable credit standards for non-financial corporations (see Chart 2.3). While tighter credit standards were mainly associated with costs related to credit institutions' capital position, more pessimistic expectations of general economic activity became a leading factor in the second half of 2011.

Chart 2.3

FACTORS CONTRIBUTING TO TIGHTENING OF CREDIT STANDARDS FOR NON-FINANCIAL CORPORATIONS

(net percentage of credit institutions reporting positive factor contributions)

- 1st half of 2007
- 2nd half of 2007
- 1st half of 2008
- 2nd half of 2008
- 1st half of 2009
- 2nd half of 2009
- 1st half of 2010
- 2nd half of 2010
- 1st half of 2011
- 2nd half of 2011



The survey participants noted in general that there were no factors to significantly affect the setting of standards for household house purchase, consumer credit and other credit. However, in the second half of 2011, some credit institutions reported tighter standards on loans to households for house purchase due to higher costs of funds and balance sheet restrictions (see Charts 2.4 and 2.5).

Chart 2.4

FACTORS CONTRIBUTING TO TIGHTENING OF CREDIT STANDARDS FOR HOUSEHOLDS

(net percentage of credit institutions reporting positive contribution of factors with regard to loans for house purchase)

- 1st half of 2007
- 2nd half of 2007
- 1st half of 2008
- 2nd half of 2008
- 1st half of 2009
- 2nd half of 2009
- 1st half of 2010
- 2nd half of 2010
- 1st half of 2011
- 2nd half of 2011

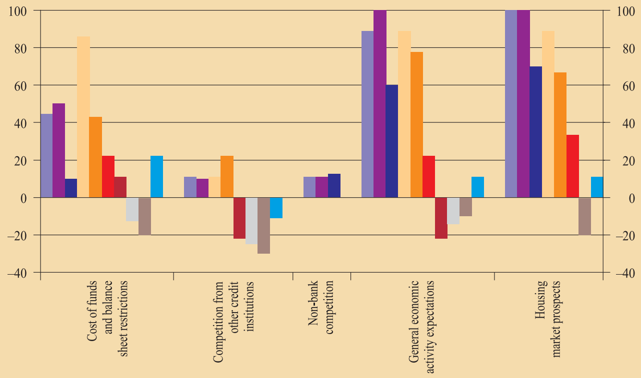
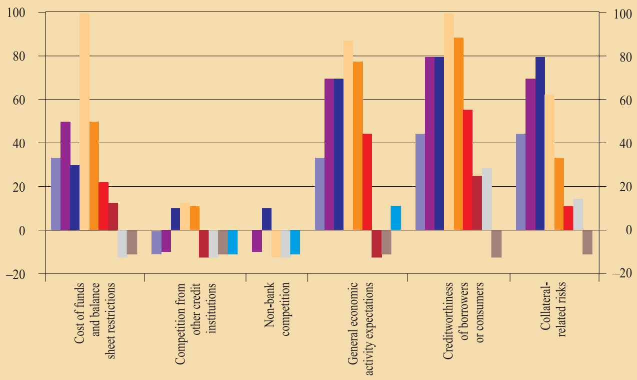


Chart 2.5

FACTORS CONTRIBUTING TO TIGHTENING CREDIT STANDARTS FOR LOANS TO HOUSEHOLDS

(net percentage of credit institutions reporting positive factors with regard to consumer credit and other loans)

- 1st half of 2007
- 2nd half of 2007
- 1st half of 2008
- 2nd half of 2008
- 1st half of 2009
- 2nd half of 2009
- 1st half of 2010
- 2nd half of 2010
- 1st half of 2011
- 2nd half of 2011



In the first half of 2011, the terms and conditions for borrowing from credit institutions were eased; nevertheless, with the uncertainty surrounding the EU economic growth prospects aggravating and costs of funds and balance sheet restrictions growing, some credit institutions raised margins on risky loans to non-financial corporations and also on ordinary and risky loans to households.

Loan demand

Credit institutions indicate that the loan demand from non-financial corporations continued to strengthen in 2011 (albeit at a more modest pace in the second half of the year than in the first one; see Chart 2.6), as there was a need to invest in fixed assets and provide financing for inventories and current assets. The demand from households for loans for house purchase rose as well. It was primarily driven by borrowers' stronger confidence in the improvement of their financial position (see Chart 2.7). The demand *for loans from households and non-financial corporations is expected to stabilise in the first half of 2012.*

Chart 2.6

CHANGES IN NON-FINANCIAL CORPORATIONS' DEMAND FOR LOANS OR CREDIT LINES

(net percentage of credit institutions reporting increased demand)

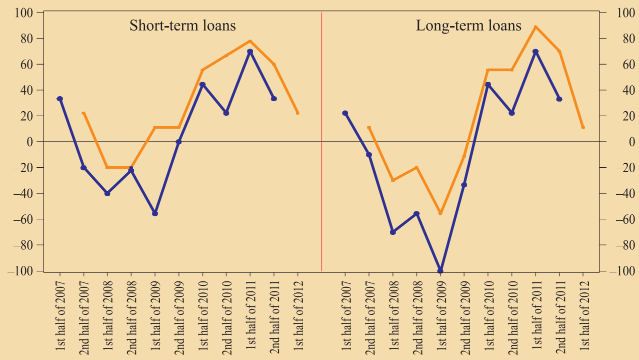
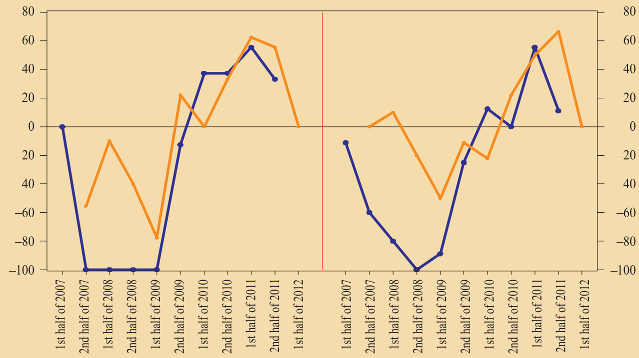


Chart 2.7

CHANGES IN HOUSEHOLD DEMAND FOR LOANS

(net percentage of credit institutions reporting increased demand)



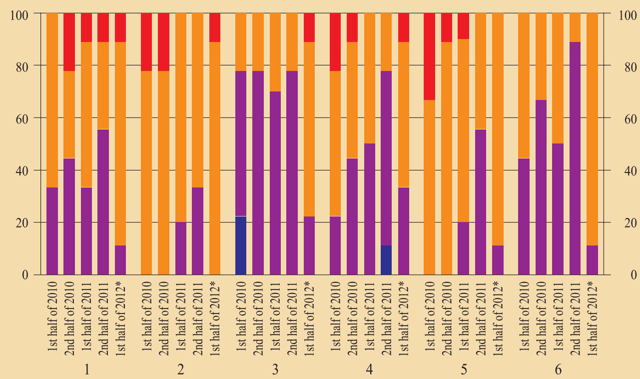
Financial position of borrowers

According to the assessment by credit institutions, the financial position of households and non-financial corporations of the leading economic sectors of Latvia in 2011 improved vis-à-vis other periods, yet the outlook for the first half of 2012 remains cautious. Amid concerns about Latvia's economic growth in an unstable external environment, most survey participants anticipate the financial position of households and non-financial corporations to remain unchanged (see Chart 2.8).

Chart 2.8

BREAKDOWN OF REPLIES REGARDING ASSESSMENT OF CHANGES IN FINANCIAL POSITION OF HOUSEHOLDS AND NON-FINANCIAL CORPORATIONS IN INDIVIDUAL SECTORS

(%)



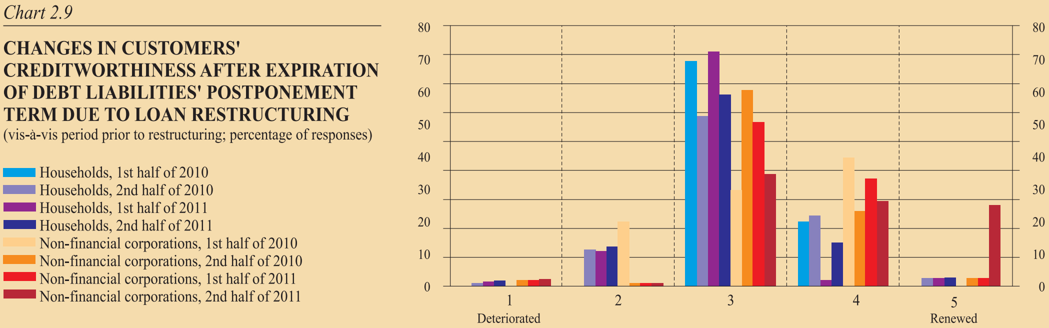
* Forecast.

Loan restructuring

The respondent answers suggest that creditworthiness of households after applied temporary postponement of debt liabilities in most cases is assessed as unchanged or slightly improving (see Chart 2.9). The credit institutions' assessment of creditworthiness of non-financial corporations after credit restructuring is positive. In the second half of 2011, some non-financial corporations even noted that after the expiration of credit restructuring term, their credit worthiness had been fully renewed.

Chart 2.9

CHANGES IN CUSTOMERS' CREDITWORTHINESS AFTER EXPIRATION OF DEBT LIABILITIES' POSTPONEMENT TERM DUE TO LOAN RESTRUCTURING
(vis-à-vis period prior to restructuring; percentage of responses)

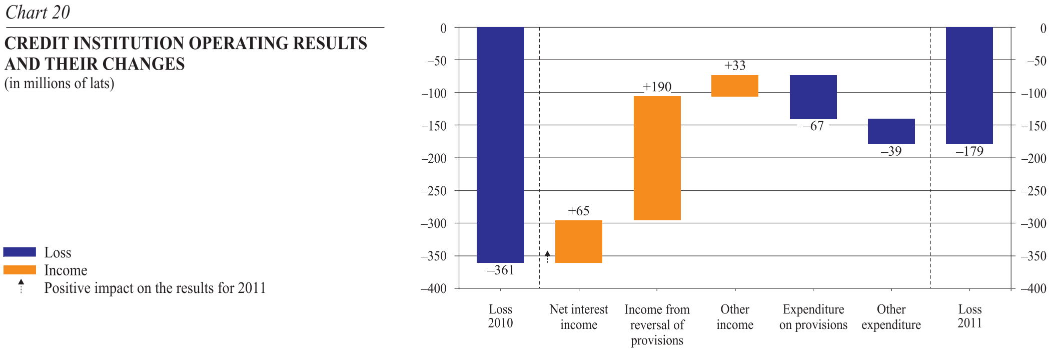


2.2 Profitability

Along with the positive macroeconomic changes in Latvia credit institution profit indicators also improved, indicating gradual recovery of credit institution performance. In 2011, total credit institution losses amounted to 178.7 million lats (360.7 million lats in 2010; see Chart 20). Most of the above losses are related to the JSC *Latvijas Krājbanka* (205.9 million lats) where encumbrance of the credit institution's funds in favour of third persons was identified and whose operation was suspended, as well as to the JSC *Parex banka* (70.3 million lats) which no longer fully performs the functions of a credit institution. Excluding the losses of both the above credit institutions, the profit of other credit institutions amounted to 97.5 million lats.

Chart 20

CREDIT INSTITUTION OPERATING RESULTS AND THEIR CHANGES
(in millions of lats)

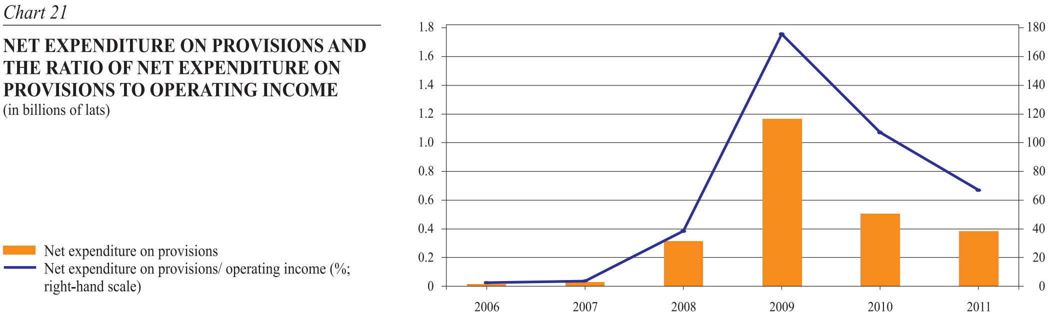


The consolidated operating results of credit institutions did not differ significantly in comparison with the nonconsolidated data. In 2011, total credit institution consolidated losses amounted to 189.1 million lats (353.9 million lats in 2010).

Expenditure on loan loss provisions, the main cause of losses in the last couple of years, still remained high at 794.0 million lats (727.1 million lats in 2010). At the same time income from reversal of provisions surged substantially to 411.1 million lats in 2011 (up from 221.4 million lats in 2010). For some credit institutions income from reversal of provisions even exceeded their expenditure on provisions. Hence both the absolute amount of net expenditure on loan loss provisions and their relative ratio to operating income declined (see Chart 21).

Chart 21

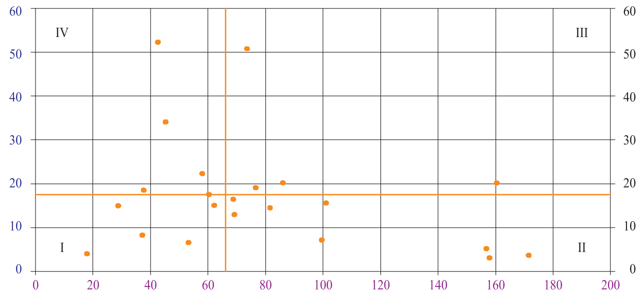
NET EXPENDITURE ON PROVISIONS AND THE RATIO OF NET EXPENDITURE ON PROVISIONS TO OPERATING INCOME
(in billions of lats)



Provision building by credit institutions was not homogenous. Chart 22 shows the quality of the credit institution loan portfolio and the dispersion of the provisioning ratios. The share of loans past due over 90 days in the loan portfolio was chosen to measure the loan portfolio quality. The provisioning ratio is calculated as a ratio of provisions to the loans past due over 90 days. The chart does not comprise data of two credit institutions as they have no loans past due over 90 days and hence their indicators differ substantially from those of other credit institutions. The division in quadrants has been based on the weighted average data. In comparison with average data, the dispersion of indicators is relatively high suggesting heterogeneity of the actual provisioning ratios. Over 41% of the credit institution loan portfolio are located in Quadrant II with a high provisioning ratio and low share of loans past due in the loan portfolio. In Quadrant IV representing low provisioning ratio and high share of loans past due in the loan portfolio no credit institutions with the largest amounts of granted loans are represented, and 14% of the credit institution loan portfolio are located there.

Chart 22

CREDIT INSTITUTION LOAN PORTFOLIO QUALITY AND PROVISIONING RATIOS
(%)



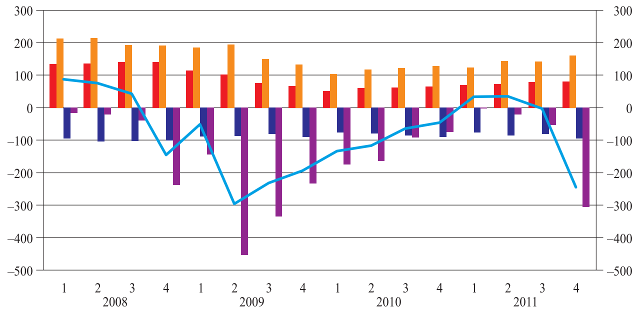
With credit institution losses decreasing, their efficiency ratios improved, though still remaining in the negative territory, e.g. ROE was –11.2% {–20.4%} and ROA stood at –0.9% {–1.6%}.

Most credit institutions earned profit. Overall, 16 credit institutions ended the year with profit. Their total profit amounted to 197.5 million lats and their assets accounted for 73% of total credit institution assets.

As regards credit institution quarterly profitability indicators, the first two quarters of 2011 saw better results (see Chart 23) when credit institutions reported an overall profit as well. As expenditure on provisions grew in several of them, credit institutions posted an overall loss in the second half of the year. The above trend was particularly pronounced in the fourth quarter when the insolvency of the JSC *Latvijas Krājbanka* affected the credit institution indicators. Net interest income and operating income gradually increased over the year.

Chart 23

SELECTED INCOME AND EXPENDITURE ITEMS: QUARTERLY DEVELOPMENTS
(in millions of lats)



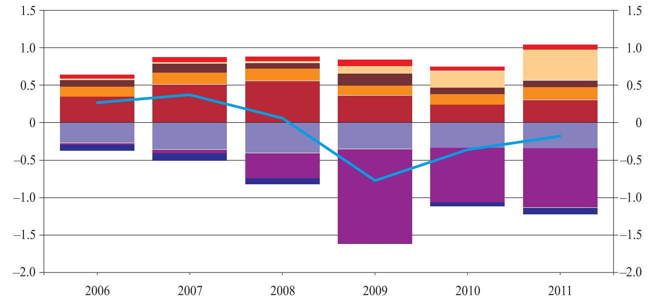
In 2011 the operating income was 571.0 million lats, having expanded in comparison with 2010 but still remaining below the levels recorded in 2009. Net interest income, the most sizeable component of the operating income, had grown year-on-year. Although interest income of credit institutions shrank in comparison with 2010, a more pronounced decline in interest expenditure resulted in a 27% rise in net interest income. Net interest income accounted for slightly more than a half of the operating income. Lower interest income resulted from the low interest rates on loans, the contracting loan portfolio, and the persistently high amount of loans past due, while a more pronounced fall in interest expenditure was recorded on account of a decrease in liabilities to MFIs and interest rates on deposits.

Net commissions and fees, the second most important income component, continued to expand throughout the year. In 2011 income from commissions and fees moved up by 11% whereas expenses related to commissions and fees shrank by 4%. The share of net income from commissions and fees still accounted for approximately 30% in the operating income. Of the credit institution operating income, slightly more than a half was contributed by net interest income; approximately one third resulted from net commissions and fees, 16% from income from trades and revaluation of financial instruments, and a very small part – by dividend income.

Operating income exceeded operating costs (see Chart 24); nevertheless, despite its increase it was not sufficient to cover the net expenditure on building provisions as well. In 2011 the operating costs increased somewhat, following a decline observed for two years.

Chart 24

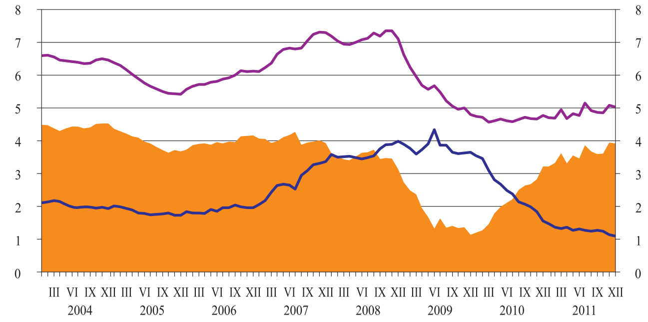
INCOME AND EXPENDITURE BREAKDOWN
(in billions of lats)



Lending and deposit rate spreads (see Chart 25) widened over the year, reaching 4 percentage points and having a positive effect on credit institution profitability. Currently interest rates on loans granted and deposits received are at a historic low.

Chart 25

DEVELOPMENTS OF LENDING RATES, DEPOSIT RATES AND THE OVERALL MARGIN ON TRANSACTIONS WITH RESIDENT NON-MFIs
(%)



According to forecasts, credit institutions will operate with profit overall in 2012. The levels of profit could be positively affected by the relatively wide lending and deposit rate spreads, stabilisation of the share of loans past due in the loan portfolio, a fall in expenditure on provisions for non-performing loans, and cost optimisation measures taken by credit institutions. A further loan portfolio decrease, the planned doubling of the financial stability duty, and raising of the credit institution contributions to the Deposit Guarantee Fund will have a negative effect on the levels of profit.

2.3 Capitalisation

In 2011, the credit institution CAR increased considerably, strengthening their ability to absorb the potential future shocks. At the end of 2011 CAR and Tier I ratio stood at 17.4%[11] and 14.2% respectively (see Chart 26 and Table 1), exceeding the historic highs of CAR observed so far. The capital base of credit institutions was strengthened by several credit

[11] When analysing changes in credit institution capitalisation ratios, the JSC *Latvijas Krājbanka* and JSC *Parex banka* data have been included in the indicators for 2010, but have not been included in those for 2011.

institutions earning profit again, as well as measures taken by some credit institutions to increase their capital. The credit institution CAR is expected to remain high also in 2012, contributed by the incorporation of the profit for 2011 into the capital base, the forecast overall profit of credit institutions in 2012, the measures taken by some credit institutions to increase their capital, and the persistence of the declining trend of RWA.

Chart 26

CAR DEVELOPMENTS
(%)

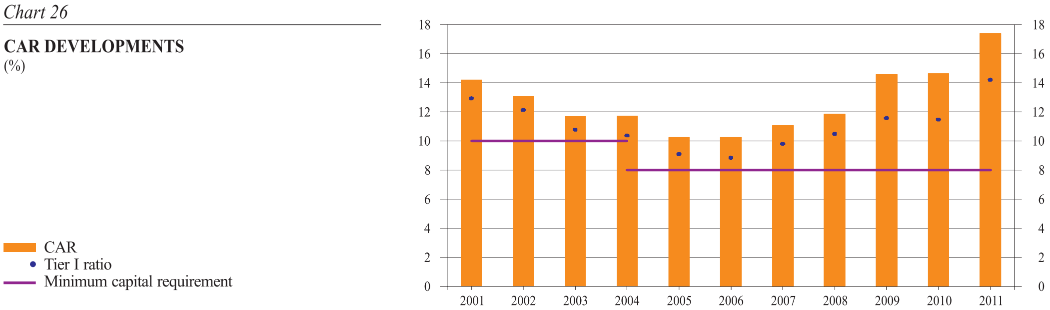


Table 1

OWN FUNDS OF BANKS, CAPITAL REQUIREMENT AND CAR
(at end of period; in millions of lats)

	2010	2011	Year-on-year changes (%)
Own funds	1 925.1	1 906.9	–0.9
Tier 1 capital	1 538.6	1 578.0	2.6
Paid-up share capital	1 887.2	1 630.5	–13.6
Capital requirement	1 052.0	876.9	–16.6
Capital requirement for credit risk	948.8	783.4	–17.4
Capital requirement for position, foreign exchange and commodities risks	14.6	10.7	–26.7
Capital requirement for operational risk	88.6	82.8	–6.5
CAR (%)	14.6	17.4	–
Tier 1 ratio (%)	11.5	14.2	–

The total amount of credit institution own funds remained broadly unchanged in 2011, standing at 1.9 billions of lats at the end of the year. Own funds of the JSC *Latvijas Krājbanka* (as of November 2011) and the JSC *Parex banka* (as of July 2011) are no longer included in the overall own funds. The own funds of the above credit institutions totalled 141.7 million lats at the end of 2010.

The paid-up share capital of credit institutions amounted to 1 630.5 million lats at the end of 2011. The share capital accounted for 85% of own funds and still remained the main source of the credit institution own funds ensuring a high overall quality of the credit institution capital.

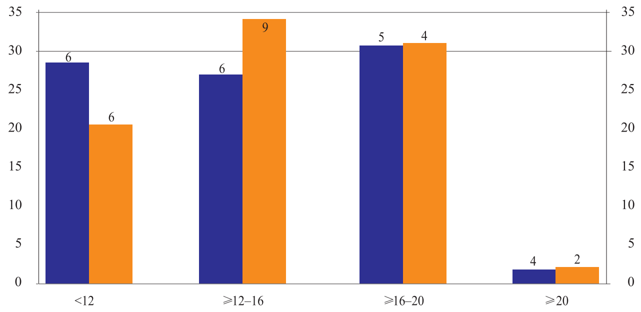
In 2011 the overall amount of credit institution capital increases moderated in comparison with the previous two years. Over the year, 11 credit institutions expanded their capital by 182.4 million lats, including an increase of 29.8 million lats, 104.2 million lats and 48.4 million lats in the paid-up share capital, reserve capital, and subordinated capital respectively. Several credit institutions reported on their plans to increase their capital in 2012.

The downward trend observed in the amount of the credit institution capital requirements in recent years persisted, mostly resulting from lowering the capital requirement for credit risk exposure on account of the contracting loan portfolio. Requirements addressing other risks were relatively insignificant, with their total amount contributing 10.7% to the total capital requirement.

The range of the CAR remained quite broad. The share of the credit institutions with their CAR exceeding 20% increased considerably (see Chart 27); at the same time the share of those with their CAR below 12% shrank considerably.

Chart 27

NUMBER OF CREDIT INSTITUTIONS AND THEIR SHARE IN CREDIT INSTITUTIONS ASSETS BROKEN DOWN BY CAR
(in billions of lats)



2010
2011

Box 3. The implementation of CRD IV and capital requirements

The Capital Requirements Directive and Capital Requirements Regulation (draft EU legislation package whereby Basel III, the international financial sector supervision standard developed by the Basel Banking Supervision Committee, will be introduced; hereinafter, CRD IV) provides for higher requirements for own funds quality and quantity, gradually introducing several new CARs in 2013–2019, and higher requirements for CAR levels, at the same time stipulating an opportunity for Member States to define higher requirements for CAR without a transitional period, i.e. from 1 January 2013.

In order to strengthen confidence in credit institutions, several EU countries are considering a possibility of introducing the CRD IV capital adequacy requirements without a period of their gradual introduction. Some EU countries have announced that they are planning to define higher capital adequacy requirements than CRD IV, e.g. Sweden intends to set higher capital requirements for Common Equity Tier I ratio than stipulated in CRD IV for its four major credit institutions (Handelsbanken, Nordea, SEB and Swedbank), i.e. 10% by 1 January 2013 (3.5% in CRD IV) and 12% by 1 January 2015 (4.5% in CRD IV).

In view of the sovereign debt problems in the euro area countries, on 8 December 2011 EBA published recommendations stipulating a requirement for the EU major credit institutions at the consolidation group level (a group of 71 credit institutions as per the list) to build temporary capital buffers to reach the Common Equity Tier I ratio of 9% of RWA by 30 June 2012, implying that the credit institutions included in the EBA list must actually comply with the capital requirements exceeding those stipulated in CRD IV at the end of the transitional period. The temporary capital buffers are intended for covering exposures towards the central, regional and local governments of the EEA countries and are computed by valuating the securities issued by the above EEA governments at their market value on 30 September 2011. The above EBA recommendation is not directly binding on any Latvian credit institution; however, it is indirectly binding on some of them where the recommendation is binding on their parent banks at consolidation level, e.g. JSC Swedbank, JSC UniCredit Bank, JSC DNB banka*, and JSC* SEB banka*. The parent banks of largest Latvian credit institutions are well-capitalised and they do not need to attract additional capital to ensure compliance with the EBA recommendation. However, the own funds of several credit institutions listed on the EBA list were not sufficient for complying with the requirements of the recommendation. In view of the limited opportunities or high costs of attracting capital in the financial markets, concern surfaced that these credit institutions might comply with the requirements by reducing their assets, inter alia loans, rather than by strengthening their capital base, and that could negatively affect the real economy. Supervisory authorities paid particular attention to this aspect when reviewing the credit institution recapitalisation plans.*

On the basis of the credit institution report data, the FCMC believes that most of Latvian credit institutions are ready for the introduction of CARs in compliance with CRD IV requirements already now and do not require a period of gradual introduction.

Tier 1 ratio, used in Latvia and equivalent to Common Equity Tier 1 ratio in line with CRD IV, averaged 14.20% in the credit institution sector (excluding the JSC Parex banka *and JSC* Latvijas Krājbanka *data) on 31 December 2011 (the lowest being 8.32%), and it considerably exceeds the currently valid indirectly stipulated regulatory requirement to maintain the above ratio at least at 4% and the CRD IV requirement to maintain Common Equity Tier 1 ratio and Tier 1 ratio at least at 4.5% and 6% respectively. Own funds capital adequacy ratio averaged 17.4% in the credit institution sector (excluding the JSC* Parex banka *and JSC* Latvijas Krājbanka *data) on 31 December 2011 (the lowest being 11.00%), and it considerably exceeds the currently valid regulatory requirement and CRD IV requirement to maintain the above ratio at least at 8%.*

For more accurate assessment of the credit institution readiness to introduce the CRD IV requirements, the FCMC has sent all of them a request to submit detailed information on the status as at 31 December 2011 in line with the CRD IV requirements, in order to be able to perform additional assessment of the impact of the CRD IV requirements based on a revised CRD IV text and own funds calculation algorithm.

When assessing a possibility to stipulate a higher CAR without a transitional period, it should be taken into account that an earlier introduction of a higher CAR:
– would ensure that the currently valid requirements are not eased and the current level of capital is not reduced (currently the Common Equity Tier 1 ratio has already been indirectly defined at 4% in Latvia (CRD IV stipulates a gradual raise of this ratio as of 1 January 2013, initially defining it at 3.5%);
– would facilitate maintaining a higher level of capital adequacy, strengthening the financial sector stability.

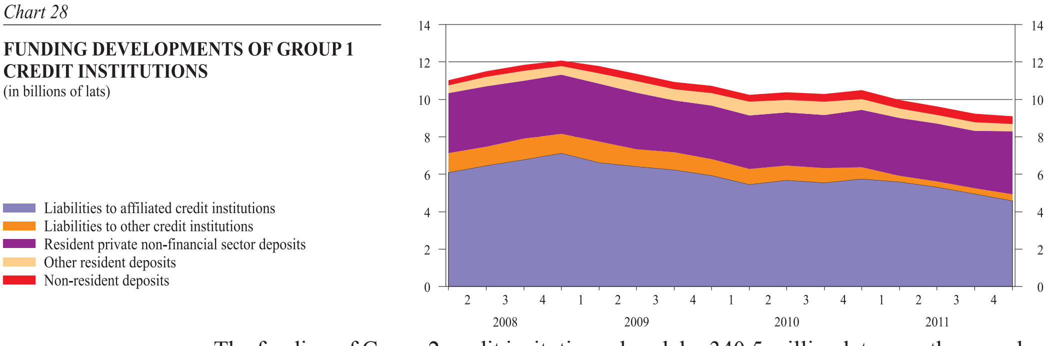
2.4 Funding and liquidity risks

When analysing credit institution funding risk, it is essential to distinguish between two credit institution groups differing by the composition of the funding sources. Group 1 receives a considerable share of funding from their parent banks[12] in Europe and from resident non-MFI private sector deposits (hereinafter, the resident deposits) that are invested in the national economy. Group 2 comprises other credit institutions mostly servicing non-resident customers, and state-owned credit institutions.

In 2011 the funding received by Group 1 continued on a downward trend, falling by 1 394.3 million lats over the year (see Chart 28). It mostly resulted from the contracting funding from parent banks, largely on account of a considerable decrease in the loan portfolio as large investment opportunities still remain limited in Latvia. Such funding outflows were partly offset by an increase in resident deposits (300 million lats in 2011). Although the funding received from parent banks still accounted for a half of the total funds attracted by this group of credit institutions, the role of deposits in their financing slowly increased. The loan-to-deposit ratio in the credit institutions of this group declined by 24.7 percentage points (to 218.2%) during the year.

Chart 28

FUNDING DEVELOPMENTS OF GROUP 1 CREDIT INSTITUTIONS
(in billions of lats)



The funding of Group 2 credit insitutions shrank by 340.5 million lats over the year due to repayments of the Treasury deposits and syndicated loans amounting to 788.1 million

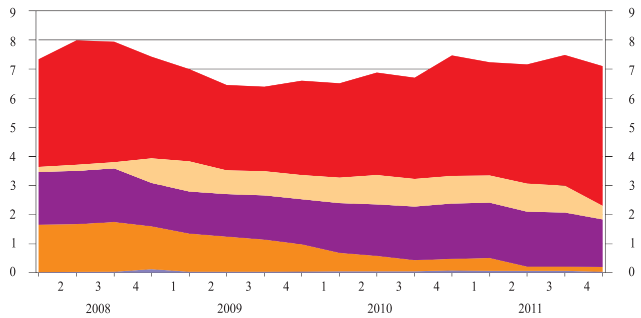
[12] Funding received from parent banks exceeds 10% of the credit institution's assets.

lats (see Chart 29). Deposits was the sole significant source of funding of these credit insitutions as access to foreign financial markets still remain limited. Overall, the funding structure of these credit insitutions (except those owned by the state) was increasingly dominated by non-resident deposits that accounted for two thirds of the credit institution total funding. The accelerated growth of non-resident deposits in 2011 was partly driven by the unstable situation in some South European countries where historically the share of non-resident deposits has been significant. Of Group 2 credit institutions, significant risk persisted for those largely financing their loan portfolios with short-term deposits; nevertheless, a considerable part of them recorded a decrease in their loan portfolios thus reducing the funding risk.

Chart 29

FUNDING DEVELOPMENTS OF GROUP 2 CREDIT INSTITUTIONS
(in billions of lats)

Liabilities to affiliated credit institutions
Liabilities to other credit institutions
Resident private non-financial sector deposits
Other resident deposits
Non-resident deposits

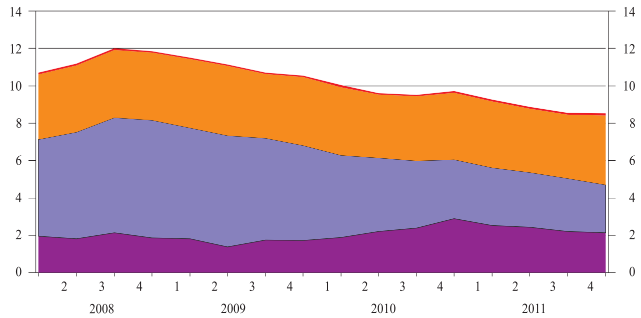


Short-term funding continued on an upward trend in the funding sources of both credit insitutions groups. For Group 1 of credit institutions, it partly resulted from a decrease in long-term liabilities to MFIs (mostly to parent banks; see Chart 30) which started in previous years. Over the year, the share of such liabilities with a residual maturity of over 1 year in the balance sheets of credit institutions of the above group narrowed by 2.2 percentage points as parent banks allot funding for a shorter term and in smaller amounts when refinancing their subsidiaries. Nevertheless, the share of long-term financing received from parent banks (31.2%) in the overall credit institution funding remained substantial.

Chart 30

FUNDING PROFILE OF GROUP 1 CREDIT INSTITUTIONS BY RESIDUAL MATURITY
(in billions of lats)

Liabilities to credit institutions with maturity of up to 1 year
Liabilities to credit institutions with maturity of over 1 year
Private non-financial sector deposits with maturity of up to 1 year
Private non-financial sector deposits with maturity of over 1 year



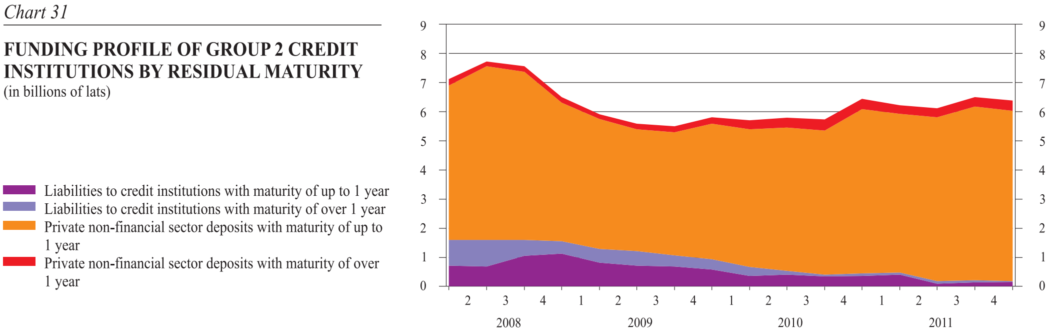
Deposits (mostly by non-residents) with maturity of up to one year still dominated the funding received by Group 2 of credit institutions (see Chart 31), accounting for over 90% of it. The maturity of the funding attracted by state-owned credit institutions was relatively longer – 39.5% of the financing were demand deposits while for the other credit institutions of Group 2 the same deposits accounted for 70.5% of the total attracted funding, most of which is placed abroad and has no close links with the domestic economy.

Short-term financing increased; however, as the amount of liquid assets was high, compliance with the liquidity requirements stipulated by the FCMC[13] was also high (63.9%; see Chart 32). The liquidity of major credit institutions of Group 1 shrank as the liquid assets contracted along with the amount of assets of these credit institutions

[13] Liquid assets (vault cash; claims on the Bank of Latvia and solvent credit institutions whose residual maturity does not exceed 30 days, and deposits with other maturity, if a withdrawal of deposits prior to the maturity has been stipulated in the agreement; investment in financial instruments, if their market is permanent and unrestricted) must not be less than 30% of banks' total current liabilities with residual maturity under 30 days.

Chart 31

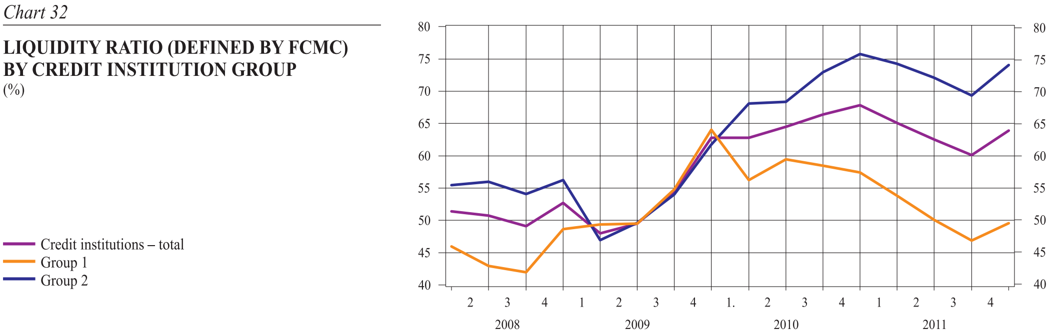
FUNDING PROFILE OF GROUP 2 CREDIT INSTITUTIONS BY RESIDUAL MATURITY
(in billions of lats)



while the short-term liabilities remained broadly unchanged. Nevertheless, liquidity in the above credit institutions was always much higher in comparison with the pre-crisis level. A very high level of liquidity persisted also in credit institutions of Group 2, and they placed their excess liquidity mostly in claims against MFIs and in the securities portfolio, investing mostly in credit institutions in Sweden, Germany and Austria, and in debt securities issued in Latvia, the US, Germany and the Netherlands. Investments in securities portfolios remained at low level in both groups of credit institutions (7.2% of total credit institution assets).

Chart 32

LIQUIDITY RATIO (DEFINED BY FCMC) BY CREDIT INSTITUTION GROUP
(%)



The liquidity stress tests, conducted by the Bank of Latvia with the purpose of evaluating the significance of the potential consequences of financial outflows, suggest that with the credit institution liquid assets[14] remaining at a high level, the credit institution resilience to the shock of financial outflows[15] has improved. In order to assess the potential effect of the funding outflow on the credit institution ability to fulfil their liabilities, stress tests were conducted for all credit institutions in relation with three potential shocks:
1) outflows of resident deposits – the stress tests assess the resilience of credit institutions of Group 1 to swift deposit outflows as the credit institutions of this group mostly receive resident deposits;
2) outflows of non-resident deposits – the stress tests assess the resilience of credit institutions of Group 2 to swift deposit outflows as the credit institutions of this group account for a notable share of non-resident deposits;
3) outflows of financing with a maturity of up to three months (both deposits and the MFI financing) – stress tests of all credit institutions enabling the assessment of their resilience to a rapid short-term financing outflows as they evaluate credit institution resilience to both internal and external financial turbulences.

The assessment of the impact of the third stress test scenario is of particular importance as funding with a maturity of up to three months accounts for 60.8% of the total credit institution financing comprising a substantial share of short-term non-resident deposits received by Group 2 of credit institutions that depend on changes in the global financial environment.

[14] The liquid assets defined in the calculation of the FCMC liquidity ratio.
[15] The results of the liquidity stress tests indicate the tolerance of the credit institutions to the outflows of non-resident non-MFI deposits, resident non-MFI deposits and total (MFI and non-MFI) financing with the residual maturity of up to three months before their liquidity ratios reaching 0, subject to a condition that the credit institutions do not borrow additional funding to offset the funding outflows.

Overall, the capability to absorb such shock has improved over the year and credit institutions could survive an outflow of financing of 47% (see Charts 33 and 34) on account of narrowing of the share of such type of financing in part of the large and medium size credit institutions without a substantial reduction in the amount of liquid assets. In the event of an outflow of 50% of credit institution assets, merely two credit institutions accounting for 12% of Latvia's credit institution assets would fail to meet their obligations.

Chart 33

LIQUIDITY STRESS TEST RESULTS IN CASE OF OUTFLOWS OF FINANCING WITH MATURITY OF UP TO 3 MONTHS
(31.12.2011; number of credit institutions)

Illiquid credit institutions (lr<0%)
Solvent credit institutions non-compliant with the required lr (0%<lr<30%)
Credit institutions compliant with the required lr (lr>30%)
Illiquid credit institutions (20; 31.12.2010)
Illiquid credit institutions (20; 30.06.2011)

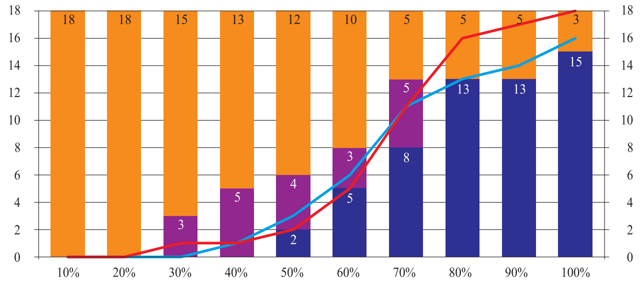
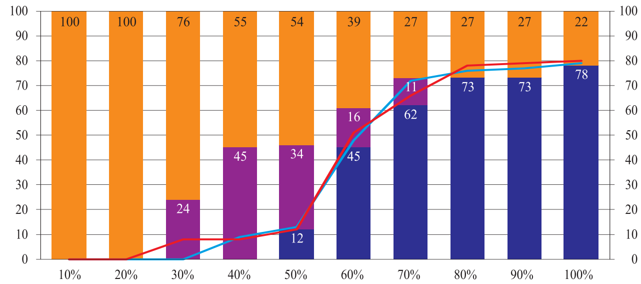


Chart 34

LIQUIDITY STRESS TEST RESULTS IN CASE OF OUTFLOWS OF FINANCING WITH MATURITY OF UP TO 3 MONTHS
(31.12.2011; % of total credit institutions assets)

Illiquid credit institutions (lr<0%)
Solvent credit institutions non-compliant with the required lr (0%<lr<30%)
Credit institutions compliant with the required lr (lr>30%)
Illiquid credit institutions (20; 31.12.2010)
Illiquid credit institutions (20; 30.06.2011)



The first and second stress test scenarios are mostly focused on credit institution resilience towards internal shocks. The results of the above stress tests suggest that all credit institutions would be able to pass the stress test even in the event of more than 40% of resident deposit or 50% of non-resident deposit outflows. Over the year this proportion has remained broadly unchanged. The historical data (for 2008 and 2009) also show that maximum amount of monthly outflows did not exceed 15% of total resident and non-resident deposits.

Results of liquidity stress tests suggest that the credit institution ability to absorb funding outflow shocks has remained high, mostly as a result of credit institution policies maintaining a high amount of liquid assets.

Box 4. Use of depositor protection mechanism

In November 2011, in connection with the suspension of the JSC Latvijas Krājbanka *operations, the depositor protection mechanism enshrined in the DGL was put to use for the first time. Natural and legal persons are entitled to receive the guaranteed compensations for all types of deposits in all currencies up to 100 000 euro (approximately 70 280 lats). As regards the suspension of the JSC* Latvijas Krājbanka *operations, 218 thousand depositors are entitled to receive the guaranteed compensations in the amount of 329 million lats; moreover, deposits of 99.8% of the credit institution's customers will be fully disbursed. By the end of the third quarter of 2011, 149.4 million lats had been accumulated in the DGF. Since the DGF did not have sufficient funds for the disbursement of the guaranteed compensations as set by the DGL to the customers of the JSC* Latvijas Krājbanka*, the unavailable funds in the amount of 185.5 million lats were borrowed from the Treasury: pursuant to Article 15.1 of the DGL, where the DGF does not have sufficient funds for disbursement of the guaranteed compensations, "the Ministry of Finance shall ensure availability of such payments from the government budget".*

Timely disbursement of the guaranteed deposits to the customers of the JSC Latvijas Krājbanka *had an essential role in ensuring financial stability during the domestic financial turbulence. Therefore the renewal of the DGF is an essential factor in promoting public confidence in credit institutions in Latvia and strengthen financial stability as well as maintain stable national fiscal environment. The main source of the reimbursement of DGF liabilities towards the Treasury and replenishment of DGF funds is related to the disposal of the JSC* Latvijas Krājbanka *assets as the DGF has the primary right of credit claims in the amount of the disbursed guaranteed compensations towards the credit institution, and credit institution regular contributions to the DGF. In 2011 the FCMC raised the ratio of contributions by credit institutions from 0.05% to 0.075% for one year.*

2.5 Market risk

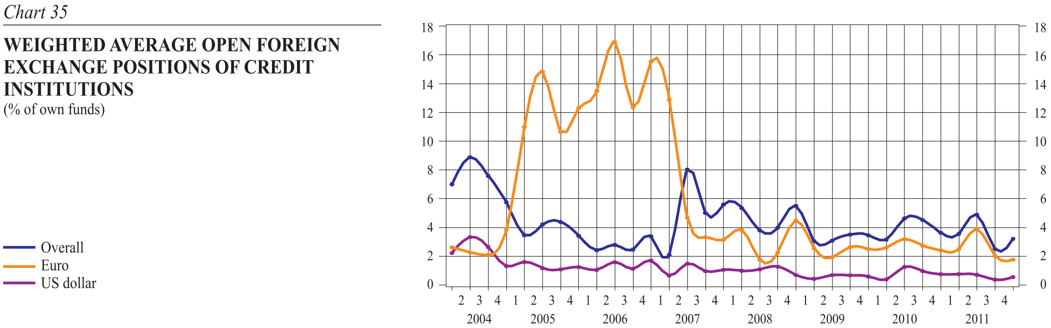
2.5.1 Foreign exchange risk of credit institutions

The attitude towards foreign exchange risks of credit institutions remained cautious also in 2011: the overall net open foreign exchange position characterising the foreign exchange risk of credit institutions decreased in comparison with the previous years, regardless of some minor volatility observed in the middle of 2011.

The overall net open foreign exchange position declined by 0.4 percentage point in 2011, amounting to 3.2% of the credit institutions' own funds at the end of 2011 as opposed to 3.6% at the end of 2010. In the recent years, the overall net open foreign exchange position of credit institutions was primarily influenced by changes in the open positions in euro and the US dollar; nevertheless, in the fourth quarter of 2011 the overall net open foreign exchange position increased on account of changes in the open positions of other currencies, including the Lithuanian litas and Danish krone (see Chart 35).

Chart 35

WEIGHTED AVERAGE OPEN FOREIGN EXCHANGE POSITIONS OF CREDIT INSTITUTIONS
(% of own funds)



In 2010, the weighted average open euro position remained broadly unchanged at about 2.5% of the credit institutions' own funds, whereas in 2011 it declined by 0.65 percentage points to stand at 1.77% at the end of the year.

The weighted average open US dollar position of credit institutions shrank by 0.2 percentage point in 2011, amounting to 0.56% of their own funds at the end of 2011.

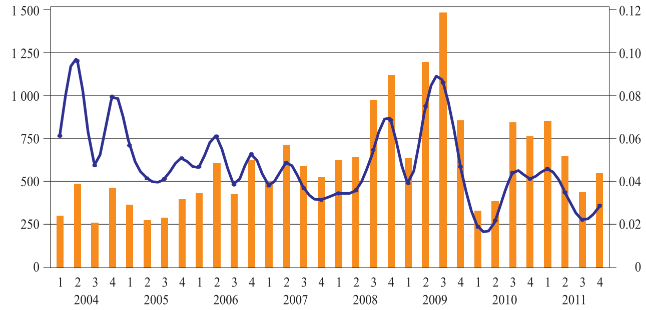
One of the quantitative analysis instruments for the foreign exchange risk is VaR measuring the minimum expected losses over a certain period of time with a given probability. Thus a 1% 10-day VaR from exchange rate fluctuations means that within the next 10 days there is only a 1% probability that losses arising from exchange rate fluctuations will exceed the VaR. The VaR estimated for 2011[16] shows that the potential minimum losses (1% 10-day VaR) have decreased both in monetary terms as well as relative to own funds (see Chart 36). At the end of 2010, 1% 10-day VaR amounted to 760.5 thousand lats or 0.04% of credit institutions' own funds, whereas at the end of 2011 it was 549.2 thousand lats or 0.03% of own funds.

[16] In this Report, VaR was obtained based on the open currency positions of individual credit institutions at the end of each quarter. Calculations use the historical daily exchange rate changes within one year prior to the VaR evaluation date (last day of the relevant quarter). Since repegging the lats to the euro, VaR calculations no longer include the euro component.

Chart 36

FOREIGN EXCHANGE RISK: 1% 10-DAY VaR FROM EXCHANGE RATE FLUCTUATIONS IN LATVIAN CREDIT INSTITUTIONS

In thousands of lats
% of own funds (right-hand scale)



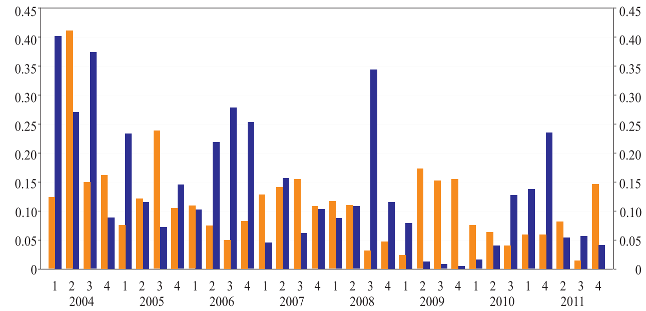
The US dollar is the second most important foreign currency on Latvian foreign exchange market. The sensitivity of credit institutions towards any potential US dollar exchange rate fluctuations increased at the end of 2011 in comparison with the end of 2010; nevertheless, the potential losses of the credit institutions, albeit higher, would not have exceeded 0.15% of own funds in case of the US dollar depreciating by 10% vis-à-vis the lats. The credit institutions' losses would not have exceeded 0.04% of own funds in case of the US dollar appreciating by 10% relative to the lats (see Chart 37).

Chart 37

SENSITIVITY OF LATVIAN CREDIT INSTITUTIONS TO THE US DOLLAR FLUCTUATIONS

(aggregate losses of the credit institution sector to aggregate total own funds;%)

US dollar depreciates by 10% against the lats
US dollar appreciates by 10% against the lats



According to the minimum capital requirement calculation, at the end of 2011 the ratio of the capital requirement for foreign exchange risk to the aggregate capital requirement of credit institutions was merely 0.5%, the same as in the previous year and three times lower than that of the overall position, whereas the ratio of the capital requirements for foreign exchange and commodities risks to the aggregate capital requirement of credit institutions was 1.5%.

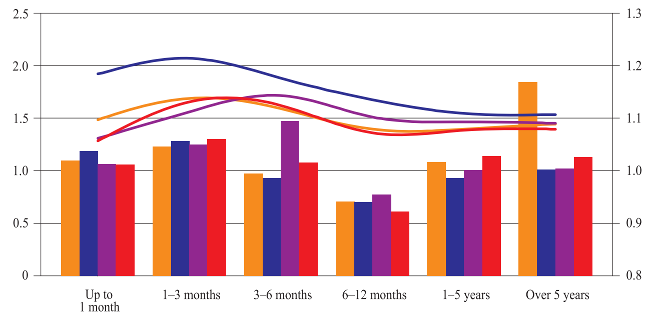
2.5.2 Interest rate risk of credit institutions

In 2011, the balance between RSA and RSL at Latvian credit institutions improved. The cumulative 1-year RSA to RSL ratio declined from 1.13 at the end of 2010 to 1.07 at the end of 2011 (see Chart 38), primarily on account of a 4.3% increase in RSL and (to a lesser extent) a 1.5% decrease in RSA within the given time-band.

Chart 38

RSA AND RSL RATIO OF LATVIAN CREDIT INSTITUTIONS

RSA / RSL
1st half of 2010
2nd half of 2010
1st half of 2011
2nd half of 2011
Cumulative RSA / RSL (right-hand scale)
1st half of 2010
2nd half of 2010
1st half of 2011
2nd half of 2011



An increase of the RSL within the time-band of up to one year was supported by a significant rise (1.1 billion lats) in the short off-balance-sheet positions that are sensitive to interest rate movements. Short off-balance sheet positions increased in all RSL time bands and particularly strongly within the time bands of up to one month (by 443.1

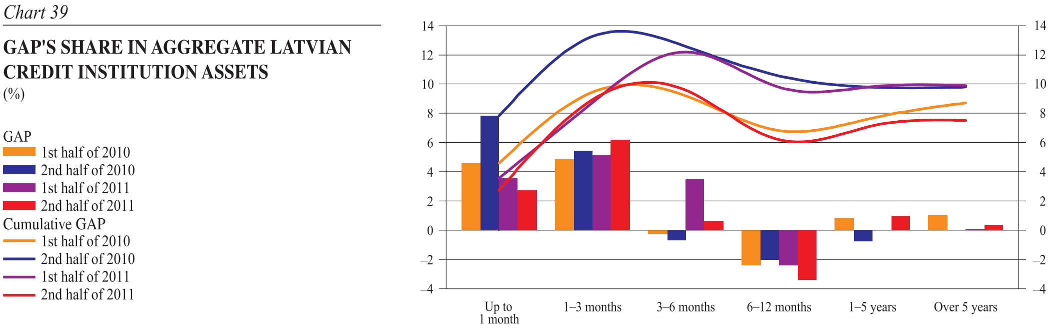
million lats) and 1–3 months (by 499.1 million lats). Within the RSL time band of up to one year, this rise in the short off-balance-sheet positions can be partly explained by an increase of 255.4 million lats in the short off-balance-sheet positions in the trading books of credit institutions, which are sensitive to the interest rate movements.

The decline in the RSA within the time band of up to one year, in turn, was negligible and masked opposite developments in asset positions. On the one hand, the credit institution portfolio contracted sharply, including loans outstanding, vault cash and deposits with the Bank of Latvia as well as claims on credit institutions and foreign central banks. On the other hand, the above decline in the credit portfolio was offset by a significant expansion of the long trading book positions and off-balance-sheet positions sensitive to interest rate movements.

Overall, GAP[17] suggested that the interest rate risk exposures of Latvian credit institutions had decreased in comparison with the previous year. The cumulative 1-year GAP relative to the assets of Latvian credit institutions contracted from 10.6% at the end of 2010 to 6.2% at the end of 2011 (see Chart 39). This was achieved on account of a sharp increase in the RSL of the respective time band and a decline in the RSA in the second half of 2011. In some time bands, the GAP relative to the assets of Latvian credit institutions ranged from –3.4% to 6.2% (from –2.0% to 7.8% in the previous year). Within the time band of up to one month, the GAP ratio declined mostly under the influence of the shrinking vault cash and deposits with the Bank of Latvia. Moreover, loans outstanding also contracted sharply in the credit institution portfolio within the same time band, whereas deposits increased. Claims on credit institutions and foreign central banks also shrank. Within the time band of 6 months to 1 year, the GAP contracted primarily on account of the previously-mentioned expansion of the short off-balance-sheet positions sensitive to interest rate movements, a rise in deposits as well as a decrease in the holdings of debt securities and other fixed income securities on the asset side.

Chart 39

GAP'S SHARE IN AGGREGATE LATVIAN CREDIT INSTITUTION ASSETS
(%)



According to the short-term sensitivity analysis results, the impact of potential interest rate movements on net annual interest income of Latvia's credit institutions[18] in 2011 would have been lower than at the end of the previous year and overall negligible. With

[17] The GAP of a pre-defined time-band is the difference between the RSA and RSL values within the specific time-band. The larger a particular credit institution's GAP, the higher its interest rate risk exposure. In the event of a positive GAP, the credit institution will incur losses from an interest rate decline, as the RSA exceed the RSL and, therefore, the credit institution's interest income will shrink more notably than the expenditure. In the event of a negative GAP, the credit institution will incur losses from a rise in interest rates, as the liabilities exceed the assets and, therefore, the credit institution's interest expenditure will grow more than the income.

[18] The impact on net annual interest income within each time-band is calculated by multiplying the time-band's GAP with the interest rate change and the ratio of this time-band characterising the part of the year when the GAP of this time-band will be active. For the purposes of calculating the ratio, it is assumed that repricing will take place in the middle of the time-band. For example, 3 to 6 month time-band ratio is calculated as follows: (12 – 0.5 x (3 + 6))/12 = 0.625. The overall impact on the profit for the year is the aggregate effect for the first four time-bands. As the calculations are based on the GAP method, they do not take into account the interest rate impact on the credit institution's economic value and are based on the structure of the credit institution's balance sheet as at the end of 2011.

interest rates increasing by 200 basis points[19] (i.e. by 2 percentage points), within the positive GAP time-bands (i.e. up to 1 month, 1–3 months and 3–6 months), the net interest income of Latvian credit institutions would have increased by 0.5%, 0.1% and 1.0% of the aggregate own funds of the credit institutions respectively. Within the negative GAP time-band of 6 months to 1 year, however, it would have decreased by 0.2% (see Chart 40). Thus, all GAP time-bands of up to 1 year combined, an interest rate increase by 200 basis points would have boosted the net annual interest income of credit institutions by 1.4% of the aggregate own funds of the credit institutions.

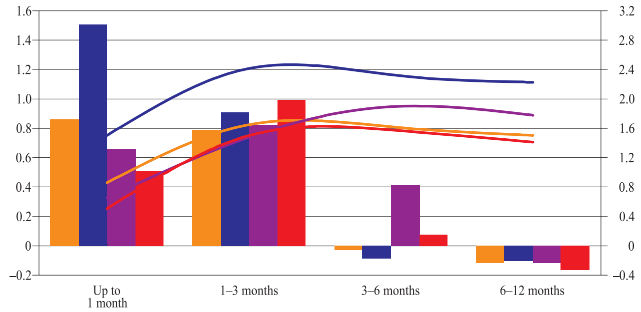
Chart 40

SHORT-TERM SENSITIVITY ANALYSIS: IMPACT OF INTEREST RATE INCREASE BY 200 BASIS POINTS ON THE ANNUAL NET INTEREST INCOME OF LATVIAN CREDIT INSTITUTIONS BY MATURITY

(% of own funds)

Impact
- 1st half of 2010
- 2nd half of 2010
- 1st half of 2011
- 2nd half of 2011

Cumulative impact
- 1st half of 2010
- 2nd half of 2010
- 1st half of 2011
- 2nd half of 2011



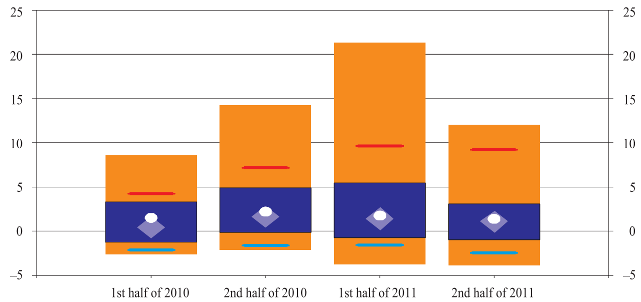
As a result of changes in the GAP structure, the range between the maximum potential net interest income and losses has narrowed for the Latvian credit institutions in 2011. For half of the credit institutions, the impact of a parallel increase in the interest rates by 200 basis points on the net annual interest income would have been from –1.0% to 3.1% of their own funds within the inter-quartile range (from –0.1% to 4.9% in the previous year; see Chart 41). Looking by credit institution, the maximum rise in the net annual interest income in case of the interest rate increasing by 200 basis points would have amounted to 12.1% of own funds (2.1 percentage points less than in the previous year), whereas the maximum fall would have been 3.8% (1.7 percentage points steeper than in the previous year). Should the scenario of declining money market rates materialise in 2012, given the GAP development tendencies of the Latvian credit institutions, there is a certain risk that several Latvian credit institutions might face a slight decline in the net annual interest income.

Chart 41

SHORT-TERM SENSITIVITY ANALYSIS: IMPACT OF INTEREST RATE INCREASE BY 200 BASIS POINTS ON THE ANNUAL NET INTEREST INCOME OF LATVIAN CREDIT INSTITUTIONS IN BREAKDOWN BY CREDIT INSTITUTIONS

(% of own funds)

- Minimum – maximum range
- Interquartile
- Median
- Weighted average
- 90th percentile
- 10th percentile



A sensitivity analysis based on the net annual interest income assesses the interest rate risk over a short-term horizon. For the purposes of evaluating the interest rate risk over longer horizons, a sensitivity analysis based on the economic value of a credit institution[20] is more appropriate, as it provides an idea about the effect of interest rate movements both on the credit institution's income as well as on the economic value of the credit institution's assets, liabilities and off-balance-sheet positions.

[19] EBA, following the recommendations of the Basel Committee on Banking Supervision, proposes to set the level of unexpected parallel shift of interest rates (parallel rate shock) at 200 basis points. (Sources: Principles for the Management and Supervision of Interest Rate Risk. Basel Committee on Banking Supervision. July 2004; Technical aspects of the management of interest rate risk arising from non-trading activities under the supervisory review process. Committee of European Banking Supervision. October 2006.) Such parameter value for the interest rate shock has currently also been introduced by the FCMC in the Regulations on the Management of Interest Rate Risk, Preparation of a Report on the Calculation of Economic Value Decline and of a Report on the Term Structure of Interest Rate Risk.

[20] A credit institution's economic value is the discounted value of the credit institution's expected future net cash flow generated by claims and liabilities that are both on and off the credit institution's balance sheet.

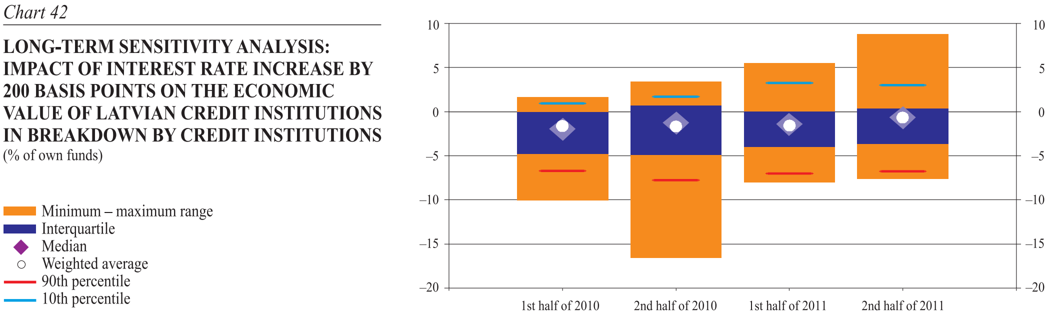
The results of an economic-values-based sensitivity analysis suggest that the effect of the interest rate risk on the economic value of credit institutions remains negligible also over the long-term horizon. Moreover, it has further decreased in course of the year. At the end of 2011, a decline in the economic value of Latvian credit institutions[21] resulting from sudden and unexpected interest rate shifts in the non-trading book would have reached about 0.6% of the aggregate credit institutions' own funds (1.7% in the previous year).

For half of the credit institutions, the changes in their economic value due to a rise in interest rates would not have exceeded 4% of their own funds (see Chart 42). Looking by credit institution, the maximum improvement of the economic value in case of a parallel increase in the market rates of various maturities by 200 basis points would have amounted to 8.8% of own funds at the end of 2011 (3.4% at the end of 2010), whereas the maximum decrease would have been 7.6% of own funds (16.6% at the end of the previous year). The inter-quartile range suggests that for half of the credit institutions the effect of a parallel interest rate increase by 200 basis points on their economic value would have been within the range between 0.3% and –3.6% of their own funds (between 0.7% and –4.9% in the previous year).

Chart 42

LONG-TERM SENSITIVITY ANALYSIS: IMPACT OF INTEREST RATE INCREASE BY 200 BASIS POINTS ON THE ECONOMIC VALUE OF LATVIAN CREDIT INSTITUTIONS IN BREAKDOWN BY CREDIT INSTITUTIONS

(% of own funds)



Overall, the direct exposure of Latvia's credit institutions to the interest rate risk was limited and, as a result of a better balanced RSA and RSL composition, the sensitivity of the credit institutions' income and economic value towards steep changes in interest rates further decreased in 2011. Despite the reversal in the upward GAP growth trend in 2011, credit institutions should continue with further balancing of their RSA and RSL.

2.6 Shock-absorption capacity of credit institutions

Credit risk stress testing results suggest that the overall credit risk shock absorption capacity of the credit institution sector strengthened in the course of 2011, reaching a high level at the end of the year. This was supported by the increased capitalisation level of the credit institutions and improved loan portfolio quality as a result of the shrinking share of delinquent loans both achieved in 2011.

The Bank of Latvia has conducted a sensitivity analysis and two stress tests: the macroeconomic stress test and the stress test of the credit institutions' weighted average provisioning ratios. Estimates use the solo data of credit institutions as at the end of 2011[22], taking into account the credit institutions' capital increase plans for 2012. The threshold for the stress tests was set at 8.0% of CAR.

The results of the sensitivity tests[23] show that overall, without any additional capital injections, Latvian credit institutions would have been able to absorb a potential increase

[21] The FCMC Regulations on the Management of Interest Rate Risk, Preparation of a Report on the Calculation of Economic Value Decline and of a Report on the Term Structure of Interest Rate Risk stipulated that the decline of a credit institution's economic value is calculated applying the modified duration method, taking into account the parallel rate shock at 200 basis points set by the FCMC and assuming that the assets or liabilities mature in the middle of the respective time-band and the average yield of financial instruments is 5%.

[22] The data as at the end of 2011 do not include the data on the JSC *Latvijas Krājbanka* and the JSC *Parex banka*.

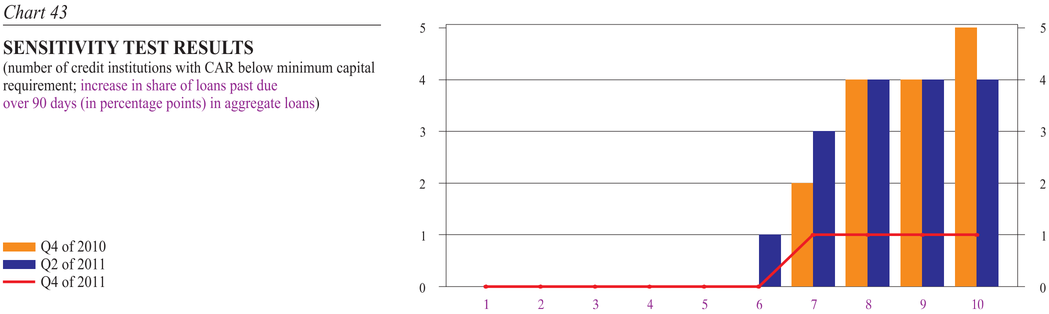
[23] Sensitivity test results provide an indication of the scale of increase in loans past due over 90 days that credit institutions would be able to absorb before their CAR falls below the minimum capital requirement. The estimates assume that a credit institution has to build provisions in the amount of 60% of the increase in the loans past due over 90 days. The own funds and RWA are reduced by the amount of the additional provisions.

in the credit risk resulting in the loans past due over 90 days expanding by 6.7 percentage points or more than 50%. In comparison with the end of 2010, the credit institutions' capacity to absorb an increase of loans past due over 90 days in their credit portfolios has improved (see Chart 43).

Chart 43

SENSITIVITY TEST RESULTS

(number of credit institutions with CAR below minimum capital requirement; increase in share of loans past due over 90 days (in percentage points) in aggregate loans)



In order to evaluate the resilience of credit institutions to adverse macroeconomic developments, macroeconomic stress testing was conducted in accordance with the methodology provided in the Bank of Latvia Financial Stability Report 2009.

Two macroeconomic scenarios were analysed: a baseline scenario reflecting the expected economic development of Latvia and a stress scenario according to which Latvia's economic development is subject to a negative shock that might set in with the intensification of the euro area sovereign debt crisis and significant deceleration in the economic development of Latvia's major trade partners.

For the baseline scenario, the values of macroeconomic variables were derived from the quarterly macroeconomic forecasts of the Bank of Latvia. The baseline scenario assumes that the growth of the Latvian economy will slow in 2012. Latvia's GDP growth is forecasted to reach 1.3%, the rate of jobseekers to decline to 14.4%, whereas the average annual inflation is expected to be 2.4%.

The stress scenario analyses the reaction of the Latvian economy to a combination of several shocks: a 20% decrease in the external demand, loss of consumer confidence resulting in a 5% decline in the private consumption and deterioration of the investor confidence causing a 5% fall in investment. Real GDP, inflation and unemployment assumptions for the stress scenario were derived from the Bank of Latvia's macroeconomic model[24] as a reaction towards the above-mentioned shocks. Judging by the macroeconomic variable values obtained under the stress scenario, such a combination of shocks could cause another economic downturn in Latvia. With the above-mentioned shocks materialising, the GDP growth would turn negative in 2012 (–4.0%), the rate of jobseekers would be 2.0 percentage points higher in comparison with the baseline scenario, while inflation would be 0.3 percentage point lower than in the baseline scenario.

Scenario modelling results

With the help of the Bank of Latvia's credit risk model, the impact of the stress scenario on the loan quality of credit institutions was modelled.

According to the baseline scenario, the share of loans past due over 90 days will remain broadly unchanged at the end of 2012 in comparison with the end of 2011, as the positive trends observed in the Latvian economy will be too weak to support a significant improvement in the loan quality. Under the stress scenario, the share of loans past due over 90 days will expand to 19.9% as at the end of 2012.

The macroeconomic stress test results show that all credit institutions, except one, would be able to absorb the additional losses incurred due to higher credit risk without additional capital increases. Only one credit institution would have minor shortage of capital amounting to 0.2 million lats. Additionally required provisions in the event of the stress

[24] See Beņkovskis, K., Stikuts, D. Latvia's Macroeconomic Model. Riga: Bank of Latvia. Working Paper No 2/2006.

scenario materialising would grow to 472.1 million lats or 2.4% of the aggregate assets of credit institutions. Table 4 features aggregated results of the macroeconomic stress test.

The coverage of high risk loans (i.e. restructured loans and loans in workout) by provisions varies quite considerably across credit institutions. The credit institutions' provisioning ratio for loans in workout remained broadly unchanged in 2011. The provisioning ratio for restructured loans remains low and could result in a need for the credit institutions to build additional provisions. In order to assess the credit institutions' capacity to absorb potential losses caused by building up additional provisions for high risk loans, a stress test was carried out by applying the weighted average provisioning ratio to various credit portfolio constituents grouped depending on the sector and collateral. This approach is based on an assumption that the weighted average provisioning ratios of loans in workout objectively reflect the potential losses from loans with high expected loss values. The stress test of the weighted average provisioning ratios provides an estimate of the credit institutions' capacity to absorb losses that could be caused as a result of making additional provisions for restructured loans and loans in workout to reach the average level. Loans in workout and restructured loans were divided into two basic groups: household loans and loans to non-financial corporations. These groups were then further divided into the following sub-groups:

1) household loans for house purchase, reconstruction and renovation;
2) other household loans;
3) loans to non-financial corporations for construction and real estate activities;
4) mortgage loans to other non-financial corporations;
5) loans to other non-financial corporations with other collateral and uncollateralised.

The basic rules to establish the provisioning ratios used in the stress test are displayed in Table 2, whereas the weighted average provisioning ratios used in calculations are featured in Table 3.

Table 2

BASIC RULES FOR ESTABLISHING PROVISIONING RATIOS UNDER THE WEIGHTED AVERAGE PROVISIONING RATIOS BASED SCENARIO

Loans in workout	Restructured loans	
	not past due and past due under 90 days	past due over 90 days
In each sub-group, the actual weighted average provisioning ratios for loans in workout of the credit institutions of the respective sub-group	In each sub-group, the actual weighted average provisioning ratios for restructured loans of the credit institutions of the respective sub-group	In each sub-group, the weighted average provisioning ratios for loans in workout of the credit institutions of the respective sub-group or the actual weighted average provisioning ratios of the credit institutions of the respective sub-group if they are higher than the ratios for loans in workout

Table 3

ACTUAL WEIGHTED AVERAGE PROVISIONING RATIOS AND THE RATIOS USED IN THE STRESS TEST

(as at end-2011; %)

	Loans in workout: actual and stress test ratio	Restructured loans		
		not past due and past due under 90 days: actual and stress test ratio	past due over 90 days: stress test ratio	past due over 90 days: actual ratio
1. Household loans for house purchase, reconstruction and renovation	44.7	11.4	44.7	40.1
2. Other household loans	46.3	11.6	54.5	54.5
3. Loans to non-financial corporations for construction and real estate activities	50.4	13.2	50.4	40.5
4. Mortgage loans to other non-financial corporations	45.0	9.1	45.0	26.0
5. Loans to other non-financial corporations with other collateral and unsecured	66.0	11.0	66.0	44.9

With the exception of other household loans, the same weighted average provisioning ratios were applied to restructured loans past due over 90 days and to loans in workout, because it was assumed that the value of their expected losses is similar. As in the group of other household loans the weighted average provisioning ratio for restructured loans past due over 90 days exceeded that of the loans in workout, the actual weighted average provisioning ratio was applied for the restructured loans past due over 90 days comprised in this sub-group.

According to the stress test results of the weighted average provisioning ratios of credit institutions, the credit institutions would be able to back high risk loans with provisions consistent with the average level without any need to raise extra capital. Additionally required provisions would grow to 222.0 million lats or 1.1% of the total credit institution assets. The aggregated stress test results are featured in Table 4, whereas the amounts of additionally required provisions by loan sub-groups are shown in Table 5.

Table 4

AGGREGATED STRESS TEST RESULTS

	Macroeconomic stress test	Weighted average provisioning ratios based stress test
Number of credit institutions with CAR below 8%	1	0
Additionally required capital (in millions of lats)	0.2	0
Additionally required provisions (in millions of lats)	472.1	222.0
Additionally required provisions (% of aggregate credit institution assets)	2.4	1.1

Table 5

ADDITIONALLY REQUIRED PROVISIONS BY LOAN SUB-GROUPS

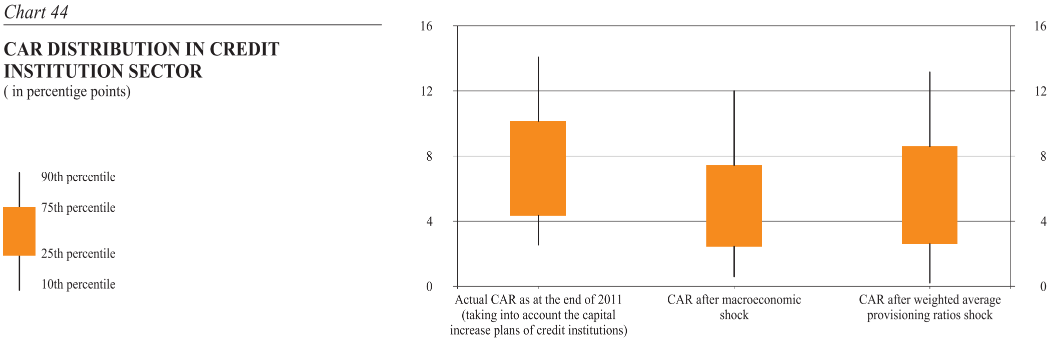
Sub-groups	Additionally required provisions (in millions of lats)
1. Household loans for house purchase, reconstruction and renovation	57.9
2. Other household loans	18.3
3. Loans to non-financial corporations for construction and real estate activities	68.2
4. Mortgage loans to other non-financial corporations	36.8
5. Loans to other non-financial corporations with other collateral and unsecured	40.9

The distribution of CAR across the credit institution sector in the case of the above scenarios materialising has been provided in Chart 44.

Chart 44

CAR DISTRIBUTION IN CREDIT INSTITUTION SECTOR

(in percentige points)



Stress test results show that in 2012 the credit institutions are overall able to withstand shocks in case of an adverse economic scenario materialising and additional losses caused by risky loans. Additionally required provisions are estimated at 222–472 million lats, yet the capital base of the credit institutions is sufficient to deal with the increase in provisions without raising additional capital.

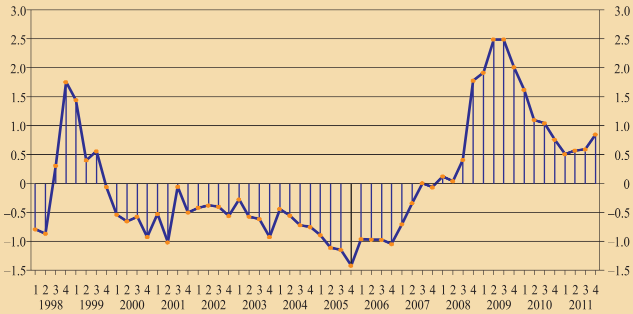
Box 5. Financial stress index of Latvian credit institutions

In 2011, the Bank of Latvia experts continued with the improvements of the financial stress index (FSI) methodology by introducing some changes to the composition of the indicators comprised in the index. The 3-month RIGIBOR was replaced by the spread between the 3-month RIGIBOR and EURIBOR. An additional variable was included in the index: the spread between the Latvian and German 10-year government debt securities yields. The movements of this variable reflect the changes in the risk premium on investment in Latvian government debt instruments. Three variables were excluded from the index: real estate price index, real GDP changes and NASDAQ OMX Riga share price index OMXR. FSI calculation methodology remained unchanged[25].

In 2010, the value of Latvia's FSI declined, whereas in 2011 it fluctuated below one standard deviation (see Chart 5.1). This suggests that the level of financial stress remained above the long-term average, although it was significantly lower than in 2009 and 2010.

Chart 5.1

FINANCIAL STRESS INDEX



The performance indicators of credit institutions stabilised and it was no longer necessary to build large provisions. This, in turn, had a positive effect on profitability (except in the fourth quarter). As a result of the regained market confidence, the spreads on the government debt securities narrowed significantly. Nevertheless, there were also some factors preventing a further decline in the stress levels. In 2011, Latvian credit institutions continued deleveraging, as suggested by the shrinking of the loan portfolio and debt repayments to parent banks. The profitability of the credit institution sector decreased in the fourth quarter due to the JSC Latvijas Krājbanka *losses[26], which also found a reflection in the increase of the index value. Nevertheless, the developments concerning the JSC* Latvijas Krājbanka *did not have a systemic effect on the credit institution sector. This is also confirmed by the FSI value for the fourth quarter (0.84; still below one standard deviation of the FSI).*

Box 6. The most significant regulatory changes for Latvian credit institutions

In 2011, several measures relating to transposition of the EU legislation and improvement of the financial sector regulation were implemented.

The most important amendments to laws and regulations introduced in 2011 were as follows:

1. New regulations
The FCMC developed and subsequently adopted on 15 April 2011 ***Regulations Governing the Activities of Payment Institutions and Electronic Money Institutions and Preparation of Reports*** *(effective as of 30.04.2011) listing the eligible assets into which a payment institution engaged in other types of commercial activities in addition to delivering payment services may invest the money received from the users of payment*

[25] For the methodology used in the index calculation see the Bank of Latvia Financial Stability Report, 2009, p. 20.
[26] See Subsection 2.2.

services or another payment service provider, in cases when, at the end of the next business day following receipt, this money has not yet been credited to the beneficiary account or has been transmitted to another payment service provider and has not been transmitted into a separate account in a credit institution, as well as the eligible assets into which an electronic money institution may invest money received in exchange for the issued electronic money. The Regulations set the procedure for estimating own funds of a licensed payment institution and an electronic money institution as well as the procedure for the preparation and submission of the reports to be submitted to the FCMC.

On 11 November 2011, the FCMC approved the ***Regulations Governing the Merger of Funds, the Dealing Between Master-Feeder Structures and the Procedure for Marketing Investment Certificates*** *(effective as of 24.11.2011) laying out detailed content and format of the information about the proposed merger of funds that is provided to their investors and the procedure for submitting that information; content of the agreement and of the internal rules governing the business conduct between master–feeder structures; content of information to be submitted to receive the approval for liquidation, merger or division of the master fund as well as content of the information sharing agreement between the custodian banks and sworn auditors. The Regulations also establish the procedure for marketing investment certificates of open-end investment funds registered (established) in other member states in Latvia.*

On 11 November 2011, the FCMC also approved ***Regulations on the Preparation of Reports of Investment Funds*** *(effective as of 31.12.2011) relating to the preparation of those reports which reflect the global exposure of a fund; its amount of risk exposures to counterparties in transactions with OTC FDI; counterparty/issuer concentration; loans and synthetic indicator of an investment fund to be disclosed with the key investor information and calculated in accordance with the Regulations for Calculating the Fund's Global Exposure and Risk Exposure to a Counterparty and Regulations for Drawing Up Key Investor Information developed by the FCMC.*

2. Improvements to regulations

On 28 January 2011, the FCMC adopted ***Amendments to Regulations on the Internal Capital Adequacy Assessment Process*** *(effective as of 05.02.2011) setting the minimum requirements for stress testing within the framework of capital adequacy assessment, including a requirement that any credit institution exposed to material credit risk, operational risk, market risks and concentration risk is obliged to carry out the stress testing of those risks and take into account the results of this stress testing in determining the amount of capital needed to cover the respective risk. The amendments stipulate that to determine the size of the capital buffer the credit institution must consider several macroeconomic development scenarios: a baseline scenario and at least one materially adverse scenario. The amendments also introduce additional requirements for market risk assessment, subordinated capital planning and information to be disclosed by credit institutions in the report on capital adequacy assessment process to be submitted to the FCMC.*

On 9 December 2011, the FCMC approved ***Amendments to Regulations for Calculating the Minimum Capital Requirements*** *(effective as of 29.12.2011) establishing the requirement to calculate the capital requirement for settlement risk for all exposures instead of only those included in the trading book; increasing the capital requirements for equities, securitisation positions and re-securitisation positions included in the trading book; tightening the standards for internal models for calculation of the capital requirements for market risks and further specifying the elements of own funds themselves.*

On 9 December 2011, the FCMC also approved Amendments to Regulations on the Compliance with Restrictions on Exposures (effective as of 29.12.2011) supplementing the list of the types of exposures exempt from restrictions on exposures with those claims on central banks denominated in the respective national currency that are taken into consideration when judging compliance with the minimum reserve requirements.

3. Amendments to laws

*On 13 October 2011, the Saeima of the Republic of Latvia adopted the Law "**Amendments to the Law on Investment Management Companies**" (effective as of 16.11.2011) implementing the requirements of Directives 2009/65/EC, 2010/42/EU and 2010/43/EU aimed at establishing universal EU-level market conditions by aligning the conditions of competition for investment management companies registered in the member states as well as lifting the restrictions on registration of open-end investment funds, while at the same time providing more effective protection to the funds' investors.*

*On 17 March 2011, the Saeima of the Republic of Latvia adopted the Law "**Amendments to the Law on Payment Services**" (effective as of 30.04.2011) establishing the regulatory and supervisory requirements for the registration, licensing and operation of electronic money institutions. The amendments expand the rights of the "electronic money institution" previously governed by the Law "On Credit Institutions" by allowing it, in addition to issuing electronic money, also to deliver payment services. It also broadens the application of the requirements previously set exclusively to payment institutions in the area of payment service delivery to include also electronic money institutions.*

3. DEVELOPMENT OF THE NON-BANK FINANCIAL SECTOR

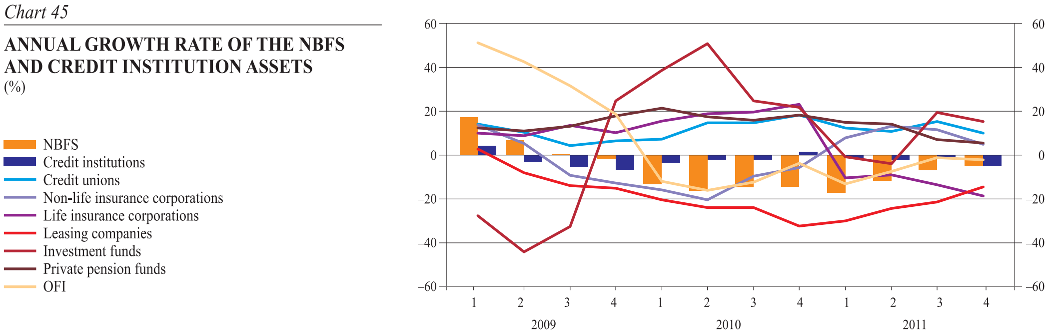
In 2011, the risks of the major NBFS institutions – the leasing companies, other financial intermediaries (OFI)[27] and credit unions have followed a downward trend due to positive economic developments in Latvia. The risks of these NBFS institutions are primarily related to the ability to ensure a quality loan portfolio. In 2011, substantial changes were observed on the market of the so called quick credit providers – these institutions have been licensed since the autumn of 2011. In view of the high requirements to receive the licence, the weaker institutions left the market, while some local ones were able to merge. Thus, the strongest participants (including also those with the foreign capital), which are actively trying to attract customers stayed on the market of the quick credit providers. Currently the loan portfolio of these institutions declined; however, the estimation of the impact of the introduction of licensing would require a longer period of time. At the same time, the signs of increased risk appetite, directing investment from the relatively safest instruments (time deposits and debt securities) to shares and fund certificates were apparent in the investment portfolios of insurance corporations, investment funds and pension funds. The ability to implement the investment policy successfully will be decisive for these institutions, in particular if fluctuations on the markets will also persist in the forthcoming periods. However overall, the impact of the NBFS on the financial stability does not play a significant role due to the insignificant amount.

The NBFS assets continued to decrease in 2011, although the dynamics of development of some institutions was positive (see Chart 45). The NBFS assets grew by 5.1% during the year and reached 3 024.0 million lats. The share of the NBFS in the overall financial sector remained unchanged, with their share in assets remaining 12.7%. The OFI assets have accounted for the major share of the NBFS assets since 2010. Their share in the NBFS assets was 44.3% at the end of 2011. In 2011, assets of the institutions, whose principal activity is related to brokerage operations in the securities market and insurance agents and brokers, reported the steepest rise in respect of OFI. However, the institutions, which provide factoring services or engage in financial intermediation (not related to lending) still retain the largest share in the OFI sector. In 2011, the share of assets of the holding companies also became larger than that of other institutions providing lending services (lombards, quick credit providers etc.).

[27] The OFI includes those institutions, which provide other lending services, including the lombards, quick credit providers, as well as institutions and holding companies providing activities auxiliary to financial service and insurance activities.

Chart 45

ANNUAL GROWTH RATE OF THE NBFS AND CREDIT INSTITUTION ASSETS
(%)



The role of the leasing companies in the NBFS weakened, as their assets versus the NBFS assets dropped to 31.8%. The share of assets of the insurance corporations and investment funds in the total NBFS assets increased in 2011 (to 11.7% and 7.8% respectively). The share of assets of the private pension funds and credit unions in the NBFS was traditionally small (4.0% and 0.4% of the NBFS assets respectively).

The risk of OFI and leasing companies that could affect the credit institutions directly is related to the borrowing from credit institutions to these financial intermediation corporations – the volume of the borrowing from credit institutions in the balance sheets of these corporations is very significant. However, the share of loans to OFI and leasing companies in the total loan portfolio of credit institutions is small (3%), and this cannot cause problems to the credit institutions. Participating interest of the credit institutions in the capital of these NBFS institutions is another factor determining that stress from OFI and leasing companies may affect the credit institutions. This indicator will be close to 3% for OFI and close to 88% for leasing companies; however, the level of capital of leasing companies is far more lower than their borrowings from credit institutions.

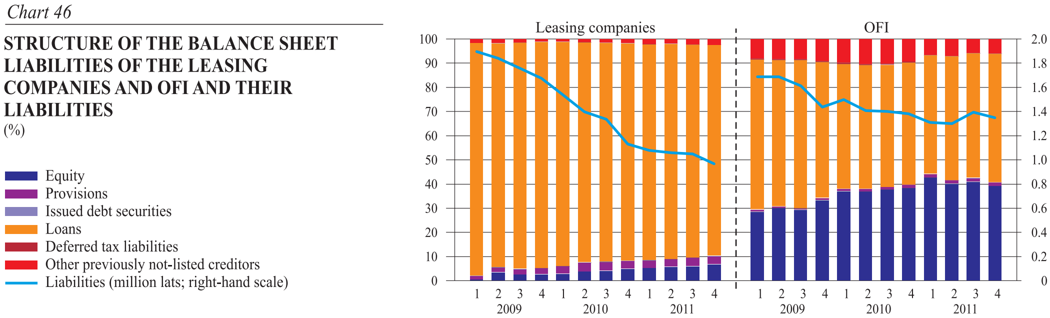
OFI

Given that the OFI sector includes both the corporations engaged in and those not engaged in lending, the share of loans in assets for this sector was lower than that for leasing companies (39% at the end of 2011, but 86.2% for leasing companies). In 2011, the share of loans to residents in the structure of the OFI loan portfolio increased at a quarterly frequency, reaching 66.2% of the total amount of loans. Moreover, the share of loans granted to resident non-financial corporations posted a steeper increase from 36.0% at the end of 2010 to 49.0% at the end of 2011, while the share of loans granted to private persons decreased rapidly (from 52.8% to 29.5% respectively).

As regards the structure of funding of the OFI, the share of loans (51.3%) on their liabilities side of the balance sheet was smaller in comparison with the leasing companies (see Chart 46). The structure of funding of this sector is broader than that of the leasing companies: approximately a half of the loans were from credit institutions (18.6% from resident credit institutions and 29.1% from non-resident credit institutions). Non-resident non-MFI were still an important source of borrowing; however, the share of this funding has decreased to 27.8%. The capital (its share on the liabilities side of the balance sheet accounted for 40.8% at the end of 2011) played a more significant role on the OFI balance in comparison with the leasing companies. A larger share of the capital on the liabilities

Chart 46

STRUCTURE OF THE BALANCE SHEET LIABILITIES OF THE LEASING COMPANIES AND OFI AND THEIR LIABILITIES
(%)



side was determined by the institutions providing activities auxiliary to financial service and insurance activities to factoring and holding companies.

Leasing companies

The annual rate of decrease (–14.5%) of leasing companies moderated at the end of 2011, inter alia on account of the new transactions. The portfolio of loans issued to resident non-financial institutions is dominated by the services sectors – transport and storage, trade and other services accounting for 50% of the overall financial leasing portfolio. The concentration of such leasing loans in some sectors of the economy may be overall assessed as negative, as the portfolio of leasing companies' loans became less diversified, with the share of loans issued to production and agricultural sectors decreasing. The outstanding amount of the portfolio of financial leasing granted to resident households declined more rapidly than that issued to resident non-financial corporations (to 18%). The part of the portfolio of financial leasing issued to non-residents is very small – slightly above 3% of the overall portfolio.

The composition of the financing of leasing companies was still dominated by loans from credit institutions; however, their share on the liabilities side of the balance sheet of the leasing companies decreased in 2011 (from 91.0% to 88.4%), with the liabilities to non-resident credit institutions increasing (from 55.4% to 60.8%).

Insurance sector

The economic developments in Latvia which improved in 2011 are a prerequisite for the successful development of the insurance sector. As a result of the economic growth, insurance corporations succeeded in attracting more premiums. However, similar to other market participants, the developments in the financial markets in 2011 were a challenge for insurance companies.

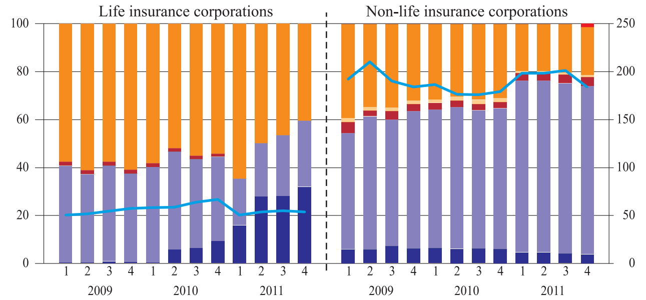
The insurance sector is the largest NBFS in Latvia's financial market, whose principal activity is not related to lending. The developments in the financial sector were significantly affected by the re-registration of insurance companies elsewhere – this trend was more reflected in the life insurance sector, where there were only three companies registered in Latvia in 2011, with others operating as branches. The assets of the life insurance sector decreased by 18.7% in 2011; however, this was mainly due to the above change of residence. At the same time, the increase in assets of the three companies left in Latvia continued, albeit at a slower rate than in the previous year.

The trend to increase investment in more risk-exposed instruments in the life insurers' investment portfolio surfaced already at the end of 2010, with some corporations diversifying the investment portfolio with potentially more profitable instruments, but in 2011 this trend persisted. Time deposits in the investment portfolio declined significantly: time deposits with credit institutions decreased to 40.6% of the portfolio value in 2011. Investment in shares and other non-fixed income securities posted a rapid increase (from 9.3% to 31.9%; see Chart 47). Investment in debt securities and other fixed-income securities dropped in 2011 (from 35.2% to 27.5%); however, this decline was mainly on account of the decrease in the number of life insurance companies.

Chart 47

STRUCTURE OF THE INVESTMENT PORTFOLIO OF INSURANCE COMPANIES
(%)

- Shares and other non-fixed income securities
- Debt securities and other fixed-income securities
- Mortgage-backed loans
- Other loans
- Time deposits with credit institutions
- Other investment
- Investment portfolio (million lats, right-hand scale)



The non-life insurance sector has also undergone structural changes at the end of 2011, with the number of participants decreasing and individual participants starting to operate as branches.

In contrast with the developments in the life insurance sector, the investment portfolio of non-life insurers' became more conservative in 2011. Investment in debt securities, predominantly in the government debt securities, in the portfolio continued to increase (with its share in the portfolio rising from 58.3% to 71.1%). Similar to the life insurers' investment portfolio, investment in time deposits decreased (from 31.1% to 19.9%). Investment in shares and other fixed-income instruments remained insignificant.

With the economic situation in the domestic market improving, the non-life insurance corporations have signed more premiums than in the previous years for the first time since the crisis in 2011. Insurance premiums signed by non-life insurance corporations increased by 26.9% in 2011, while premiums by life insurance corporations decreased by 24.3%, although this decline in premiums was predominantly related to structural changes in the sector. The profit of the insurance corporations dropped in 2011 – non-life insurance corporations earned 0.7 million lats, but losses of life insurance corporations amounted to 2.6 million lats, which is the worst result observed over the last three years. Although premiums signed in the insurance sector increased overall and exceeded the level of insurance compensation, the shrinking profit and losses were largely affected by the investment results, in particular in the second half of the year.

Investment companies and pension funds

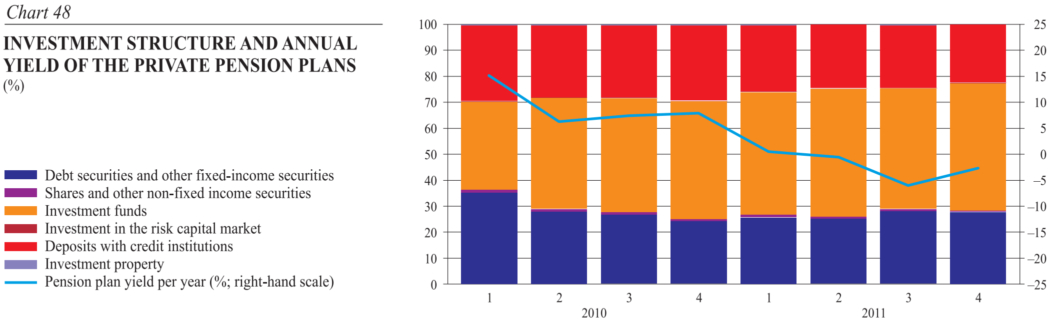
The operation of investment companies and pension funds in 2011 were significantly affected by the developments on the global financial markets. These NBFS participants undertook higher risk in 2011, increasing investment in the stock markets and funds.

In 2011, risk investment in the fund market increased: Stock investment funds became the largest by total assets (their share in total assets of the investment funds amounted to 30.9% at the end of 2011 and 10.9% at the end of 2010). Given a rapid increase in the assets of stock investment funds, the share of other investment funds has decreased, while a decline in the volume was predominantly recorded for the funds of a mixed type. The establishment of stock investment funds and their entry into the market had also an effect on the composition of the investment fund portfolio, with investment in shares and other non-fixed income securities increasing (its share in the portfolio was 34.3% at the end of 2011). Demand claims on credit institutions remained insignificant (8.5%). In 2011, the net asset value of investment funds decreased by 19.8 million lats as a result of investment, with the stock investment funds reporting the largest losses incurred due to investment.

The assets of the private pension funds recorded an increase in 2011; however, the growth rate of their assets moderated (see Chart 48).

Chart 48

INVESTMENT STRUCTURE AND ANNUAL YIELD OF THE PRIVATE PENSION PLANS
(%)



The share of relatively safer but also lower-yield deposits and claims on credit institutions in the investment portfolio of the private pension plans decreased in 2011 – the amount of such investment in the total investment portfolio shrank to 22.2% (29.2% a year before; see Chart 48). Investment in investment fund cerificates increased, with its share in the portfolio rising to 49.0% (28.6% a year before). Investment in debt securities rose slightly, amounting to 27.8% of the total portfolio (24.1% a year before). Thus, the structure of the portfolio has not become more diversified – almost a half of the investment portfolio was invested in the fund certificates, and operational results of these funds may largely affect the results of the pension funds. The largest part of investment in fund certificates was invested in the funds registered outside Latvia, including in Luxembourg, Ireland and France.

A positive increase in the assets of pension plans in 2011 was mostly due to net contributions to pension plans, which had increased by 14.3%. Net asset value decreased, in particular in the second half of 2011 as a result of investment activities of the pension plans. At the end of 2011, the yield on investment of the private pension plans was negative (–2.7%; see Chart 48).

Credit unions

A part of the funds attracted by credit unions[28] are placed in deposits with credit institutions; however, their balance in credit institutions is insignificant. The number of the credit unions registered in Latvia amounted to 33 in 2011, and the outstanding amount of total assets was 12.9 million lats at the end of the year. In contrast to credit institutions' assets that continued to decline in 2011, the credit unions' assets posted an increase (by10.0%). Lending to credit unions recovered in 2011, and the annual increase in loans was almost 7%.

4. FINANCIAL INFRASTRUCTURE

Within the oversight framework, the Bank of Latvia assessed systemic risk of the Bank of Latvia's interbank payment systems SAMS and EKS ensuring the lats settlements and securities settlement system DENOS of the LCD in 2011. The assessment confirmed that the probability of risk was persistently low in the above systems and these systems ensured efficient and safe payment and settlement environment to the participants and the entire financial system.

4.1 Payment systems

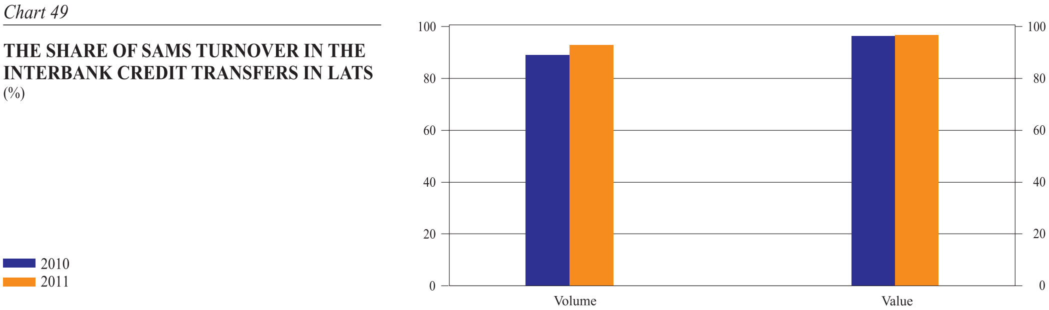
The SAMS

In 2011, the SAMS was the only systemically important payment system for lats payments in Latvia. The SAMS ensures real-time gross settlement in lats for 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 2011, 92.9% (78.9 thousand) of all interbank credit transfers executed in Latvia in lats were made via the SAMS. The value of payments processed via the SAMS amounted to 96.8% (120.6 billion lats; see Chart 49). The credit transfers handled among Latvian credit institutions via correspondent banking arrangements accounted for the remaining share.

Chart 49

THE SHARE OF SAMS TURNOVER IN THE INTERBANK CREDIT TRANSFERS IN LATS
(%)

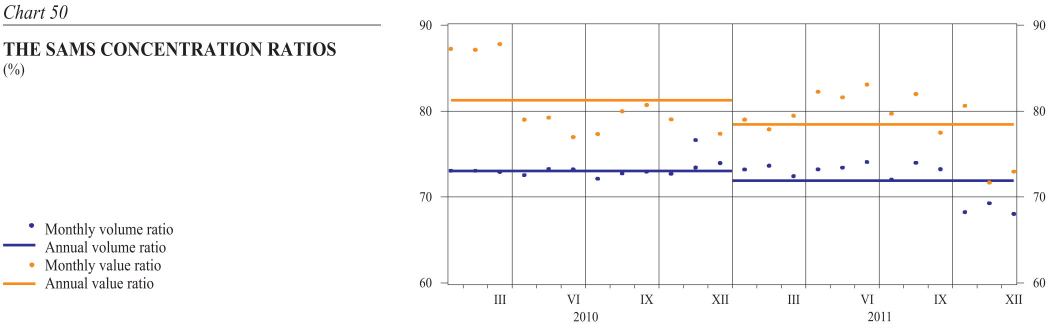


[28] The operation of credit unions is analogous to that of credit institutions when accepting deposits and issuing loans to their members.

The volume and value concentration ratios of SAMS stood below 80% in 2011. Year-on-year, the volume concentration ratio of SAMS declined from 73.0% to 71.9% in 2011 and value concentration ratio fell from 81.3% to 78.4% (see Chart 50). The decrease in the value concentration ratio of SAMS was primarily attributable to the changes in SAMS participants: over the year, three new participants, JSC *Latvijas Biznesa banka*, Rigensis Bank AS and Treasury, joined the system, while two participants, Joint Stock Company Bank SNORAS Latvian branch and JSC *Latvijas Krājbanka*, ceased to participate in the system.

Chart 50

THE SAMS CONCENTRATION RATIOS
(%)

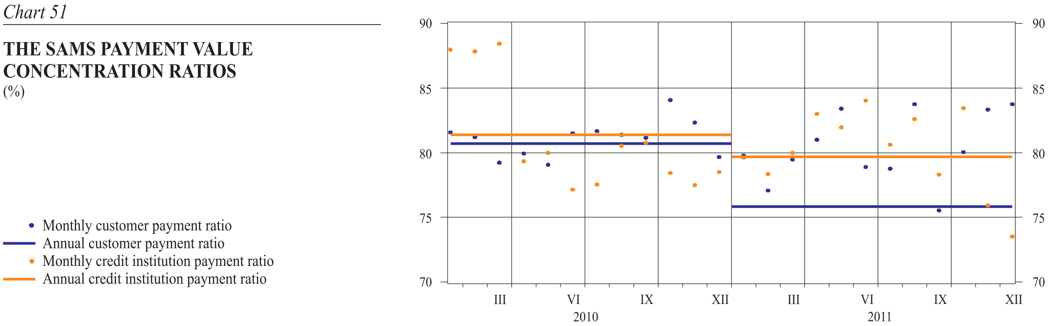


In 2011, interbank payments comprised 91.2% of the value of payments processed via the SAMS and customer payments only amounted to 8.8%. The value of interbank payments effected through the SAMS narrowed by 20.9% (to 120.6 billion lats) in 2011, while that of customer payments expanded by 31.9% (to 11.6 billion lats). The share of interbank and customer payments was 41.9% and 58.1% in terms of volume respectively.

In 2011, the value concentration ratio of interbank payments (79.7%) was by 3.9 percentage points higher than that of the customer payments (75.8%; see Chart 51). The concentration ratio of the two payment types recorded a year-on-year decrease.

Chart 51

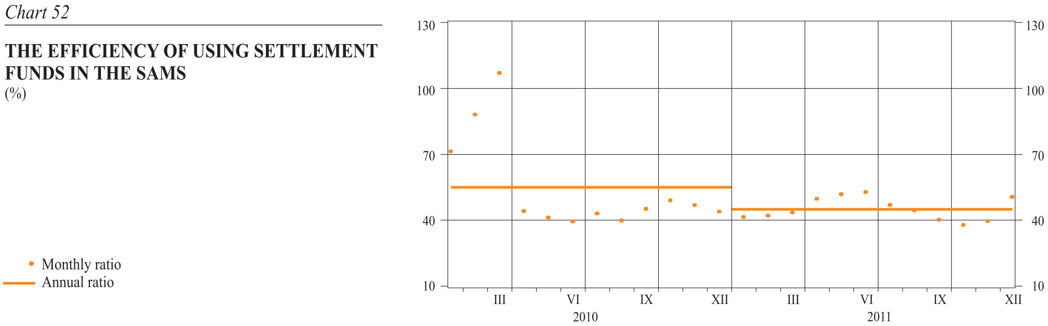
THE SAMS PAYMENT VALUE CONCENTRATION RATIOS
(%)



In addition to the concentration ratio and the share of a payment system, systemic risk in the respective payments' segment is affected by the efficiency of using settlement funds in the payment systems. The above risk is described in the gross settlement systems by the share of funds in account balances used for settlement. In 2011, the efficiency ratio of using settlement funds declined from 55.0% to 44.9% (i.e. funds held on credit institution accounts opened in the SAMS for the purpose of executing payments in the SAMS were used 0.4 times in such payments; see Chart 52). The balance on the settlement accounts is substantially affected by the reserve ratio set by the Bank of Latvia

Chart 52

THE EFFICIENCY OF USING SETTLEMENT FUNDS IN THE SAMS
(%)



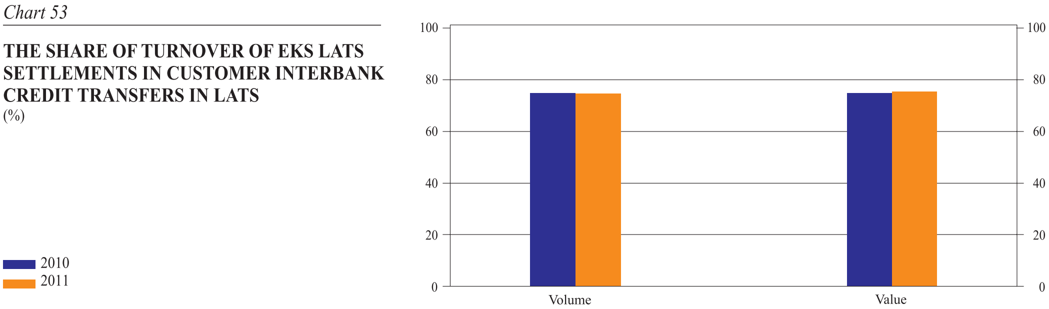
(3% for credit institution liabilities with a maturity of over two years and 5% for credit institution liabilities with a maturity of up to two years). In 2011, the above ratio remained unchanged. In 2011, the average daily balance on the credit institution accounts with the Bank of Latvia was 8.8% higher year-on-year, reaching 760.1 million lats. The value of payments made by credit institutions in the SAMS shrank by 10.8% (to 86.4 billion lats) in 2011. Overall, the systemic risk assessment pointed to a continuously subdued probability of risk in the SAMS.

The EKS

The EKS is a net settlement system processing retail customer payments. The EKS ensures two clearing cycles for the lats payments daily. In 2011, of retail customer credit transfers made among credit institutions in lats, 74.7% (34.6 million) were handled by the EKS in terms of volume during the EKS lats settlement, and their value amounted to 75.4% (12.0 billion lats) of the value of retail customer credit transfers made among credit institutions in lats (in 2010 – 74.8% and 74.9% respectively; see Chart 53). Mutual settlement of retail customer credit transfers executed by some credit institutions of Latvia accounted for the remaining share.

Chart 53

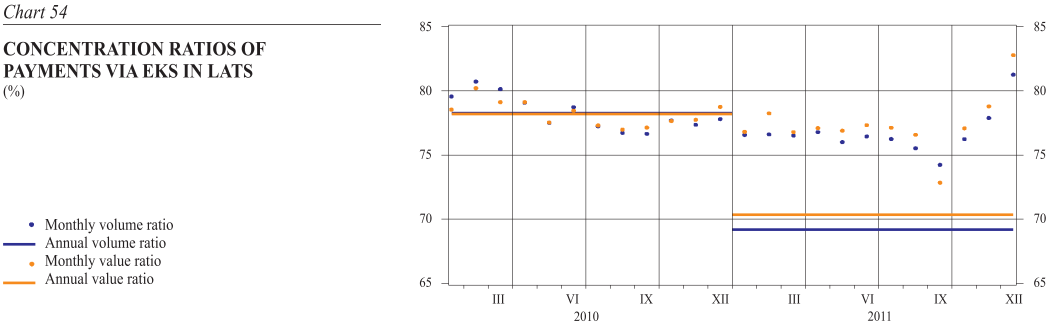
THE SHARE OF TURNOVER OF EKS LATS SETTLEMENTS IN CUSTOMER INTERBANK CREDIT TRANSFERS IN LATS
(%)



Although the monthly concentration ratio of the lats settlement via the EKS exceeded 80% in December 2011, the concentration ratio declined overall year-on-year and stood below 80% both in terms of volume and value in 2011 (69.2% and 70.4% respectively; see Chart 54). The decrease in the concentration ratio was primarily attributable to the changes in the EKS participants: over the year, three new participants, JSC *Latvijas Biznesa banka*, Rigensis Bank AS and Treasury, joined the system, while two participants, Joint Stock Company Bank SNORAS Latvian Branch and JSC *Latvijas Krājbanka*, ceased to participate in the system.

Chart 54

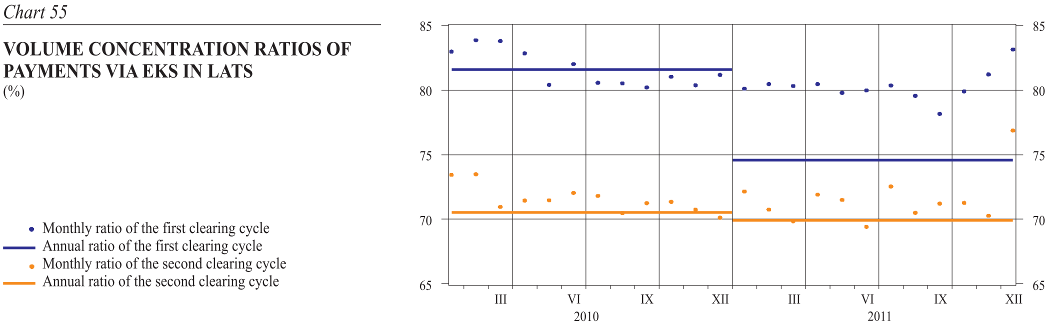
CONCENTRATION RATIOS OF PAYMENTS VIA EKS IN LATS
(%)



As regards the lats settlement in the EKS in 2011, 69.7% of the volume of all payments executed in lats and 57.1% of the value of payments handled in both clearing cycles in lats were processed in the first clearing cycle. Of the lats payments executed in the EKS, the total volume of payments rose by 5.3% (to 24.1 million) and value grew by 14.5% (to 6.9 billion lats) in the first clearing cycle, while the volume of payments executed in the second clearing cycle expanded by 5.9% (to 10.5 million) and value increased by 14.4% (to 5.2 billion lats) year-on-year. A comparison of the annual payment volume concentration ratios of both clearing cycles (see Chart 55) showed that the volume concentration ratio of the first clearing cycle was by 4.7 percentage points higher than the above ratio of the second clearing cycle (74.6% and 69.9% respectively). The functionality of the EKS enabling the payment settlement in the second clearing cycle in case such payment is not settled in the first clearing cycle, contributes to mitigating the impact of the concentration ratio of the first clearing cycle on systemic risk.

Chart 55

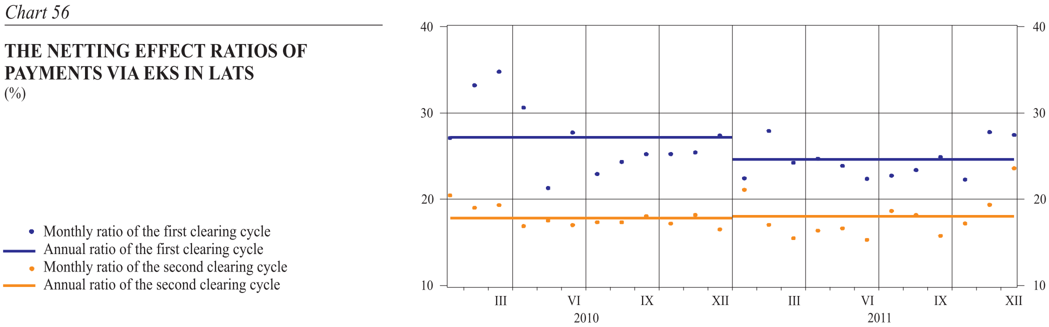
VOLUME CONCENTRATION RATIOS OF PAYMENTS VIA EKS IN LATS
(%)



In addition to the concentration ratio and the share of a payment system, systemic risk is determined by the efficiency of using settlement funds in the payment systems. The efficiency of using settlement funds in net settlement systems, including the EKS, is described by the netting effect ratio, i.e. the system participants' net debit positions as a percentage of the system's gross transaction value which did not point to a significant risk in 2011. According to the ECB methodology, where the system's netting effect ratio is below 10%, the system is deemed to be highly efficient – with high netting effect, i.e. the majority of transactions are mutually offset (netting) and the system's participants do not need additional liquidity on their accounts. In the event of settlement errors, however, high netting effect may create risk since the system participants may incur higher settlement obligations and additional liquidity may be needed. As regards the payments executed via the EKS in lats, the netting effect ratios of the first and second clearing cycles were 24.6% and 18.0% respectively in 2011 (27.2% and 17.8% respectively in 2010; see Chart 56), and since the netting effect ratio below 10% points to a significant risk, in 2011, the netting effect ratio pointed to a low probability of risk. Since the value of net debit positions of payments executed by the EKS participants (credit institutions) in lats was minor (0.2% on average) in 2011 compared with the balance on the credit institution settlement accounts with the Bank of Latvia, the netting effect created no need for additional settlement funds in lats (liquidity risk) in the system.

Chart 56

THE NETTING EFFECT RATIOS OF PAYMENTS VIA EKS IN LATS
(%)



Overall, the systemic risk assessment pointed to a continuously subdued probability of risk in the EKS.

4.2 Securities settlement systems

DENOS

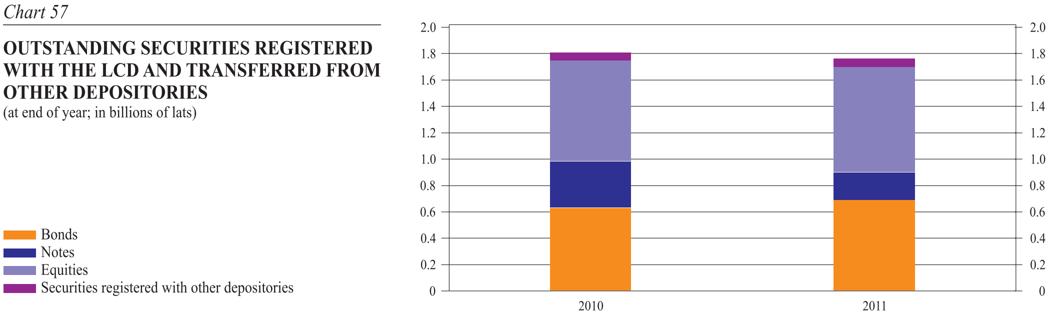
DENOS is a systemically important securities settlement system, where, in case the system were insufficiently protected against risk, disruption within it could trigger further disruptions among the system's participants or systemic disruptions in the financial system. DENOS has also been used for the securities settlement of the Bank of Latvia monetary policy operations. DENOS is the sole securities settlement system in Latvia. In 2011, the LCD continued to provide delivery versus payment (DVP) gross and net settlement for the transactions executed on a regulated market and DVP and free of payment (FOP) gross settlement of transfers for the transactions executed outside the regulated market. The LCD provides one DVP net settlement cycle daily and DVP and FOP gross transfers during the entire settlement day on LCD business days. The LCD executes cash settlement for the securities transactions made in lats through the central bank's accounts in the SAMS, and settlement in other currencies – by means of the credit institution cash settlement.

In 2011, the LCD continued to ensure cross-border settlement in DENOS through bilateral links with the Estonian Central Securities Depository *Eesti Väärtpaberikeskus AS* (EVK) and Lithuanian Central Securities Depository *Vertybinių popierių atsiskaitymo sistema* (CSDL). The LCD terminated cooperation with the international CSD Euroclear Bank, but entered in to a link agreement with the international CSD Clearstream Banking SA Luxembourg (CBL). The link to CBL is unilateral, enabling the participants in DENOS and their customers to transfer international securities registered with CBL to Latvia. Securities settlement is ensured through the links to EVK, CSDL and CBL, by applying FOP and DVP.

Securities amounting to 1 761.5 billion lats were recorded in the LCD at the end of 2011 (47.4 billion lats (2.6%) lower year-on-year; see Chart 57). The declining amount of short-term debt securities recorded in the LCD (by 39.5%; to 213.7 million lats) accounted for a fall in the amount of securities recorded in the LCD. At the same time, the amount of bonds recorded in the LCD increased by 8.7% (to 748.4 million lats) and that of equity grew by 4.2% (to 799.4 million lats). Changes in the amount of debt securities recorded in the LCD were attributable to the improving financial situation and strengthening confidence in the Latvian government, enabling the government to reduce the amount of short-term borrowing. At the end of 2011, the amount of securities transferred from other depositories and recorded in the LCD remained almost unchanged year-on-year, while the relevant share in the aggregate amount of securities recorded in the LCD rose by 0.1% (to 3.8%) since the aggregate amount of securities issued by the LCD shrank.

Chart 57

OUTSTANDING SECURITIES REGISTERED WITH THE LCD AND TRANSFERRED FROM OTHER DEPOSITORIES
(at end of year; in billions of lats)



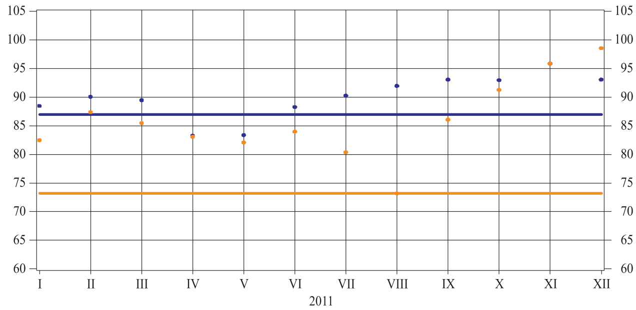
In the securities settlement systems, settlement risks may be related both to cash settlement and securities settlement. The Bank of Latvia only assessed risk of those transfers, where the settlement was executed in lats since their share in the total value of transfers related to cash settlement stood at 92.0%.

a) Assessment of risk related to cash settlement in lats

In 2011, the annual concentration ratios of DVP transfers (total gross and net DVP) made in lats and processed by DENOS amounted to 87.0% and 73.2% in terms of transfer volume and value respectively (see Chart 58). The volume and value concentration ratios exceeding 80% point to high systemic risk. The volume concentration ratio of DENOS exceeds 80% and high value concentration ratio has also been observed in some months; however, the LCD rules stipulate the procedures for the settlement risk mitigation as well as 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 amounts to 0.4% of the total value of payments processed in the SAMS.

Chart 58

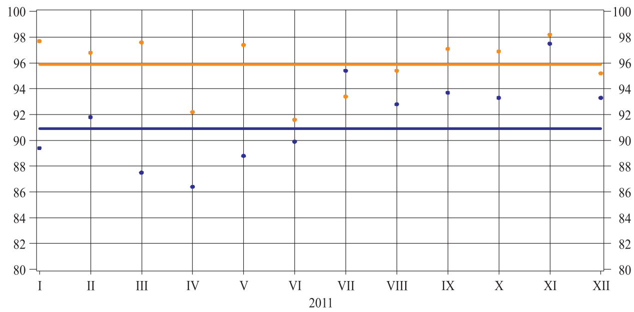
CONCENTRATION RATIO OF DVP TRANSFERS MADE IN LATS VIA DENOS
(%)



In 2011, the annual concentration ratio of DVP net transfers made in lats and processed in DENOS stood at 90.9% and 95.9% in terms of transfer volume and value respectively (see Chart 59). The volume and value concentration ratios of DENOS exceed 80% and point to high systemic risk in DVP net lats settlement of the transactions made on a regulated market. Only transfers based on transactions executed through NASDAQ OMX Riga are processed on a net settlement basis. NASDAQ OMX Riga runs a Guarantee Fund that may be enacted subject to a decision taken by NASDAQ OMX Riga in case a participant has insufficient funds for settling the transactions executed during NASDAQ OMX Riga continuous trading. In addition, the LCD rules 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 cash settlement is made via the SAMS where the participants have substantial account balances, the probability of systemic risk materialisation is low. The total value of DVP net transfers made in lats and processed in DENOS only amounts to 0.02% of that of payments processed in the SAMS.

Chart 59

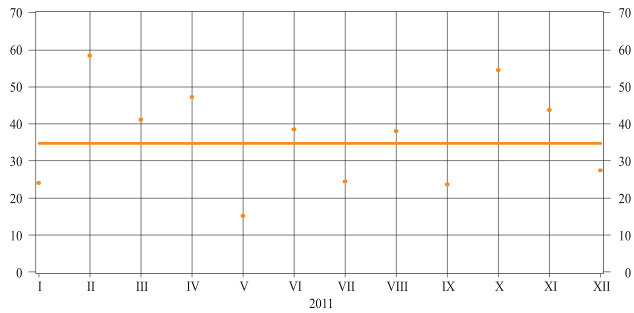
CONCENTRATION RATIO OF DVP NET TRANSFERS MADE IN LATS VIA DENOS
(%)



In 2011, 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 34.7% (see Chart 60). A netting effect ratio below 10% points to a significant risk. Hence the netting effect did not point to a significant risk in 2011.

Chart 60

NETTING EFFECT RATIO OF DVP TRANSFERS MADE IN LATS VIA DENOS
(%)



The LCD and NASDAQ OMX Riga stipulate the procedures aimed at mitigating the cash settlement related risk, for instance, the application of DVP to all cash settlement related transfers, ensuring the settlement finality; additional net settlement cycle to enable the settling of NASDAQ OMX Riga transactions, if sufficient funds are not available in the first cycle; application of the procedures established by NASDAQ OMX Riga Guarantee Fund for the completion of the continuous trading related settlement at NASDAQ OMX Riga in case a participant has insufficient funds for executing 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 settlement cycle due to insufficient funds.

Overall, it might be concluded that, given the settlement risk mitigation procedures applied by the LCD and NASDAQ OMX Riga and current value of settlement funds, the probability of systemic risk materialisation was low.

b) Assessment of risk related to securities settlement

To assess risks related to the securities settlement in DENOS, the overseers relied on the information submitted by the LCD about default transaction indicators obtained by assessing DENOS, and reviewed the settlement risk mitigation procedures incorporated in the LCD rules. The LCD and NASDAQ OMX Riga apply these procedures in cases where a DENOS participant has insufficient amount of securities. According to the data submitted by the LCD, more than 99.99% of the transactions are settled in DENOS on the planned settlement date both in terms of volume and value, while 99.99% of transactions outstanding on the settlement date are settled within one or two business days of the outstanding transaction date.

Where a participant in DENOS has insufficient number of securities, DENOS shall ensure that the LCD participants may transfer securities in accordance with the settlement period T + 0. In such a case, the DENOS participants agree on the delivery of securities outside the regulated market.

The LCD and NASDAQ OMX Riga stipulate the procedures aimed at mitigating the securities settlement related risk, for instance, the application of DVP to all cash settlement related transfers, ensuring settlement finality; execution of securities transfer only upon the receipt of the confirmation on the execution of linked payment from the settlement agent; blocking of securities on the securities accounts prior to cash settlement; application of the deferred settlement where the amount of securities is insufficient in net settlement cycle, i.e. suspension of settlement instructions from net settlement cycle, converting them into gross transfers and settling separately; rolling over a default transfer instruction to the next settlement day. If the amount of securities is insufficient for continuous trading related settlement, NASDAQ OMX Riga may take a decision on the purchase of securities at a market price. DENOS ensures that no more securities may be transferred by it than those recorded in the participant's correspondent account in DENOS.

Overall, the probability of systemic risk in relation to the securities settlement is minimal, since the LCD and NASDAQ OMX Riga 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 implemented measures is adequate.

The concentration ratios of DENOS pointed to high systemic risk, while the settlement risk mitigation procedures applied by the LCD and NASDAQ OMX Riga, netting effect ratio, indicator of transaction execution, settlement value and other provisions suggested that overall, the probability of systemic risk materialisation remained low.

APPENDIX

Credit institutions performance indicators

	Group 1[1]					Group 2[2]				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011[3]
Balance sheet items										
Number of credit institutions and subsidiaries of foreign credit institutions	7	9	9	9	10	16	18	18	20	20
Total assets (in millions of lats)	12 383.5	13 736.8	13 138.2	12 626.2	11 300.6	9 532.5	9 506.6	8 540.1	9 341.0	9 625.9
Share of loans in total assets (%)	81.1	83.3	81.2	76.7	78.4	51.1	54.1	55.7	49.7	44.8
Share of deposits in liabilities (%)	31.6	28.6	29.9	32.6	37.0	65.7	61.3	65.8	74.9	71.6
Share of liabilities to MFIs in liabilities (%)	56.7	59.3	51.8	50.5	43.6	18.4	16.7	11.4	5.2	2.1
Loans to deposits ratio (%)[4]	259.2	302.4	283.7	247.7	218.6	78.8	103.8	97.1	75.6	65.7
Profitability										
ROE (%)[5]	13.5	5.7	–30.5	–12.5	7.1	10.6	–2.1	–11.1	–28.6	–36.4
ROA (%)[6]	1.2	0.4	–2.7	–1.0	0.7	0.8	–0.2	–0.8	–2.4	–2.9
Cost-to-income ratio (%)[7]	37.0	41.8	42.6	56.4	49.8	54.3	62.5	70.2	93.8	72.6
Profit margin (%)[8]	61.3	27.0	–172.1	–44.8	34.2	46.0	–5.7	–75.1	–127.0	–92.1
Capital adequacy										
CAR (%)	10.8	12.7	15.4	15.2	19.0	11.4	10.8	13.5	14.0	15.3
Tier 1 ratio (%)	9.5	11.6	11.8	11.4	15.8	10.3	8.8	11.0	11.5	12.1
Liquidity										
lr (%)[9]	46.4	48.7	64.0	57.4	49.6	62.1	56.3	61.9	75.9	74.2
Liquid assets to total assets ratio (%)[10]	15.5	13.0	14.1	19.5	17.4	37.4	34.0	31.8	37.7	39.2
Asset quality										
Share of loans loss provisions non-perfroming loans in the loan portfolio (%)	0.5	1.5	8.8	10.7	9.8	0.4	2.9	8.2	12.6	15.1
Share of loans past due over 90 days in the loan portfolio (%)	0.5	3.0	14.8	15.0	13.3	1.2	4.9	20.0	27.3	26.0

[1] Group 1 of credit institutions – credit institutions with funding received from parent banks exceeding 10% of their assets.
[2] Group 2 of credit institutions – other credit institutions.
[3] The JSC *Latvijas Krājbanka* and JSC *Parex banka* data have been excluded from the ROE, capital adequacy and liquidity ratios for 2011.
[4] General government loans and deposits excluding.
[5] Annualised profit/loss ratio to average capital and reserves of the reporting period (data of foreign credit institution subsidiaries excluding).
[6] Annualised profit/loss ratio to average assets of the reporting period.
[7] Cost-to-income ratio = (operating costs + intangible and fixed asset depreciation and disposal)/(net interest income + income from dividends + net commissions and fees + profit/loss from trades of financial instruments + financial instrument revaluation result + net ordinary income + adjustment for impairment of available-for-sale financial assets) x 100.
[8] Ratio of pre-tax profit to operating income.
[9] Liquid assets as stipulated by the FCMC (vault cash; claims on the Bank of Latvia and solvent credit institutions whose residual maturity does not exceed 30 days, and deposits with other maturity, if a withdrawal of deposits prior to the maturity has been stipulated in the agreement; investment in financial instruments, if their market is permanent, unrestricted) must not be less than 30% of banks' total current liabilities with residual maturity under 30 days.
[10] Liquid assets = vault cash + claims on central banks and other credit institutions + central government fixed income debt securities.