



LATVIJAS BANKA
EIROSISTĒMA

FINANCIAL STABILITY REPORT 2016



ISSN 2500-9729

Financial stability – the condition in which the financial system (financial intermediaries, markets and market infrastructures) is capable of withstanding shocks, without significant disruptions in the financial intermediation process and the supply of general financial services.

The purpose of the "Financial Stability Report" is to raise public awareness of development of the Latvian financial system and draw attention to systemic risks representing potential threats to the stability of the Latvian financial system.

The "Financial Stability Report" analyses and evaluates the performance of the Latvian financial system and risks, in particular focussing on the credit institution operation on the basis of financial market data available up to the end of February 2016, economic data available up to the end of March 2016 or at the moment of compiling the current report, credit institution, NBFS and financial infrastructure data available up to the end of March 2016. Forecasts are also based on the most recent available data.

The "Financial Stability Report" uses the division of credit institutions into two groups since the Latvian credit institution sector is composed of two different segments. Group 1 credit institutions comprise credit institutions granting more than 50% of their loan portfolio to residents and receiving more than 50% of their deposits from residents. The major share of funding of these credit institutions consists of resident deposits and financing provided by their Nordic parent banks. Group 2 credit institutions comprise the rest of the credit institutions, which primarily services non-residents and attract non-resident deposits (the branches of Nordic banks providing only internal support functions to their parent banks are included in this group as well). Group 2 credit institutions do not play a material role in granting loans to residents and attracting domestic deposits.

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

Braces {} enclose data on the respective period in the previous year.

Charts and tables have been compiled on the basis of the following data sources: Chart 1.1 – IMF, Charts 1.2–1.4 – Bloomberg, Chart 1.5 – Norges Bank and ValueGuard, Charts 1.6–1.9 – the CSB, Chart 1.10 – Latvijas Banka and the CSB, Chart 1.11 – the ECB, the respective national central banks and Eurostat, Chart 1.12 – the CSB, Chart 1.13 – Eurostat, Chart 1.14 – the ECB, the respective national central banks and Eurostat, Chart 1.15 – estimates by Latvijas Banka based on data of the State Unified Computerised Land Register, Chart 1.16 – estimates by Latvijas Banka based on data provided by the CSB, Latio Ltd., Ober Haus Real Estate Latvia Ltd. and Arco Real Estate Ltd., Chart 1.17 – estimates by Latvijas Banka based on data provided by the CSB, Latvijas Banka, Latio Ltd., Ober Haus Real Estate Latvia Ltd. and Arco Real Estate Ltd., Chart 2.1 – estimates by Latvijas Banka based on data of Latvijas Banka, Chart 2.2 – estimates by Latvijas Banka based on data provided by Latvijas Banka and the CSB, Chart 2.3 – ECB, Charts 2.4 and 2.5 – estimates by Latvijas Banka based on data provided by the FCMC, Charts 2.6–2.10 – Latvijas Banka, Chart 2.11 – the FCMC, Charts 2.12 and 2.13 – estimates by Latvijas Banka based on data provided by the FCMC, Chart 2.14 – the FCMC, Chart 2.15 – estimates by Latvijas Banka based on data provided by the FCMC, Chart 2.16 – the FCMC, Charts 2.17 and 2.18 – estimates by Latvijas Banka based on data of the FCMC, Charts 2.19–2.24 – Latvijas Banka, Charts 2.25 and 2.26 – the FCMC, Charts 3.1–3.3 – estimates by Latvijas Banka based on data provided by Latvijas Banka, the FCMC and CSB, Chart 3.4 – the FCMC, Chart 3.5 – estimates by Latvijas Banka based on data provided by the FCMC and Bloomberg, Chart 3.6 – the EIOPA, Charts 3.7 and 3.8 – the FCMC, Charts 4.1 and 4.2 – Latvijas Banka, Chart 4.3 – the LCD, Charts A1.1 and A1.2 – Latvijas Banka and the FCMC, Charts A2.1–A2.7 – estimates by Latvijas Banka based on data provided by Bloomberg, Latvijas Banka, the FCMC, ECB, Eurostat and the CSB, Chart A2.8 – Latvijas Banka, Chart A2.9 – estimates by Latvijas Banka based on data of Latvijas Banka, the FCMC, Bloomberg and the ECB, Tables 2.1 and 2.2 – the FCMC, Table 2.3 – Latvijas Banka and Bloomberg, Table 2.4 – estimates by Latvijas Banka.

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ABBREVIATIONS

AML/CTF – anti-money laundering and counter-terrorism financing	ESI – economic sentiment indicator
APP – asset purchase programme	ESRB – European Systemic Risk Board
BRRD – Directive 2014/59/EU of the European Parliament and of the Council establishing a framework for the recovery and resolution of credit institutions and investment firms and amending Council Directive 82/891/EEC, and Directives 2001/24/EC, 2002/47/EC, 2004/25/EC, 2005/56/EC, 2007/36/EC, 2011/35/EU, 2012/30/EU and 2013/36/EU, and Regulations (EU) No 1093/2010 and (EU) No 648/2012 of the European Parliament and of the Council	EU – European Union
CDS – credit default swap	EURIBOR – euro interbank offered rate
CET1 – Common Equity Tier 1 capital	Eurostat – statistical office of the EU
CIS – Commonwealth of Independent States	FCMC – Financial and Capital Market Commission
CISS – ESB Composite Indicator of Systemic Stress	FOP – free of payment
CPI – Consumer Price Index	FRS – US Federal Reserve System
CRD IV – Directive 2013/36/EU of the European Parliament and of the Council on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC	GAP – difference between RSA and RSL
CRR – Regulation (EU) No 575/2013 of the European Parliament and of the Council on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012	GDP – Gross Domestic Product
CSB – Central Statistical Bureau of Latvia	G-SII – global systemically important institution
DENOS – the securities settlement system of LCD	IMF – International Monetary Fund
DVP – delivery versus payment	JSC – joint stock company
ECB – European Central Bank	LCD – Latvian Central Depository
EIOPA – European Insurance and Occupational Pensions Authority	LCR – liquidity coverage ratio
EKS – Electronic Clearing System of Latvijas Banka	LGD – loss given default
	Ltd. – limited liability company
	MFI – monetary financial institution
	NBFS – non-bank financial sector
	OPEC – Organization of the Petroleum Exporting Countries
	O-SII – other systemically important institution
	PD – probability of default
	ROA – return on assets
	ROE – return on equity
	RSA – interest rate sensitive assets
	RSL – interest rate sensitive liabilities
	RWA – risk-weighted assets
	SJSC – state joint stock company
	SRB – Single Resolution Board
	SRF – Single Resolution Fund
	SRM – Single Resolution Mechanism
	SSM – Single Supervisory Mechanism
	TARGET – Trans-European Automated Real-time Gross settlement Express Transfer system
	TARGET2 – The second generation of TARGET
	US – United States of America

EXECUTIVE SUMMARY

The main systemic risks to the stability of Latvia's financial system stem from the external macrofinancial environment. The external risks are primarily associated with the high uncertainty, external demand risks, deterioration of the macrofinancial situation in Russia as well as the financial stability risks faced by the home countries of parent banks. Latvia's economic development has decelerated, yet the overall economic growth rate remains moderate and the creditworthiness of domestic borrowers continues to improve. According to the results of the stress test and sensitivity analysis conducted by Latvijas Banka, the credit institutions' capacity to absorb an increase in credit risk is high as the credit institutions are overall well-capitalised. The liquidity stress tests also suggest that the credit institutions' capacity to absorb potential liquidity shocks remains good since their liquidity ratios are high. Although the profitability ratios of credit institutions are sound, the downside risks to their profitability are growing, particularly considering the declining income base. Persistently weak lending dampens both the future income of credit institutions and the growth potential of the economy.

The main systemic risks to the stability of Latvia's financial system are as follows:

1) deteriorating external macrofinancial environment and persistently high uncertainty which might have a negative impact on the economic growth and the profitability of credit institutions;	↑
2) persistently weak lending constraining the economic growth;	↓
3) significant adjustment of real estate prices in Sweden and Norway and/or risk repricing which could have a negative effect on the borrowing terms of parent banks, their financial situation and economic growth.	→

The direction of risk is shown by an arrow, whereas the level of risk is indicated by colours.

Low	Below average	Average	Above average	High
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The main systemic risks to the stability of Latvia's financial system are still mainly related to the external macrofinancial environment. External risks are above average and growing. This is mainly determined by the global growth risks: slowdown of growth and imbalances in the emerging economies (including China, Russia and Brazil) which, in turn, impairs sustainable growth prospects in the advanced economies. External uncertainties are amplified also by the growing geopolitical risks both in Europe and on a global level.

The FRS decision to return to tightening its monetary policy has raised concerns over the divergent monetary policies pursued by major central banks and the potential effects of higher federal funds rates on the financing costs and capital flows in the advanced economies. The subsequent downward revision of the expected pace of policy tightening by the FRS, eased the concerns over the global implications of the monetary policy divergence. Nevertheless, uncertainties remain.

With the oil supply substantially exceeding its demand, the prices of oil and other commodities have dropped significantly. The low oil prices have a downward effect on the economic growth of the oil-exporting countries, including Russia. At the same time, the overall positive effect of the low oil prices on the economic growth of the oil-exporting countries is expected to decrease.

Imbalances faced by the advanced economies, geopolitical risks and commodity market developments caused a significant rise in volatility on the global financial markets. The euro area experienced a significant drop in the prices on corporate securities and shares, particularly those issued by banks. Nevertheless, the euro area financial markets remained fairly resilient to the rising global financial market tensions and the Eurosystem's expanded APP was a stabilising factor. Growing financial market volatility suggests that the risks associated with a sudden risk repricing and the low interest rate environment have increased further, and in some market segments (shares and riskier debt securities)

the risks have already partly started to materialise. The risks are exacerbated by the low liquidity in individual segments of the financial markets, high correlation between the prices on various assets, the low risk premia as well as the potential increase in the monetary policy divergence.

External factors have resulted in a minor downward revision of the euro area GDP growth forecasts and the ECB continues to pursue an accommodative monetary policy. Weak growth, risks associated with a sudden risk repricing, the low interest rate environment as well as the high level of non-performing assets in credit institutions of some euro area countries increase the profitability risks for the euro area banks and non-bank financial institutions. The large indebtedness of the government and non-financial private sector also poses a potential financial stability risk for the euro area. Further strengthening of the financial stability of the euro area was supported by the launching of the SRM on 1 January 2016.

The central banks of Sweden and Norway continue monetary easing. Supported by accommodative monetary policy, a fast increase in lending and a rise in government expenditure, Sweden's economic growth rate is relatively high. Meanwhile in Norway, the GDP growth is dampened by the low oil prices. Notwithstanding the implemented macro-prudential supervision measures, the financial stability risks associated with the imbalances in the real estate market and the high level of household indebtedness continue to accumulate in Sweden and Norway. The potential negative effects, should those risks materialise, are amplified by the parent banks' reliance on market financing and their significance in the financial systems of the Nordic-Baltic countries. At the same time, the financial performance of the parent banks is strong and they have relatively high capital requirements. Their credit risk is still viewed as low by the financial markets.

Should the above-mentioned risks emerge, their potential impact on Latvia's financial stability via the financing channel would be lower than before, as the reliance of the Latvian subsidiaries on parent bank financing has considerably decreased. However, in the event of a severe shock parent banks could withdraw the available funding from subsidiaries to meet the group's needs. Considering the trade relations between the Nordic-Baltic countries, growth in Latvia and also in the region would be affected through the trade and confidence channels.

In addition to other external factors, the development of the Baltic region was hindered by the deteriorating macrofinancial situation in Russia. The fall of Russia's GDP is decelerating, yet the recession continues. The negative effect of the low oil prices on Russia's federal budget and economy is significant. Negative contributors are also the depreciation of the Russian ruble, geopolitical factors and EU sanctions. The solvency risks of Russia's households, non-financial corporations and banks are rising.

Latvia's trade with Russia has shrunk significantly; therefore, the potential direct impact of Russia's risks via the trade channel has decreased. Nevertheless, second-round effects on external demand from other trade partners could also be observed. The heightened instability in Russia continues to pose a risk for non-financial corporations exporting to Russia and for some credit institutions with large exposures to CIS countries relative to their capital.

Russia's risks have already impaired the quality of loans to non-residents; nevertheless, the quality of the aggregate loan portfolio has not decreased, as the share of Russia-related non-resident loans in the portfolio is small. The risks are mitigated by the generally high capitalisation level of credit institutions. Within the framework of the supervisory review and evaluation process (Pillar 2), the FCMC has set higher additional capital adequacy requirements for credit institutions granting loans to non-residents.

Latvia's economy continues to develop moderately, yet its growth rate has decelerated. The main risks to Latvia's future economic growth are still related to the external uncertainties and weak investment development, inter alia limited also by the delays in

the absorption of EU funds. Domestic growth is primarily driven by private consumption which, in turn, is fuelled by the robustly rising wages and salaries. At the same time, this rise which has been persistently higher than the productivity gains leaves concerns over potential risks to competitiveness. Overall, the financial stability risks stemming from the domestic macrofinancial environment are limited.

Against the backdrop of a moderate economic growth, the financial position of domestic borrowers continues to improve and their credit risk is decreasing, as suggested also by the improvement of the quality of the domestic loan portfolio. The creditworthiness of households is supported by the steady growth of wages and salaries and the low inflation. The financial performance of non-financial corporations has remained broadly unchanged despite the complicated external circumstances. Non-financial corporate debt and household debt continues to shrink and is low by international standards.

At the same time, non-financial corporations have relatively low equity and lack sufficient loan collateral which has a negative effect on both the demand and supply of loans. The low level of household income and savings also limits the capacity of households to fund the first down payment and prevents lending to households.

Although credit institutions have slightly eased their credit standards and the demand for loans has somewhat improved, overall both the supply of loans and the demand remains low. New loans are gradually increasing, however, the annual rate of change in loans to domestic non-financial corporations and households remains negative. Persistently weak lending may weigh down on the economic growth and credit institutions' income.

With the domestic loans shrinking and deposits with credit institutions growing, the loan-to-deposit ratio has decreased considerably. The role of deposits continues to increase in the credit institutions financing structure. Resident deposits are growing steadily, whereas non-resident deposits have been shrinking since the end of 2015. This is mainly attributed to the high base and the significant tightening of the requirements in the area of AML/CTF. Following a tightening of the AML/CTF requirements on an international level, stricter requirements governing the management of the AML/CTF risk and in-depth customer identification have been imposed on credit institutions. External independent audits are carried out in credit institutions and the capacity of the supervisory authorities is being strengthened. The above measures are essential to secure further sustainable development of the Latvian financial sector.

Overall, the liquidity risk of credit institutions is low as the share of liquid assets in the total assets of credit institutions of both groups is large. The low interest rate environment has prompted credit institutions to increase their holdings of liquid securities and deposits with Latvijas Banka. Both credit institution groups more than fulfil the minimum liquidity requirements set by the FCMC and the LCR requirement introduced as of October 2015. The results of the liquidity stress tests conducted by Latvijas Banka show that the credit institutions' capacity to absorb potential liquidity shocks remains high.

In 2015, the aggregate profit of credit institutions grew by one third. ROA and ROE ratios are high, and the spread between lending and deposit rates remains wide. Profitability is supported by the improving creditworthiness of the domestic borrowers. At the same time, the main income source of Group 1 credit institutions (loan portfolio) continues to shrink and the opportunities of any further cuts of interest expenditure, loan loss provisions and administrative expenses have been almost exhausted. The low interest rate environment also limits profitability prospects. The business volumes and the so far high profit ratios of Group 2 credit institutions most likely will decrease following the tightening of the AML/CTF requirements. Some Group 2 credit institutions also have to take account of the potential risks associated with their investments in the CIS countries. In view of the above profitability-dampening factors, the strategies chosen by credit institutions to maintain profits will be crucial.

The capital adequacy ratios of credit institutions still exceed the regulatory minimum requirements considerably, and the solvency risk is overall low. Some Group 2 credit institutions face the risk of decreasing capitalisation should their investment in the CIS countries be affected by materialisation of significant shocks. The results of the sensitivity analysis and macroeconomic stress test conducted by Latvijas Banka suggest that the capacity of credit institutions to absorb a potential rise in credit risk (including Russia's country risk) is overall good. Nevertheless, some institutions would need to strengthen their Tier 1 capital.

Based on the Credit Institution Law transposing the requirements of CRD IV, the FCMC has identified six systemically important credit institutions (other systemically important institutions; O-SIIs). Depending on their score, the supervisory authority may impose higher requirements (including a requirement to maintain an O-SII buffer of up to 2% of RWA) on those institutions. The decision on the O-SII buffer requirement is planned to be made in 2016.

The growth of NBFS was relatively buoyant in 2015. This was supported by increased household savings in pension funds. The growth of loans granted by NBFS (mainly financial leasing granted to non-financial corporations) also accelerated. The amount of new loans granted to households by NBFS continued to grow rapidly. However, this was only partly reflected in the changes in the stock of NBFS loans granted to households which can be largely explained by an increase in assigned debts (primarily in the segment of instant loan providers). Meanwhile, the growth of insurance corporations decelerated. In the low interest rate environment, the long-term profitability risk of NBFS, particularly in the case of life insurance corporations, has somewhat increased. Higher volatility observed on the global financial markets in 2015 compressed the return on investment made by insurance corporations and pension funds. Overall, the share of the NBFS assets in Latvia's financial sector remains quite small and the links between the NBFS and the credit institution sector do not pose significant risks to the overall financial stability.

An assessment of the financial risk of the systemically important market infrastructures – TARGET2-Latvija and DENOS – which was carried out in 2015, points to a low systemic risk probability in those systems. The above infrastructures provide an efficient and secure payment and settlement environment and their smooth operation contributes to the financial stability.

Recommendations

At the current juncture, the systemic risks to Latvia's financial stability are overall limited and the capacity of Latvia's credit institutions to absorb a potential increase in the systemic risks is good; nevertheless, there are several measures that could contribute to the financial stability.

1) Overall, the credit institutions' capitalisation level and capital quality is high. Considering the lesson learned from the previous crisis that a higher quality capital is better capable of absorbing the potential losses, the strengthening of Tier 1 capital requirements for credit institutions with a significant share of Tier 2 capital in total capital would improve their resilience.

2) Pursuant to the CRR, a common 60% LCR requirement for credit institutions entered into force in the EU on 1 October 2015, and a 70% LCR requirement is applicable as of 1 January 2016. Until the implementation of a 100% LCR requirement in 2018, the current liquidity requirements established by the FCMC are also effective and tighter individual liquidity requirements will be imposed on the credit institutions with a particular business model within the framework of the supervisory review and evaluation process (Pillar 2). Higher liquidity requirements will also have to be applied to those credit institutions beyond 2018; therefore, it is necessary to explore the CRR provisions on imposing additional liquidity requirements on credit institutions which have to maintain larger liquidity buffers.

3) Strengthening of Latvia's financial stability requires the implementation of high AML/CTF standards. Tightened requirements in the area of AML/CTF and the ongoing measures to strengthen the supervisory capacity are highly welcome. The latter in turn could be enhanced by increasing the annual contributions of the market participants to the FCMC in proportion to their involvement in the business area associated with larger AML/CTF risks.

4) To prevent the risk of persistently weak lending, broader economic policy measures, laying basis for sustainable lending growth and improving confidence, are necessary. It is important to promote investment-friendly environment and facilitate more efficient absorption of EU funds, enhance the performance of courts and the protection of investor rights, combat the shadow economy and improve the predictability of tax policy and economic policy.

1. MACROFINANCIAL ENVIRONMENT

External macrofinancial risks have heightened primarily on account of intensifying global growth risks and elevated tensions in the global financial markets. GDP forecasts for the euro area and some of Latvia's trading partners have been slightly revised downwards. Risks related to Russia are still high. In home countries of parent banks, risks are accumulating due to unbalanced development of the housing market and household debt. The Latvian economy continues on a moderate, albeit somewhat slower-than-previous development track. Financial vulnerability of credit institution customers continues to diminish. Despite the complicated external environment, profitability of non-financial corporations is not deteriorating overall. Household creditworthiness is supported by steeply rising wages, low inflation and interest rates. A moderate rise in real estate activity and prices can be observed. The market outlook depends, to a large extent, on the revival of lending.

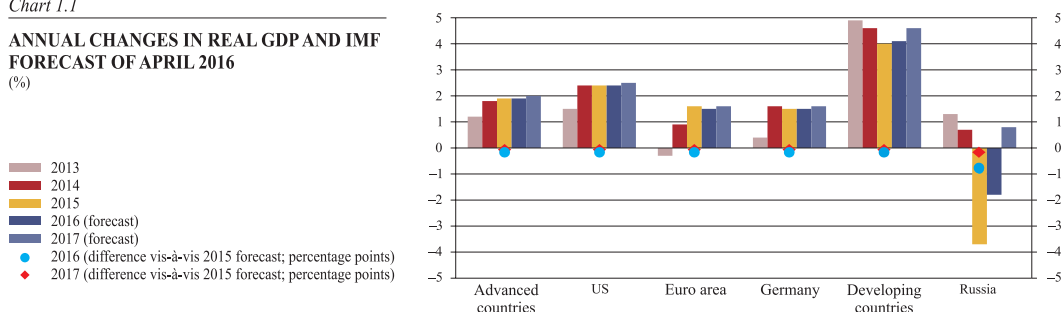
1.1 External macrofinancial environment

Risks of the external macrofinancial environment have aggravated. This heightening is driven by risks to economic growth in developing countries and the world on the whole, uncertainty about potential global effects of the FRS's monetary policy decisions, and rising financial market tensions. Risks associated with the low interest rate environment and unexpected risk premium adjustments keep on increasing. The ECB continues the pursuit of accommodative monetary policy, thereby supporting the economy and lending in the euro area; nevertheless, the euro area outlook has been slightly revised downwards due to the impact of external factors. Low oil prices act as a drag on the growth outlook of commodity exporters. In Russia, macrofinancial circumstances continue to deteriorate. In Sweden and Norway, home countries of the largest parent banks, risks are accumulating due to unbalanced development of the housing market and a bulky household debt.

Global economic growth has lost some momentum, and somewhat slower than previously expected global recovery seems more likely in the upcoming two years (see Chart 1.1). The heightening of risks is basically determined by the economy losing momentum or a decline taking place in some major developing countries (including China, Russia and Brazil). Adjustments in China's stock market and in the value of its national currency renminbi have given rise to speculations about the possibility of the so-called hard landing in China, second largest economy of the world, and falling growth dynamics also in other developing countries as well as about the contracting demand for commodities, oil including. Conditions of financing in developing countries are also impacted by the FRS increasing its monetary policy tightness and aggravation of geopolitical tensions.

Chart 1.1

ANNUAL CHANGES IN REAL GDP AND IMF
FORECAST OF APRIL 2016
(%)



GDP forecasts for advanced economies have also been lowered. In 2016, the rate of economic growth in these countries is likely to remain flat or slightly behind the previous year. Leading central banks of the world keep to their accommodative monetary policies. Amidst aggravating external risks, the ECB and the Bank of Japan continue to increase the range of supportive monetary policy measures. While the FRS resolved in December

2015 to resume raising the base rate, an announcement on slower-than-projected pace of US interest rate hikes was made as early as the beginning of 2016 in response to the deterioration of financing conditions in financial markets and deceleration of the US economic advance. Worries about the effects of diverging monetary policy regimes abated, yet uncertainty is still in place.

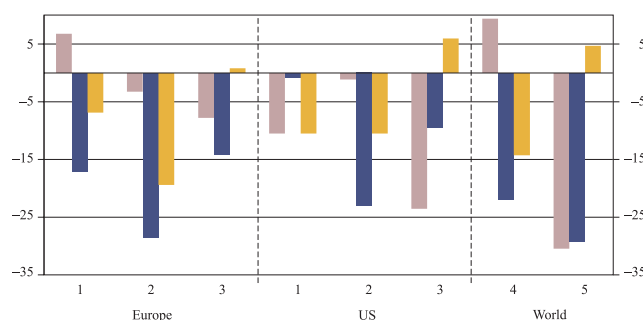
In the euro area, the economic recovery is in progress, albeit its pace is likely to lose some momentum from what has previously been expected due to external factors. According to the ECB's March projections, euro area annual GDP could pick up 1.4% (1.7% according to previous projections) in 2016 and 1.7% (1.9% according to previous projections) in 2017. The ECB continues to hold to its accommodative monetary policy, while the Eurosystem's expanded APP is supporting the recovery of lending and economic growth in the euro area. Though the revival of lending remains slow overall, it has slightly increased after the fall of 2012–2014. The expanded APP plays an important role in reducing bank financing costs and credit spreads in euro area countries. On the whole, a significant risk of worsening fiscal circumstances and persisting sovereign debt is still in place in the euro area, particularly on the back of modest growth prospects and higher geopolitical tensions.

Financial markets in the euro area and globally record a marked intensification of volatility, which along with other factors is driven by deteriorating liquidity conditions in some financial market segments and adjustments following a period of very low volatility, growing risk appetite and price rises in many asset classes. Since spring 2015, several significant stress episodes have occurred, among them the euro area bond price decline in May and June 2015 as well as world stock price adjustments in August 2015 and early 2016. Along with the global financial market developments, the heightening of tensions in European financial markets was driven also by a number of domestic factors, including recent banking sector developments, uncertainty surrounding the solution to the Greek sovereign debt issue, elections in Spain, public discourse about the EU membership in the UK, refugee crisis, etc.

Chart 1.2

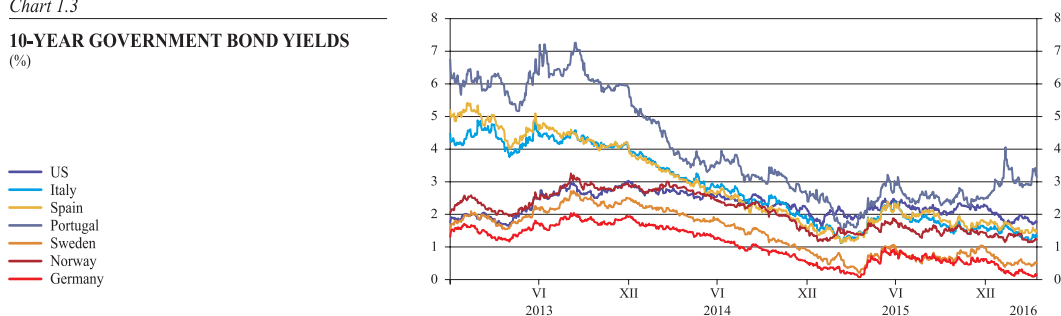
CHANGES IN STOCK INDICES (IN FOREIGN CURRENCY) AND OIL PRICES (%)

- 2015
- From the beginning of 2016 to 11 February 2016
- From the beginning of 2016 to 15 April 2016
- 1. Stocks
- 2. Bank shares
- 3. Oil and gas company shares
- 4. China stock market index
- 5. Oil prices



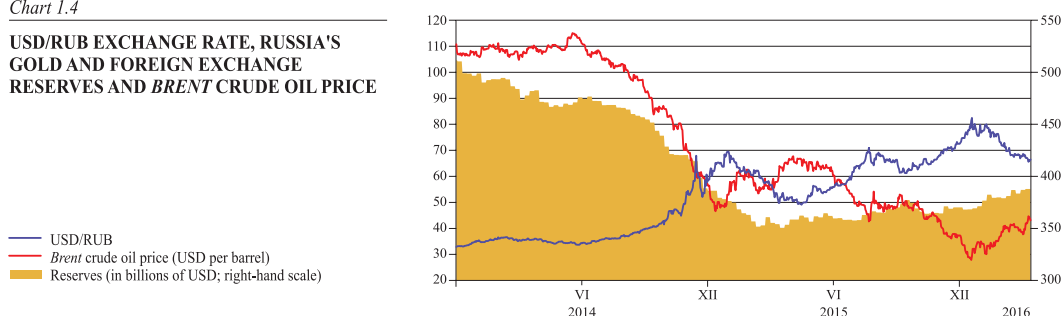
At the beginning of 2016, worries about the economic growth in developing countries and across the globe had a serious impact on bank share prices everywhere in the world (see Chart 1.2). In Europe, the decline in banking sector share prices even outpaced that in oil and gas company share prices. This dynamics was driven by concerns about the toxic-asset-related problems in Italian banks, the reaction of bank investors and creditors to individual bank regulatory solutions, and a generally weak fourth quarter financial performance of banks with the effect of deepening anxiety regarding bank profitability and solvency. Prices of the European bank CDS also grew. However in general, the European banks are financially stronger than a couple of years ago, and their investment in China and other developing countries are overall modest. Moreover, the Eurosystem's supportive monetary policy is limiting liquidity and financing risks for euro area banks. A process of building a fully-fledged banking union, a significant aspect for strengthening financial stability in the euro area (Latvia including), is in progress: the SSM has been functioning for more than a year now, and the SRM was launched at the start of 2016.

Chart 1.3

10-YEAR GOVERNMENT BOND YIELDS (%)

Volatility has also intensified in the corporate and government bond markets (see Chart 1.3), in the government bond market though to a lesser extent than in the stock and commodity markets. In general, yields on euro area government bonds remain at a low level (except in Portugal, Cyprus and Greece). Amidst the environment of low interest rates, at the same time, scarce liquidity in some financial market segments (e.g. secondary bond markets), high price correlation across different asset classes, heightening macroeconomic risks, banks facing weaker profit opportunities and extra risk taking contribute to the accumulation of risks to financial stability in the euro area and other regions. Risks related to the low interest rate environment and sudden corrections in risk premia are augmenting and in some market segments have already partly materialised (e.g. in stock and high-risk debt securities market).

Chart 1.4

USD/RUB EXCHANGE RATE, RUSSIA'S GOLD AND FOREIGN EXCHANGE RESERVES AND BRENT CRUDE OIL PRICE

Oil prices have declined notably, in February 2016 reaching the lowest level since 2003 (see Chart 1.4). The recurrence of oil price hikes is restricted by ample oil production volumes of OPEC countries, lifting of the sanctions against Iran, slow reduction of US shale oil production volumes, and a weaker oil demand from developing countries. While on the whole falling oil prices have had a positive impact on the euro area economies (Latvia including) thus far, the overall favourable contribution from low oil prices to the growth in oil-importing economies is likely to abate in the future. Low oil prices decelerate economic growth in oil-exporting countries (Russia including), accordingly affecting Latvia's external demand.

External risks to Latvia's financial stability continue to be aggravated by the worsening macrofinancial situation in Russia, where it is driven by low oil prices, geopolitical factors, structural imbalances of the economy, and the extension of EU sanctions. Russia's GDP declined by 3.7% in 2015, which was less than anticipated yet triggered by a sizable contraction in imports and, consequently, more bulky net exports. Although Russia's economic decline is expected to lose some momentum in 2016, recession will persist. Low oil prices weigh substantially on the federal budget and country's economy. According to the estimates of the central bank of the Russian Federation, the two national funds – the Reserve Fund and the National Welfare Fund – might have run empty by 2019. This development could leave some effect also on the volumes of gold and foreign currency reserves. The substantial depreciation of the Russian ruble (see Chart 1.4) boosts risks to creditworthiness of Russian households, corporations and banks. Even though Latvia's trade contacts with Russia have shrank, Russia's economic recession, depreciation of

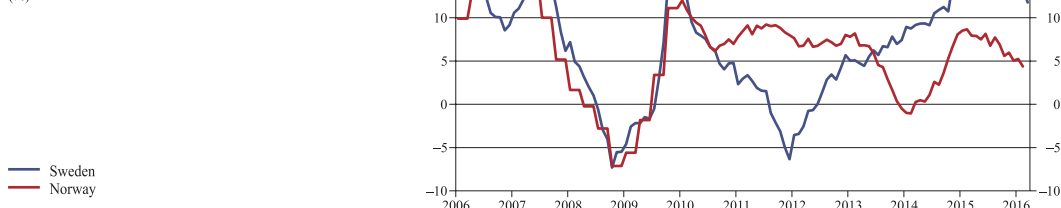
the Russian ruble and potential tightening geopolitical factors may incur extra risks to those non-financial corporations that depend to a large extent on the Russian market; these factors can likewise affect the quality of both loans issued to CIS residents and investments made in CIS-issued securities.

In home countries of the largest parent banks of Latvia's credit institutions, macrofinancial situation has become less homogeneous in terms of economic growth. Given the easing monetary policy and steeply growing lending in Sweden, the country's economy is recording one of the highest growth rates in Europe, with growth forecast for both 2016 and 2017 reaching 3%. Meanwhile, inflation is still low in Sweden, and *Sveriges Riksbank* is proceeding with lowering the base rate and implementing the government asset purchase programme. In Norway, at the same time, the economic growth has slowed due to low oil prices. In 2015, Norway's mainland GDP¹ expanded by a meagre 1.0%, and the central bank of Norway predicts an even weaker growth for 2016. That is why it is proceeding with lowering the base rate.

The hikes in housing prices in Sweden and Norway moderated somewhat in 2015 and early 2016 (see Chart 1.5), albeit risks related to housing market imbalances and large household debt do not recede. Given the dependence of Nordic banks on short-term market financing and market confidence, it is a noteworthy development. Bank supervisory measures implemented thus far in Sweden have proved insufficient to reduce risks, hence additional steps, including stronger framework of macroprudential supervision, are needed. At the beginning of 2016, rising prices of bank CDS in Europe overall triggered a moderate rise in bank CDS prices also in Sweden and Norway, yet their credit risk is still assumed to be low. In general, the financial performance of Nordic parent banks is robust and their overall capital requirements are rather high.

Chart 1.5

**ANNUAL CHANGES IN HOUSING PRICES
IN SWEDEN AND NORWAY**
(%)



1.2 Domestic macrofinancial environment

The Latvian economy is continuing on a moderate upward growth trend whose pace is albeit slowing. Basic risks to Latvia's further economic development are still to be associated with external uncertainties and weak investment growth limited also by delayed approval of the documents of the new EU funding programming period. Private consumption, supported by significantly rising labour remuneration, remains the main engine behind domestic development. Along with the wage rises, which are persistently outpacing productivity improvements, concerns about potential risks to competitiveness are still in place. In general, risks to financial stability from the domestic macrofinancial environment are limited at this juncture.

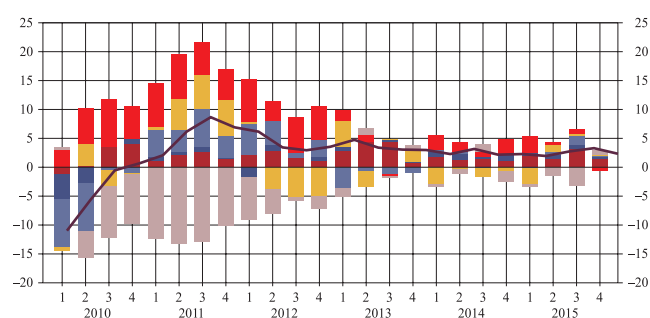
In 2015, Latvia's GDP picked up 2.6% (see Chart 1.6). In the meantime, the economy is losing some momentum due to external factors and growing uncertainty. On account of substantially weaker economic performance in the fourth quarter of 2015, deterioration of the global economic outlook (including some trading partners of Latvia), strong macrofinancial risks in Russia, geopolitical tension and weak investment dynamics, the GDP forecast for 2016 was revised downwards, to 2.3%. Similar to the past year, slower GDP growth by sector will depend on construction and transport. Manufacturing will likewise contribute less to the GDP growth than in 2015.

¹ GDP growth, excluding crude oil and gas production as well as pipeline and sea transport.

Chart 1.6

BREAKDOWN OF GDP ANNUAL CHANGES
(demand side; seasonally adjusted data; percentage points)

Imports of goods and services
Exports of goods and services
Changes in stocks
Gross fixed capital formation
Public consumption
Private consumption
GDP annual changes (%)



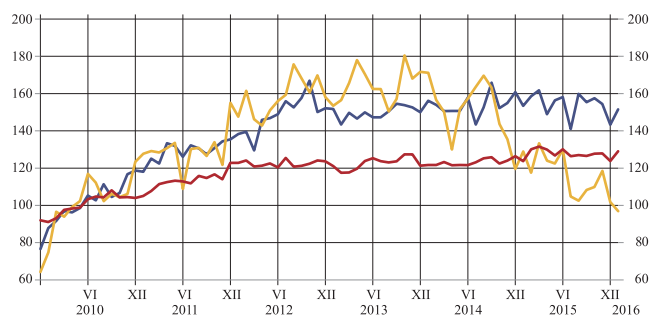
On the expenditure side similar to 2015, private consumption, which is supported by significant hikes in real wages and gradual improvements in employment, is likely to continue as a driver behind the economic growth in 2016 as well. The increase in private consumption is albeit rather modest and falling behind the household income growth as households are boosting up their savings. The fast upswing in labour remuneration, at the same time, is giving rise to concerns about its potential impact on economy's competitiveness as growth in remuneration continuously outpaces that in labour productivity. Currently, there are no signs that the steep wage rise has caused stronger macroeconomic imbalances, as estimations show that unemployment is close to its natural level, labour shortages are moderate, and overall corporate profitability has not thus far deteriorated.

Low energy and commodity prices continue to exert an overall positive impact on domestic consumption and corporate costs. However, this impact is close to saturation in terms of consumption (e.g. the contribution to overall retail trade growth from fuel retail trade shrank in the fourth quarter). Moreover, heterogeneous effects of low oil prices on external demand should also be accounted for.

Chart 1.7

DYNAMICS OF GOODS EXPORTS AND MANUFACTURING OUTPUT
(seasonally adjusted data; 2010 = 100)

Exports of goods (nominal)
Exports of goods to Russia (nominal)
Manufacturing output



The slow and uneven development across the euro area countries as well as the substantial fall in the demand from Russia and depreciation of the Russian ruble notwithstanding, exports of Latvian goods and services continued to augment in 2015 (by 1.3% and 4.9% respectively). However, as the export dynamics weakened towards the end of 2015 and in early 2016 (see Chart 1.7) and on the back of uncertainty related to the global economic outlook and reduced GDP growth projections for some trade partners, the overall growth perspective of Latvia's exports of goods for 2016 should be treated with some caution.

Vis-à-vis 2014, exports to Russia recorded a marked contraction in 2015 (including a decrease in exports of goods by 24.4%). In 2016, they are unlikely to fall to similarly strong extent, since Latvia's overall economic vulnerability to contracting Russian imports is abating along with Russia losing its importance in foreign trade and Latvia's exporters gradually redirecting their produce to other export markets. In the meantime, several sectors remain dependent on the developments in Russia's market (e.g. transport, pharmaceutical industry and food processing).

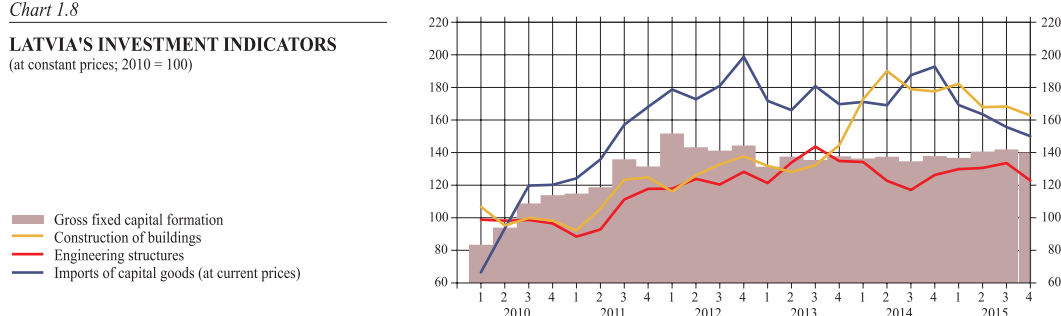
Investment activity remains generally weak, weighing on medium-term economic growth potential (see Chart 1.8). While over 2015 investment volumes had increased overall,

the fourth quarter of the year saw some investment volume declines, and uncertainty associated with the future growth in combination with external risks is a serious hindrance to a steeper revival of investing. In addition, some negative impact on investment expansion and recovery of non-financial corporations' lending also comes from domestic factors (e.g. changing tax policy and delayed absorption of EU funds).

Chart 1.8

LATVIA'S INVESTMENT INDICATORS

(at constant prices; 2010 = 100)



Domestically, Latvia's financial market has been affected by the Eurosystem's expanded APP. Starting with March 2015, also Latvijas Banka began the purchases of Latvian government securities. The Eurosystem's expanded APP boosted the lending capacity of credit institutions, which, among other things, is demonstrated via the high level of credit institutions' excess reserves (3.7 billion euro in the reserve maintenance period ending on 15 March 2016). These credit institution resources could be partly used as loans to finance the economy. As a result of expanded APP, interest rates on euro bonds declined, enabling the bond issuers to boost supply and the investors to rebalance their investment portfolios. The stock of corporate debt securities denominated in all currencies and registered with the LCD amounted to 1.26 billion euro (an increase of 36.1%). The long-term financing capacity of the Latvian government is continuously improving.

1.3 Financial vulnerability of credit institution customers

Financial vulnerability of credit institution customers is decreasing. Improvements in household creditworthiness are driven by steeply rising wages, gradually growing employment, low inflation, easing debt burden and low interest rates. Nevertheless, household incomes and savings still are at a relatively low level. Notwithstanding swiftly rising labour costs and complex external developments, non-financial corporations are generally maintaining their profitability. Their debt burden is diminishing. At the same time, the equity ratio of non-financial corporations remains low, thus restricting lending growth. Activity and prices in the real estate market tend to rise slowly. As wages are growing faster than do prices of housing, affordability of housing is somewhat improving.

1.3.1 Financial vulnerability of households

Improvements in household creditworthiness are supported by substantially rising remuneration, gradually better labour market conditions and low inflation. In the fourth quarter of 2015, real net wages of employees picked up 8.0% year-on-year (see Chart 1.9). They are expected to go up also in the future, albeit at a pace slower than previously, with fewer changes in tax legislation serving as an additional supportive factor². The situation in the labour market, by contrast, is likely to remain flat in the near future.

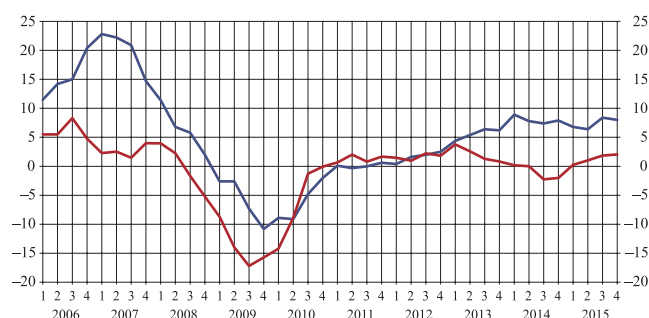
Also changes in the household consumption structure testify to better purchasing power of the population, with spending for basic goods and services in this structure shrinking on account of both growing income and low inflation. However, despite higher disposable income households increase consumption cautiously and save increasingly.

² A more moderate increase in minimum wages, restricted personal income tax relief, cancelled previously planned reduction of personal income tax.

Chart 1.9

**ANNUAL GROWTH RATE OF
EMPLOYMENT (15–74 YEARS OF AGE) AND
REAL NET WAGES
(%)**

— Real net wages
— Employment (15–74 years)

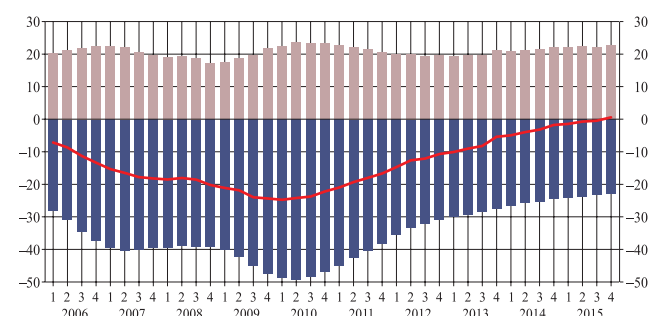


In 2015, household deposits with MFIs increased by 6.3%, the ratio to GDP reaching 22.7% (37.3% of household disposable income) towards the end of the year. Other types of household savings, particularly Pillar 3 retirement savings, likewise grew particularly strongly in 2015. For the first time since 2004, household deposits with MFIs have exceeded household debt to MFIs, and, at the end of 2015, the household net position to MFIs was 0.6% relative to GDP (see Chart 1.10).

Chart 1.10

**HOUSEHOLD DEPOSITS WITH MFIs,
LIABILITIES TO MFIs AND LEASING
COMPANIES, NET POSITION TO MFIs AND
LEASING COMPANIES
(% of GDP)**

■ Household deposits with MFIs
■ Household liabilities to MFIs and leasing companies
— Household net position to MFIs and leasing companies

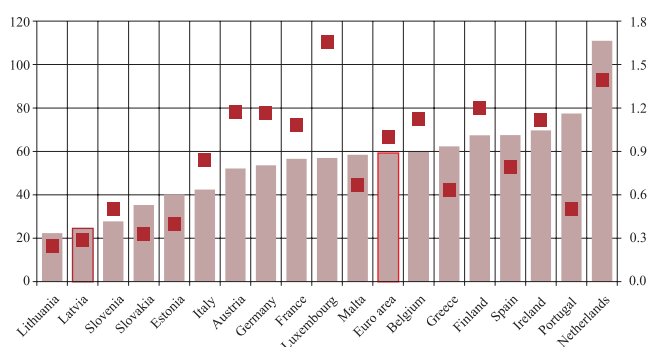


Meanwhile, household debt is progressively melting (yet at a slower pace than previously). At the end of 2015, the ratio of household debt to MFIs and leasing companies relative to GDP was 23.0% (37.7% of household disposable income). Household debt in Latvia ranks among the lowest in the euro area and so does household income (see Chart 1.11). From the point of view of credit institutions³, the low levels of income and savings are deemed to be major factors restricting lending to households.

Chart 1.11

**TOTAL HOUSEHOLD DEBT (LOANS)
AND NET ANNUAL INCOME TO EURO
AREA AVERAGE
(% of GDP)**

■ Total household debt at the end of 2015 (% of GDP)
■ Average net annual income per household with two children and two working members vis-à-vis euro area average in 2014 (times; right-hand scale)



Given the diminishing household debt and persisting low interest rates, household interest payment burden continues on a downward trend. The ratio of household annual interest payments to GDP fell to 0.8% in the fourth quarter of 2015 (1.3% of household disposable income). The difference between recognised and calculated interest payments continued to decline in 2015, to 0.1 percentage point at the end of the year, pointing to certain recovery in household creditworthiness and improvements in interest payment behaviour.

³ Bank lending surveys organised by the ECB.

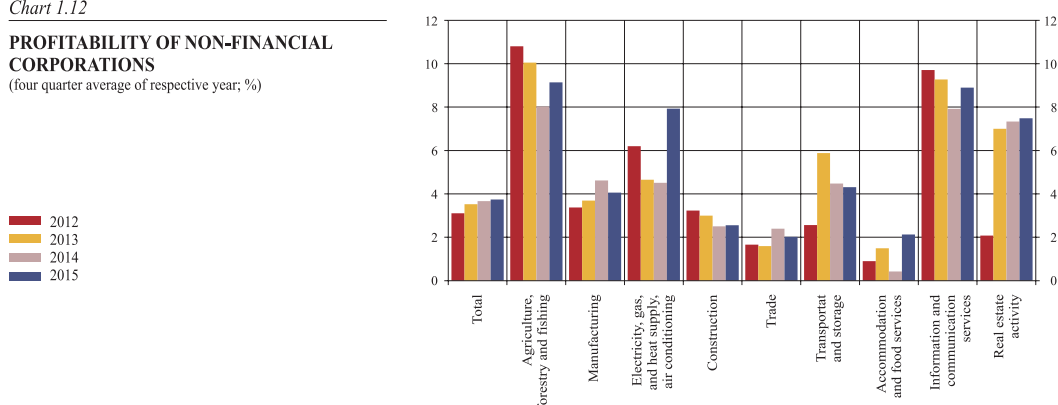
1.3.2 Financial vulnerability of non-financial corporations

The overall financial situation of non-financial corporations did not change significantly in 2015. Due to external and internal factors, the turnover of non-financial corporations slightly contracted overall in 2015 (by 1.4%), whereas their total profitability remained at the level of the previous year (3.7%). Profitability dynamics is not homogenous across sectors: in 2015 vis-à-vis the previous year, all sectors, except manufacturing, transport and storage as well as trade where it deteriorated, recorded profitability improvements (see Chart 1.12). Despite complex external circumstances and notably rising labour costs, non-financial corporations generally have been able to preserve profitability via optimising other expenditure. Non-financial corporations also benefit from falling fuel and other energy resource prices. However, if the pace of wage growth exceeds that of productivity for a protracted period, concerns about non-financial corporations' competitiveness, particularly in markets with falling prices, strengthen.

Chart 1.12

PROFITABILITY OF NON-FINANCIAL CORPORATIONS

(four quarter average of respective year; %)

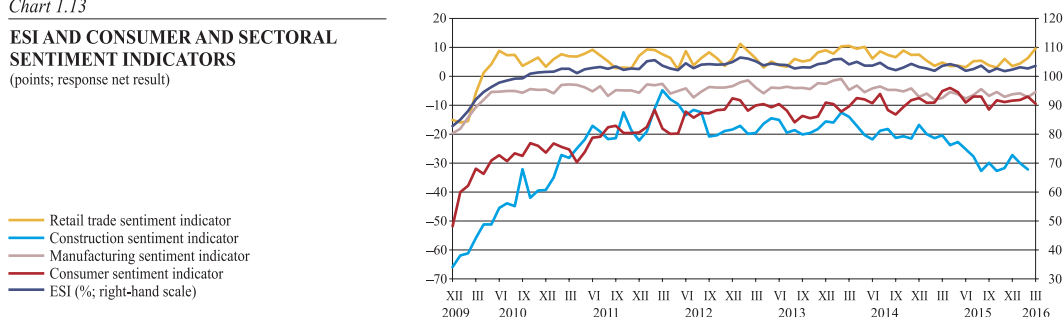


In the course of the last year, ESI has not changed significantly and slightly exceeds 100% (see Chart 1.13). This indicates that business and consumer sentiments are generally positive. By sub-component, however, the trend of construction sector's sentiment is pronouncedly downward. To a large extent, it is determined by the delayed absorption of EU funding, absence of state and municipal orders, tighter requirements for the entitlement to building permits, and amendments to the Insolvency Law and Immigration Law of the Republic of Latvia, which have triggered a fall in residential construction against the high base of the previous year. Other subcomponents of the index fluctuated within a narrow range over the past year, suggesting some sort of stability even in the face of external uncertainties.

Chart 1.13

ESI AND CONSUMER AND SECTORAL SENTIMENT INDICATORS

(points; response net result)

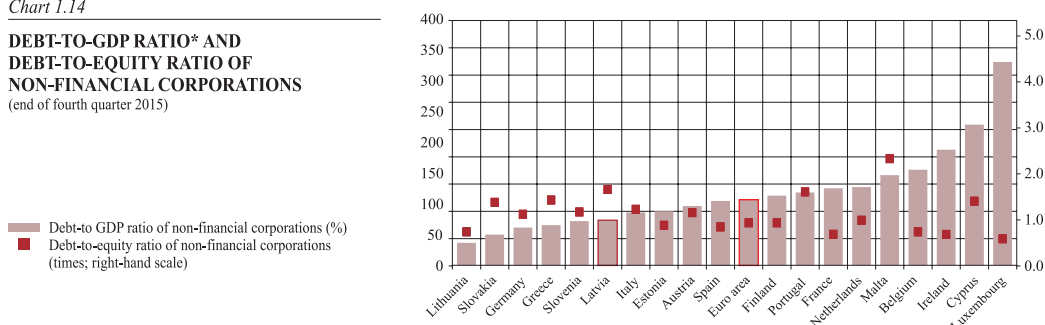


The debt burden of non-financial corporations continues to decrease. The ratio of their total debt to GDP narrowed from 75.5% at the end of 2014 to 73.2% at the end of 2015, whereas the ratio of their debt to MFIs and leasing companies relative to GDP shrank from 30.7% at the end of 2014 to 29.6% at the end of 2015. Vis-à-vis other euro area countries, the debt of Latvian non-financial corporations is at a low level (see Chart 1.14), while, at the same time, their debt-to-equity ratio is still rather high. However in 2015, this ratio was on a continuous downward track, shrinking from 1.83 at the end of

2014 to 1.67 at the end of 2015, and, as a result, bringing about some improvement in the shock-absorption capacity of non-financial corporations. Non-financial corporations retain good interest payment making capacity, with their interest payment ratio standing at 6.2 at the end of 2015 (6.4 at the end of 2014).

Chart 1.14

DEBT-TO-GDP RATIO* AND DEBT-TO-EQUITY RATIO OF NON-FINANCIAL CORPORATIONS
(end of fourth quarter 2015)



* Non-financial corporations' debt comprises debt securities and loans as well as insurance, pension and standard guarantees.

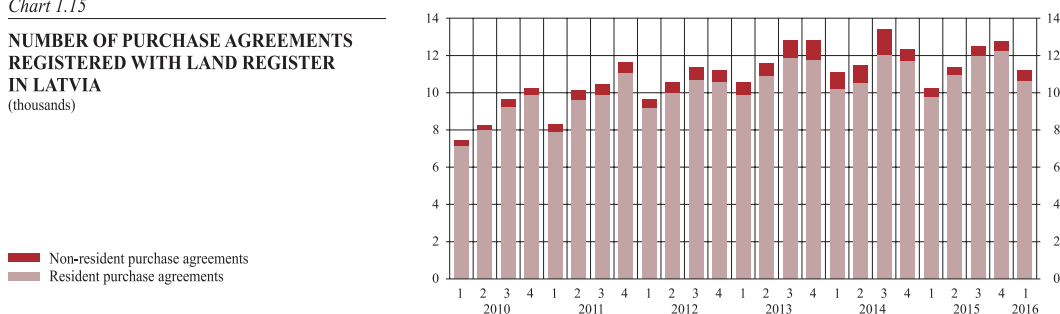
With the amendments to the Insolvency Law that substantially increase the responsibility of board members in insolvency proceedings, the number of insolvency cases filed by non-financial corporations dropped notably, by 16.4%, in 2015. The number of liquidated enterprises, in turn, in 2015 vis-à-vis 2014 increased by 57%. It can primarily be explained by a better organised business environment (including the removal from registers of non-financial corporations not engaging in economic activity for a prolonged period). The number of newly registered companies is falling progressively. Thus in 2015, the number of new non-financial corporations fell short of that in 2014 by 10%.

1.3.3 Real estate market development

After some slowdown at end-2014 when the market adjusted to amendments to the Insolvency Law and the Immigration Law⁴, the real estate market activity started to revive gradually in 2015, spurred by the improving household purchasing power and the state-guaranteed mortgage programme for construction or purchase of first housing. The number of real estate purchases registered with the State Unified Computerised Land Register has a general tendency to grow. While in 2015 overall, the volume of registered purchase agreements declined (by 2.9%; see Chart 1.15), in the fourth quarter of 2015 and the first quarter of 2016, the number of such agreements increased by 3.2% and 8.4% year-on-year respectively. Following the changes made in temporary residence permit issuance regulations and the subsequent substantial shrinkage in permit requests (six times less in 2015), the non-residents' role in the real estate market decreased.

Chart 1.15

NUMBER OF PURCHASE AGREEMENTS REGISTERED WITH LAND REGISTER IN LATVIA
(thousands)



In general, real estate prices rose moderately (see Chart 1.16). According to the information collected by real estate companies⁵, the average standard apartment price in

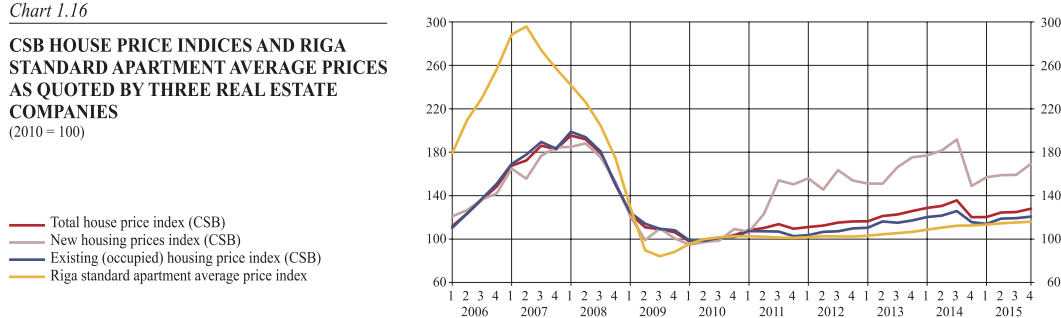
⁴ Information about amendments in these laws can be found in Latvijas Banka publication "Financial Stability Report" 2013/2014, Chapter 1.3.3. "Real estate market development".

⁵ Average price calculations are based on information published by Latio Ltd., Arco Real Estate Ltd. and Ober Haus Real Estate Latvia Ltd.

Riga⁶ in 2015 increased by 3.0% on average and stood at 663 euro per square meter at year's end. The CSB house price index for existing (prior occupied) dwelling picked up 4.5% in 2015⁷, while the respective index for new dwelling increased by 14.6%; as a result, the annual growth rate of total house price index accelerated to 6.6%. This rise in new dwelling prices can largely be explained by the base effect, i.e. a pronounced drop in new dwelling prices at the end of 2014, when the Insolvency Law and the Immigration Law were notably amended and non-resident demand for relatively costly real estate weakened markedly, pushing up the offer of new dwellings to local households accordingly. Real estate companies report that in 2015 a moderate price rebound occurred in the segment of local-purchasers-oriented new housing (i.e. relatively cheaper new apartments in Riga housing estates, with their value up to 100 thousand euro).

Chart 1.16

CSB HOUSE PRICE INDICES AND RIGA STANDARD APARTMENT AVERAGE PRICES AS QUOTED BY THREE REAL ESTATE COMPANIES
(2010 = 100)

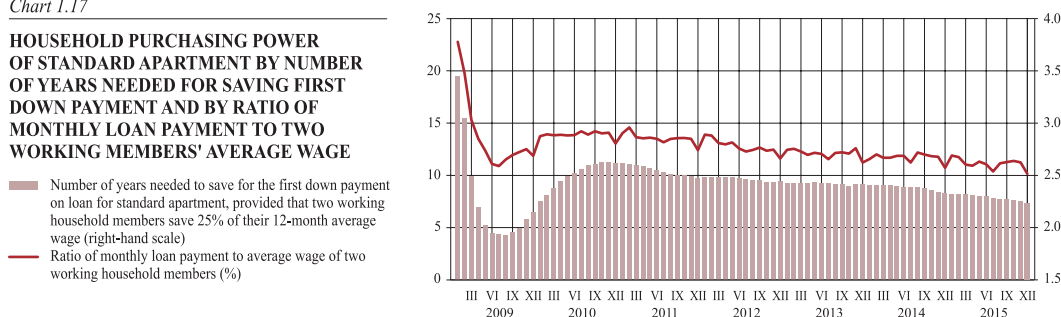


The demand for housing is supported by higher household purchasing power and the above mentioned state guarantees programme. The number of new mortgage loans is gradually rising, albeit overall mortgage lending is still evolving slowly. As the resident demand for housing is strengthening sluggishly and that of non-residents is contracting, the stock of unsold housing in new projects is accumulating. According to the estimates by Ober Haus Real Estate Latvia Ltd., there were two times more unsold apartments in Riga on the primary real estate market at the end of 2015 than at the end of 2014. Real estate supply is simultaneously pressed down by contracting residential building activity.

In 2015, availability of standard apartments improved somewhat on average. With net wages rising at a faster pace than real estate prices, the ratio of Riga standard apartment prices to average net wages in Riga narrowed, and the time needed to save for the first mortgage loan down-payment for house purchase became shorter; the monthly payment on a housing loan to average wages of two working household members fell likewise (see Chart 1.17). The increased purchasing power of population fuels their interest in new project dwellings whose availability has slightly decreased.

Chart 1.17

HOUSEHOLD PURCHASING POWER OF STANDARD APARTMENT BY NUMBER OF YEARS NEEDED FOR SAVING FIRST DOWN PAYMENT AND BY RATIO OF MONTHLY LOAN PAYMENT TO TWO WORKING MEMBERS' AVERAGE WAGE



⁶ In 2015, standard apartment purchase agreements accounted for almost two thirds of all transactions in Riga apartment market.

⁷ The CSB price calculation for existing (or previously unoccupied) apartments refers to all apartments which were put into operation more than three years ago or are sold in the secondary market, thus relatively new apartments are also included in this category. That is why the CSB's house price index for existing housing is elevating at a slightly faster pace than average prices of standard apartments in Riga quoted by real estate companies.

According to the data by Latio Ltd., the rent market has expanded over the last 18 months, because apartments previously projected for non-residents now became available for residents. As a result, rent in the more costly real estate segment is declining. Rent for standard apartments in Riga in 2015, on the other hand, has remained unchanged (5.0 euro per square meter on average at the end of 2015).

Companies Ober Haus Real Estate Latvia Ltd. and Colliers International Advisors Ltd. have estimated that the commercial real estate market maintains its development at a moderate level. In 2015, office space rent on the whole remained at the 2014 level despite the share of unoccupied premises heading somewhat downwards⁸. The data provided by Ober Haus Real Estate Latvia Ltd. show that the demand for office buildings for investment purposes or as non-financial corporation premises is still in place. In the retail property segment, no changes have been observed for the range of rent and the share of free space in shopping malls.

⁸ Data of Ober Haus Real Estate Latvia Ltd. Also according to the Colliers International Advisors Ltd. data, rent for category B office space was at the level of 2014, the upper margin of category A office space rent went up slightly, but the share of free space remained unchanged in 2015.

2. DEVELOPMENT AND RISKS OF THE CREDIT INSTITUTION SECTOR

Newly issued domestic loans are gradually increasing, however, the outstanding amount of loans to resident non-financial corporations and households continue to shrink. Prolonged weak lending dampens both the economic growth potential and future income of credit institutions. Although profitability indicators in both credit institution groups are good and the spread between interest rates on loans and deposits remains wide, the declining income base and opportunities to cut expenditure deteriorate the profitability outlook. The improvement in the quality of loans granted to residents contributes to profitability of credit institutions. Meanwhile, the quality of loans to non-residents has worsened; however, the quality of the total loan portfolio is still improving. The results of the sensitivity analysis and macroeconomic stress tests carried out by Latvijas Banka suggest that credit institutions' capacity to absorb the possible credit risk growth is overall good as capital adequacy ratios of credit institutions are generally high. The high liquidity and capital adequacy ratios of credit institutions limit their financial and liquidity risks since the FCMC defines higher liquidity requirements for several credit institutions individually according to their business model risk. The results of the liquidity stress tests conducted by Latvijas Banka show that credit institutions' ability to absorb shocks from the potential financing outflows is high.

2.1 Lending development and credit risk

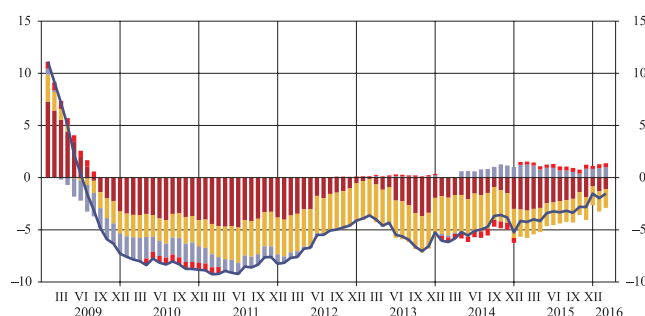
The quality of loans granted to residents continues to improve. It is supported by improvement in domestic borrowers' creditworthiness, the decrease in the debt level and the low interest rates. Cautious lending policies of credit institutions also mitigate the credit risk of loans to residents. Deterioration of the macrofinancial situation in Russia has had an adverse effect on the quality of loans granted to non-residents. The share of loans to non-residents in the total loan portfolio is relatively small; therefore, the total quality of loans continues to improve. Notwithstanding the improving quality of the total loan portfolio, the assessment of the total credit risk has remained unchanged. Repayment of loans to residents and (to a lesser extent) write-offs of long past due loans still exceed new loans. Thus, loans granted to resident non-financial corporations and households continue to contract.

Loans to residents are shrinking further; however, the rate of decrease is decelerating. In February 2016, domestic loans decreased by 1.5% year-on-year {−4.2%} (see Chart 2.1). The loan portfolios of both non-financial corporations and households are shrinking at a slower pace than before. In February 2016, their annual rate of decrease was −2.2% {−6.1%} and −4.1% {−5.8%} respectively. At the same time, loans to financial institutions granted by credit institutions are gradually increasing. This results from both the change in the funding model of credit institutions' subsidiaries that are leasing companies (Nordic parent bank funding is partially replaced with loans granted by Latvian credit institutions to their subsidiaries that are leasing companies) and from more active leasing market development (the domestic financial leasing portfolio expanded by 10.4% in 2015). Meanwhile, the annual growth rate of loans to non-residents is declining. It stood at 3.1% {14.2%} in February 2016. The total loan portfolio of credit institutions had shrunk by 0.9% {1.9%} year-on-year.

Chart 2.1

ANNUAL RATE OF CHANGE IN LOANS TO RESIDENTS AND ITS COMPONENTS IN THE BREAKDOWN BY SECTOR⁹
(percentage points)

■ Government
■ Financial institutions
■ Households
■ Non-financial corporations
— Annual rate of change in loans (%)

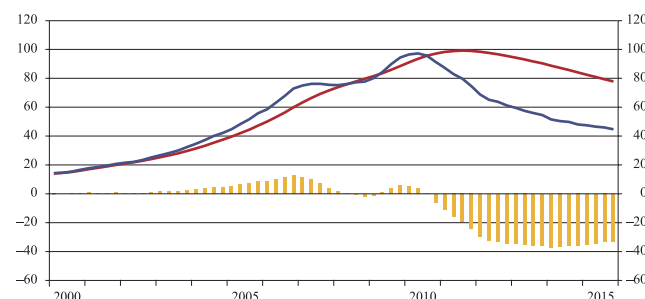


With the deleveraging process continuing, the ratio of loans granted to private non-financial corporations and households to GDP has shrunk to 44.8%. The deviation of the ratio of loans to the private non-financial sector to GDP from its long-term trend is still rather negative (-33.1% at the end of 2015; see Chart 2.2).

Chart 2.2

DEVIATION OF THE RATIO OF LOANS TO THE PRIVATE NON-FINANCIAL SECTOR TO GDP FROM ITS LONG-TERM TREND
(percentage points; %)

■ Deviation from the trend
— Credit-to-GDP trend
— Credit-to-GDP ratio

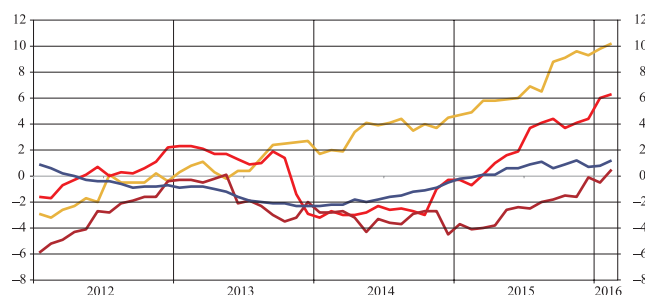


ECB data on loans to residents of the euro area suggest that lending dynamics in Latvia lag behind lending development in the neighbouring countries. The average rate of change in lending in the euro area as a whole is also slightly higher than in Latvia (see Chart 2.3).

Chart 2.3

ANNUAL RATE OF CHANGE IN LOANS TO RESIDENTS (EXCLUDING GOVERNMENT) OF THE EURO AREA¹⁰
(%)

— Estonia
— Lithuania
— Latvia
— Euro area



The results of the bank lending survey organised by the ECB suggest that credit standards of Latvian credit institutions have been very slightly eased, and credit institutions are still cautious. According to credit institutions, the demand for loans by non-financial corporations and households is gradually edging up, yet it remains low in general.

The loan demand by non-financial corporations is limited by both the external uncertainty and the associated caution to make new investment and by delay in absorption of EU funds since the beginning of the new programming period of EU funding. The available resources provided by EU funding support lending, in particular when investment by non-financial corporations themselves is insufficient. Credit institutions point to the following factors still considerably curbing lending: the insufficient equity of non-financial corporations or investment by non-financial corporations themselves, lack of

⁹ To ensure comparability, the time series do not include the data of JSC *Parex banka* and JSC *Latvijas Krājbanka*, and they have been adjusted excluding the one-off effects of the cancellation of the credit institution licences of JSC GE Money Bank, SJS *Latvijas Hipoitēku un zemes banka* and JSC UniCredit Bank.

¹⁰ The time series have been adjusted excluding the one-off effects of loan write-offs, exchange rate fluctuations, reclassification, etc.

non-financial corporations having a positive credit history, shortcomings of the legal framework and the shadow economy. The implementation of the programmes of the European Fund for Strategic Investments could be commenced in Latvia in the near term. Within the framework of these programmes enterprises, more than has previously been the case, will be able to get support for guarantees from JSC *Attīstības finanšu institūcija Altum* as well as directly from the European Investment Bank. The programmes could improve access to financing by small and medium-sized enterprises with no credit history and in need of the first loan.

Household demand for loans is gradually picking up. This is supported by household creditworthiness gains and the state-guaranteed mortgage loan programme¹¹ launched in 2015 to support the construction or purchase of the first housing. Under the above programme, 1.2 thousand loans were granted for house purchase in 2015. Their outstanding amount was 55 million euro at the end of 2015 (in 2015 overall, 8.6 thousand loans totalling 271 million euro were granted for house purchase). However, the level of personal income and savings remains low, thus limiting lending to households.

The new loans are expected to be on a rather moderate upward trend. Prolonged weak lending may constrain economic growth and also the future income of credit institutions.

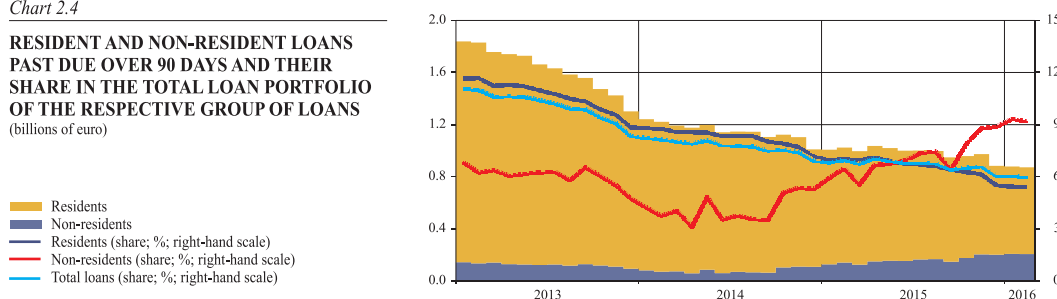
The quality of the total credit institutions' loan portfolio continues to improve. The share of loans past due over 90 days shrank from 6.9% at the end of February 2015 to 6.0% at the end of February 2016 (see Chart 2.4). Against the background of moderate economic growth, the quality of the domestic loan portfolio is improving both in the resident household and resident non-financial corporation segments. In February 2016, the share of loans past due over 90 days in the resident loan portfolio had shrunk to 5.4% and that of the restructured loans past due less than 90 days had contracted to 6.8%.

Meanwhile, the quality of loans to non-residents is deteriorating. Moreover, the share of restructured loans has expanded in the non-resident loan portfolio (12.3% in February 2016 {7.4%}). The quality of the non-resident portfolio is likely to worsen further on account of the deterioration of the macrofinancial situation in Russia where a significant share of the non-resident portfolio is concentrated. Loans to non-residents constitute 15% of the total credit institutions' portfolio, thus the impact of their declining quality on the quality of the total loan portfolio is limited.

With the credit risk of domestic borrowers decreasing and risks associated with lending to non-residents edging up, the total credit risk assessment has remained unchanged. It is projected that the quality of the total loan portfolio will not change significantly in 2016.

Chart 2.4

RESIDENT AND NON-RESIDENT LOANS PAST DUE OVER 90 DAYS AND THEIR SHARE IN THE TOTAL LOAN PORTFOLIO OF THE RESPECTIVE GROUP OF LOANS
(billions of euro)

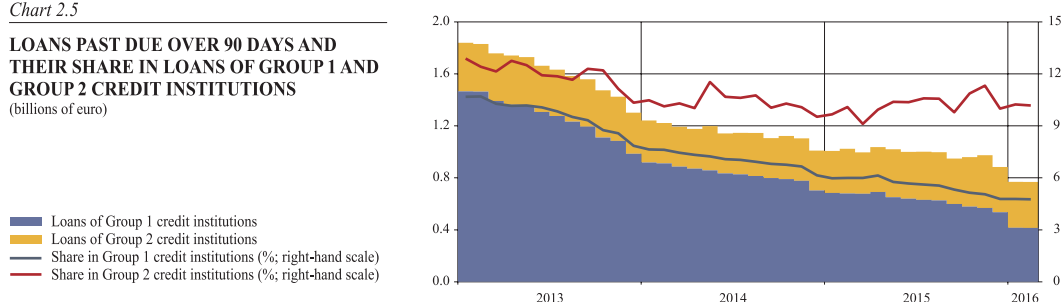


The loan portfolio quality development trends of both credit institution groups are increasingly diverging. The share of long past due loans of Group 1 credit institutions continues to shrink (it was already below 5% in February 2016). Meanwhile, that of Group 2 credit institutions is fluctuating and tends to go up since the beginning of 2015 (see Chart 2.5).

¹¹ Within the framework of the programme, the state guarantees loans to families with children granted by credit institutions for house purchase or construction. The guarantee covers 10%–20% of the loan depending on the number of minor children in the family, thus allowing to reduce the first down payment accordingly.

Chart 2.5

LOANS PAST DUE OVER 90 DAYS AND THEIR SHARE IN LOANS OF GROUP 1 AND GROUP 2 CREDIT INSTITUTIONS
(billions of euro)



Provisions for domestic loans continue to follow a downward trend, while those for non-resident loans are on the rise. The ratio of total provisions to loans past due over 90 days slightly increased during the year, i.e. from 76% in February 2015 to 80% in February 2016.

The results of the sensitivity analysis and macroeconomic stress test conducted by Latvijas Banka suggest that the capacity of credit institutions to absorb the potential increase in credit risk and Russian country risk caused by external and internal shocks is good as credit institutions are overall well capitalised and they have a significant level of provisions. In the framework of the supervisory review and evaluation process (Pillar 2), the FCMC defines individual increased capital adequacy requirements for credit institutions granting loans to non-residents.

2.2 Funding and liquidity risks

Resident deposits continue on a steady upward path. Meanwhile, non-resident deposits have been decreasing since the beginning of 2016. This relates to both the high base and introduction of significantly stricter requirements in the area of AML/CTF. Funding provided by parent banks is contracting further on account of the increasing ability of credit institutions to finance lending by using resident deposits. The financial and liquidity risks of credit institutions are limited by the high level of compliance with liquidity and capital adequacy ratios. The FCMC defines tightened liquidity and capital adequacy requirements for individual credit institutions according to their business model risk. Support by parent banks is available to their subsidiaries in Latvia if necessary. The results of the liquidity stress tests conducted by Latvijas Banka show that credit institutions' ability to absorb the potential liquidity shocks is high.

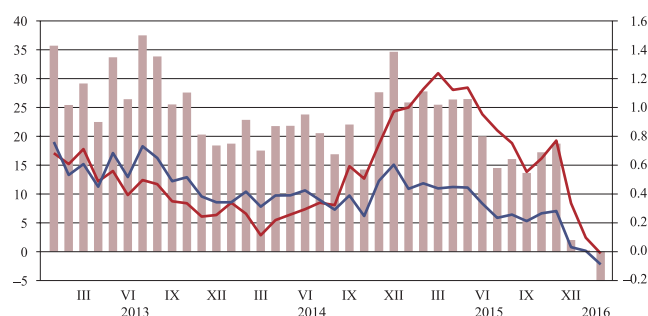
Non-bank deposits, whose total share in credit institutions' liabilities stood at 73% at the beginning of 2016, prevail in the funding structure of credit institutions. Despite the low deposit rates, deposits received from resident households and non-financial corporations follow a robust upward trend (an increase by 6.3% in February 2016 and 12.2% in February 2015), representing their growing creditworthiness. Deposits of pension funds with credit institutions also considerably increased in 2015. Their share in resident deposits climbed from an insignificant volume in February 2015 to 6% in February 2016. It can be explained by the passive approach of Latvia's pension funds in relation to investment in financial markets, with pension funds placing their resources with Latvian credit institutions.

Over the past year, the annual rate of growth in non-resident deposits gradually went down, and it was already negative at the beginning of 2016. It was influenced by the high base (non-resident deposits constituted 52% of the total non-bank deposits) and by stricter AML/CTF requirements. With the euro to US dollar rate stabilising, the exchange rate has no significant impact on annual changes in non-resident deposits anymore (see Chart 2.6).

Chart 2.6

CHANGE IN NON-RESIDENT DEPOSITS AND THEIR GROWTH RATE IN COMPARISON WITH THE RESPECTIVE MONTH OF THE PREVIOUS YEAR (%)

— Annual growth rate
— Annual growth rate adjusted for foreign exchange rate movements
■ Annual growth adjusted for foreign exchange rate movements (billions of euro; right-hand scale)



Overall, the share of parent banks in financing credit institutions is low, and its future dynamics depend on lending development. The resident loan portfolio is almost entirely financed from resident deposits, and the loan-to-deposit ratio of residents has declined to its historically lowest level (111.3% in February 2016).

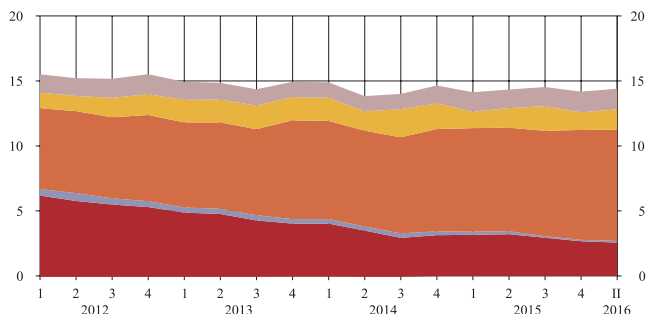
Taking account of the fact that Latvia's credit institution sector consists of two credit institution groups which are different both in terms of the composition of the funding received and its placement, it is important to consider not only the common trends prevailing in the credit institution sector but also those present in the two distinctive groups of credit institutions.

Deposits of the private non-financial sector constitute the most significant funding source of Group 1 credit institutions. At the end of February 2016, these deposits accounted for 59% of the total funding of the above credit institutions and continue on a stable upward path (see Chart 2.7). The second most important source of financing is funding provided by parent banks which is still gradually contracting and constituted 18% of the total funding of these credit institutions at the end of February 2016. Taking into account lending development forecasts and the fact that long-term financing accounts only for 24% of funding provided by parent banks, this funding could continue to decrease. The loan-to-deposit ratio of Group 1 credit institutions reached 95.5% in February 2016 (see Chart 2.8; including 106.6% – the loan-to-deposits ratio of residents), suggesting that most of these credit institutions are able to finance their loan portfolios by using non-bank deposits. Short-term deposits continue to prevail in the maturity composition of the received deposits. A situation where the share of long-term funding in the overall financing composition remains low leads to the maturity mismatch between assets and liabilities of credit institutions. However, this risk is mitigated by support provided by parent banks and the high share of credit institutions' liquid assets¹² in their total assets.

Chart 2.7

BREAKDOWN OF GROUP 1 CREDIT INSTITUTION FUNDING (billions of euro)

■ Debt securities issued
■ Non-resident deposits
■ Other resident deposits
■ Resident private non-financial sector deposits
■ Liabilities to other credit institutions
■ Liabilities to affiliated credit institutions
■ Liabilities to Latvijas Banka

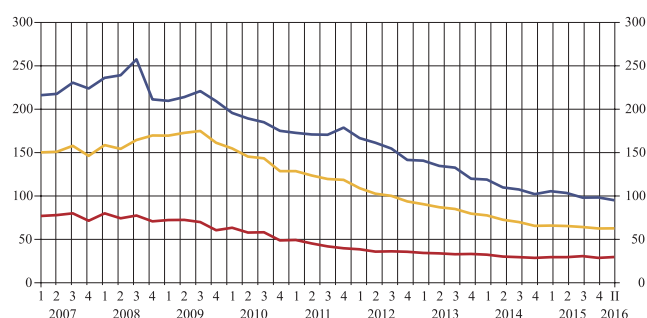


¹² Liquid assets = vault cash + claims on central banks and other credit institutions + central government fixed income debt securities.

Chart 2.8

LOAN-TO-DEPOSIT RATIO BY CREDIT INSTITUTION GROUPS
(%)

— Group 1 credit institutions
— Group 2 credit institutions
— Credit institutions taken together



Financing of Group 2 credit institutions is largely made up of non-resident deposits. Their annual growth rate declined in 2015 and non-resident deposits already slightly shrank at the beginning of 2016, i.e. in February 2016, non-resident deposits contracted by 0.4% year-on-year (see Chart 2.9). This was on account of the high base of non-resident deposits, economic downturn in Russia and stricter AML/CTF requirements¹³ which could limit further increase in non-resident deposits.

Short-term financing prevails also in funding attracted by Group 2 credit institutions (demand deposits constitute 95% of it). The credit institutions representing this group limit risks concerning maturity mismatch by investing the attracted funding mainly in highly liquid foreign short-term assets and by depositing increasing amounts of it with Latvijas Banka (see Chart 2.10). Risks related to servicing non-residents is limited by the additional individual capital and liquidity requirements set by the FCMC and by tightening AML/CTF requirements.

Chart 2.9

BREAKDOWN OF GROUP 2 CREDIT INSTITUTION FUNDING
(billions of euro)

■ Debt securities issued
■ Non-resident deposits
■ Other resident deposits
■ Resident private non-financial sector deposits
■ Liabilities to credit institutions
■ Liabilities to Latvijas Banka

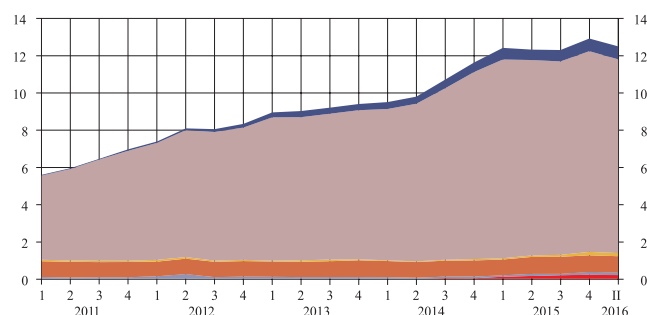
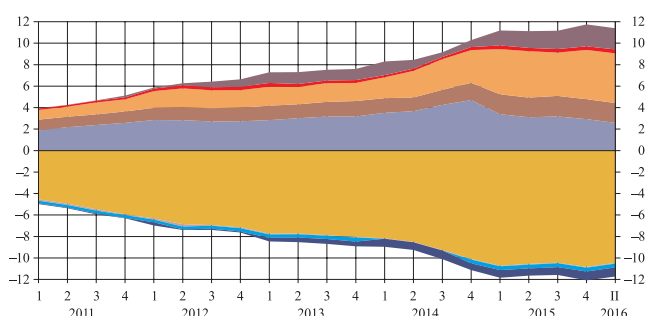


Chart 2.10

BREAKDOWN OF GROUP 2 CREDIT INSTITUTION FOREIGN ASSETS AND LIABILITIES
(billions of euro)

■ Claims on Latvijas Banka (excluding minimum reserve requirements)
■ Other assets
■ Securities
■ Loans
■ Claims on credit institutions
■ Other liabilities
■ Capital and reserves
■ Liabilities to credit institutions
■ Deposits



Overall, the liquidity risk of credit institutions remains limited as credit institutions of both groups have a high share of liquid assets in their total assets. Both credit institution groups more than overfulfil the liquidity ratio requirement set by the FCMC and the LCR requirement introduced as of October 2015.

¹³ Stricter requirements governing risk management of AML/CTF have been applied to credit institutions and to in-depth investigations of their customers. Additional audits have been conducted in credit institutions to determine compliance of their procedures with the AML/CTF standards set by the US. Moreover, institutional capacity of supervisory institutions for prevention of the money laundering and terrorism financing risk is being strengthened.

Box 1**Credit institution liquidity coverage ratio requirement**

A 60% LCR requirement for credit institutions entered into force on 1 October 2015, but a 70% LCR requirement became effective on 1 January 2016 throughout the EU. The LCR is a liquidity ratio foreseen as a short-term liquidity buffer to offset unexpected short-term (up to 30 days) funding outflows. The LCR is a ratio of high-quality liquid assets of a credit institution to net cash outflows within the next 30 days envisaged under the stress test scenario. The LCR requirement will be gradually raised on an annual basis, and credit institutions will have to achieve a 100% LCR requirement in effect from 2018.

According to the LCR calculation methodology, reserves of liquid assets of Latvian credit institutions are primarily made up of Level 1 highly liquid assets, i.e. excess reserves held with the central banks (50%), government debt securities (32%) and other Level 1 liquid assets (16%). The liquid assets of Latvian credit institutions contain only 2% of Level 2 liquid assets whose quality is somewhat lower, e.g. corporate bonds.

Latvian credit institutions fulfil the LCR requirement by a good margin both at individual and consolidated levels. In December 2015, the LCR median of Latvian credit institutions was 346% (see Chart 2.11), but the weighted average LCR stood at 318%¹⁴. These ratios are very high at international level as the report of the Bank for International Settlements of September 2015 on the implementation of Basel III standards states that the LCR of 100 largest international banks was on average 121.3% and that of other banks – 140.1% in June 2014.

Chart 2.11

CREDIT INSTITUTION LCR*
(%)

* LCR has been calculated by using data of the bank consolidated group, except three credit institutions which have no consolidated group.

Until complete introduction of the LCR requirements in 2018, the existing liquidity ratio requirements set by the FCMC¹⁵ as well as individual additional liquidity ratio requirements set within the framework of the supervisory review process (Pillar 2) for credit institutions engaged in servicing non-residents will remain in force.

The LCR and liquidity ratio set by the FCMC are calculated according to different methods, therefore, they are not directly comparable. There is no close correlation between the two ratios (see Chart 2.12). The key differences between the LCR and FCMC liquidity ratio are as follows:

- 1) when calculating the LCR, liquid assets are related to the net funding outflow assessment, but regarding the FCMC liquidity ratio liquid assets are related to the short-term liabilities outstanding;
- 2) when calculating the LCR, claims on MFIs are not included in liquid assets (these claims are included in the calculation of inflows of funding with a limit of 75%) as is not the average amount of daily minimum reserves to be held on the account of Latvijas Banka;

¹⁴ Calculated by using consolidated data of credit institutions and weighted by the share of credit institutions in the total assets.

¹⁵ The ratio of liquid assets (vault cash; claims on Latvijas Banka 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) to credit institution's current liabilities whose residual maturity does not exceed 30 days. In compliance with the FCMC requirements, this ratio may not be less than 30%.

3) when calculating the LCR, haircuts are applied to liquid assets (depending on the potential loss of asset value) and short-term liabilities (depending on the probability of liability outflows) in a liquidity stress situation.

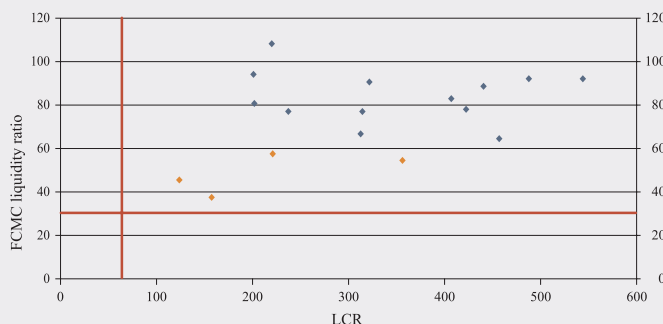
The LCR requirement has been developed across the EU as a uniform ratio for both global banks with a complex structure and traditional banks with a simple business model. Such a coherent approach ensures only the minimum level of liquidity requirements in all banks, but this approach is not flexible enough to set stricter liquidity requirements for banks with an increased liquidity risk. In Latvia, the FCMC within the framework of the supervisory review process (Pillar 2) has currently set stricter individual liquidity requirements to credit institutions with a specific business model. The need to establish stricter liquidity requirements for these credit institutions will remain also beyond 2018: it is suggested by the multiple overfulfilment of the existing LCR requirement in credit institutions which have to ensure higher liquidity buffers.

Chart 2.12

LIQUIDITY RATIO OF CREDIT INSTITUTIONS SET BY THE FCMC AND THEIR LCR*

(%)

- ◆ Group 1 credit institutions
- ◆ Group 2 credit institutions
- Minimum LCR requirement



* LCR has been calculated by using data of the bank consolidated group, except three credit institutions which have no consolidated group.

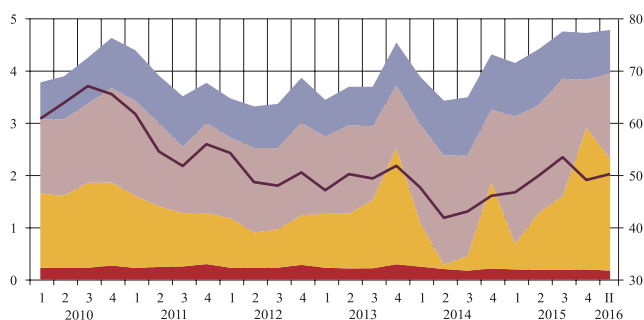
The liquidity ratio of Group 1 credit institutions remained broadly unchanged over the past year and stood at 50.3% in February 2016 (see Chart 2.13). Deposits with Latvijas Banka constitute the major part of the liquid asset composition of Group 1 credit institutions (44.7% at the end of February 2016).

Chart 2.13

COMPOSITION OF GROUP 1 CREDIT INSTITUTION LIQUID ASSETS AND THE FCMC LIQUIDITY RATIO

(billions of euro)

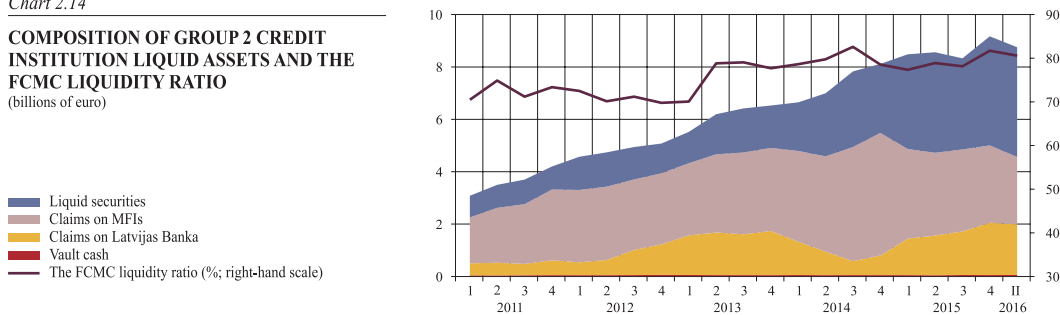
- Liquid securities
- Claims on MFIs
- Claims on Latvijas Banka
- Vault cash
- The FCMC liquidity ratio (%; right-hand scale)



The liquidity ratio of Group 2 credit institutions is still high (above 80%; see Chart 2.14). Claims on MFIs continue to decline in the composition of liquid assets of Group 2 credit institutions, but the share of liquid securities (mainly US government bonds) is still expanding buoyantly. At the end of February 2016, liquid securities constituted 47.9% of their total liquid assets {39.4%}. It can be explained by higher yields on liquid securities compared to claims on MFIs. Despite the negative interest rates, deposits with Latvijas Banka also grew further.

Chart 2.14

COMPOSITION OF GROUP 2 CREDIT INSTITUTION LIQUID ASSETS AND THE FCMC LIQUIDITY RATIO
(billions of euro)



The stress tests of credit institutions' liquidity conducted by Latvijas Banka suggest that their ability to absorb the shocks caused by potential financing outflows remained high in 2015.

Liquidity stress tests evaluate the significance of the potential consequences of financial outflows. The results of the liquidity stress tests indicate the tolerance of credit institutions to the outflows of non-resident non-MFI deposits, resident non-MFI deposits and the total funding (MFI and non-MFI) with the residual maturity of up to three months before their liquidity ratio reaches 0, assuming that credit institutions do not have access to additional resources to offset the funding outflows.

According to the stress test results, all credit institutions were able to withstand the outflows of up to 40% of resident deposits and the outflows of more than 60% of non-resident deposits. The increasing high share of liquid assets¹⁶ contributes to their ability to absorb the shock of financing outflows.

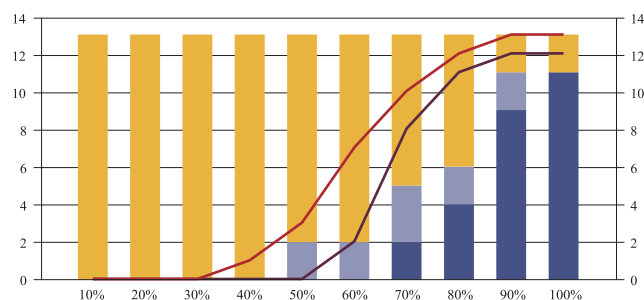
The stress tests of Group 2 credit institutions were supplemented with two particularly adverse scenarios. The assumptions of Scenario 1 foresee that it is impossible to pledge or sell the securities portfolio, except securities issued by Latvia's government and those issued by other governments where at least one of the three long-term ratings by international credit rating agencies¹⁷ is AAA. In relation to Latvian government securities it was assumed that they lose 30% of their value in the extreme stress scenario, and they can be used by applying a 7.5% discount at the Eurosystem's monetary operations. In Scenario 2, in addition to the above assumptions of Scenario 1, it is assumed that no credit institution has access to claims on MFIs from a country on whose MFIs the specific credit institution has the highest volume of claims.

The application of Scenario 1 did not notably deteriorate the results of the basic stress tests. Group 2 credit institutions would be able to withstand the outflow of no less than 50% of non-resident deposits (see Chart 2.15; {50%}). The application of Scenario 2 would reduce the ability to withstand the outflow of up to 30% {20%} of non-resident deposits.

Chart 2.15

LIQUIDITY STRESS TEST RESULTS FOR GROUP 2 CREDIT INSTITUTIONS IN CASE OF NON-RESIDENT DEPOSIT OUTFLOWS
(31 December 2015; number of credit institutions)

- Credit institutions with sufficient liquidity ratio (liquidity ratio above 30%)
- Solvent credit institutions with insufficient liquidity ratio (liquidity ratio below 30%)
- Illiquid credit institutions (negative liquidity ratio)
- Illiquid credit institutions; Scenario 1 (negative liquidity ratio)
- Illiquid credit institutions; Scenario 2 (negative liquidity ratio)



¹⁶ The liquid assets defined in the calculation of the FCMC liquidity ratio.

¹⁷ Standard & Poor's, Moody's and Fitch Ratings.

2.3 Market risk

Latvian credit institutions have balanced RSA and RSL positions, their trading books are small and their open foreign exchange positions are insubstantial. Therefore, the direct impact of short-term financial market volatility, including violent interest rate swings, on their performance is limited.

Interest rates remain low in major global financial markets as a result of weak economic growth, low inflation expectations and monetary policy measures implemented by central banks. Euro area sovereign bond yields have reached a historical low. Even AAA-rated long-term (with a maturity of up to 10 years) government bond yields are negative. At the same time, both euro area and global financial market volatility has increased leading to a higher risk of abrupt risk repricing (including interest rate and exchange rate adjustment risks). The effects of the low interest rate environment on profitability of Latvian credit institutions have been discussed in Box 2.

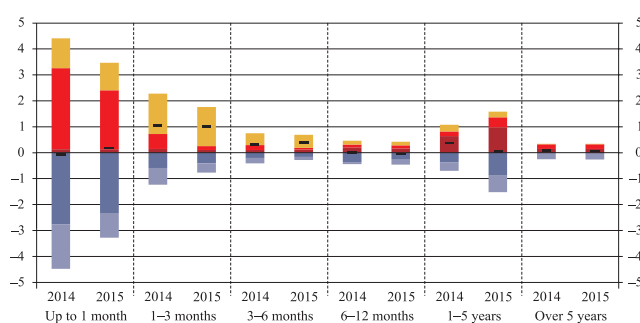
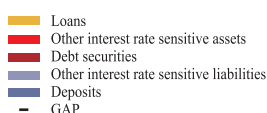
The core business of Latvian credit institutions usually does not involve short-term trading in financial markets (assets held for trading comprise about 2% of all credit institution assets). Therefore, in episodes of financial market turmoil the direct effect of adverse changes in the trading book of credit institutions on their performance would be overall insignificant.

Meanwhile, the impact of market rate swings on the banking book of credit institutions is contained as Latvian credit institutions manage their interest rate risk by sustaining a balanced RSA/RSL ratio in various time-bands (see Chart 2.16). The term structure of credit institutions' RSA and RSL has remained broadly unchanged in comparison with 2014. Credit institutions are mostly exposed to a risk of falling interest rates within the time-band of 1–3 months. This is suggested by the positive GAP within this time-band which at 1% of own funds, like in 2014, is also the largest. A positive GAP would mean an increase in net interest income in the event of rising market rates. Conversely, should the market rates decline, net interest income would shrink. Credit institutions have increased their holdings of longer-term debt securities (with a maturity of 1–5 years) most likely in search of a higher yield in the environment of low short-term interest rates (these are mainly securities available for sale, therefore credit institutions can sell them off prior to their maturity). At the same time, deposits with a maturity of 1–5 years have grown, thereby achieving a balanced net RSA/RSL position within this time-band.

Chart 2.16

CREDIT INSTITUTION RSA AND RSL BY RESIDUAL MATURITY

(% of own funds)



The results of the short-term sensitivity analysis¹⁸ suggest that even in a scenario of a large but relatively low probability 200 basis points rate shock the changes in income would have no significant influence on the credit institutions' capital ratios. Rising interest rates would even boost the profit. In the hypothetical case of a parallel shift of the yield

¹⁸ The impact on the annual net interest income within each time-band is calculated by multiplying the time-band's GAP with the market rate change and the ratio of this time-band characterising the part of the year when the GAP of this time-band will be positive. 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: $(12 - 0.5 \times (3 + 6))/12 = 0.625$. The overall impact on the annual profit 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 impact of market rates on the credit institutions' economic value and are based on the structure of credit institutions' balance sheet as at the end of 2015.

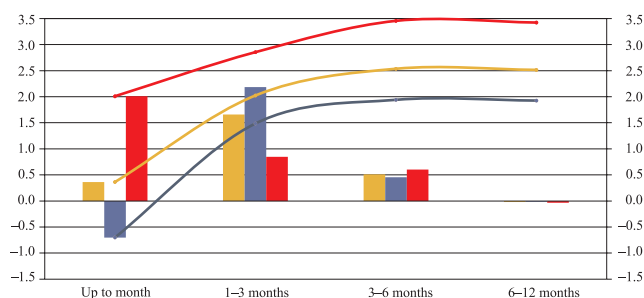
curve by 200 basis points, annual net interest income of credit institutions could grow to 2.5% of their own funds, representing a 0.4 point increase over the previous year. For Group 2 credit institutions, the rise in interest income could even reach 3.5% of own funds (see Chart 2.17).

Chart 2.17

THE EFFECT OF AN INCREASE IN INTEREST RATES BY 200 BASIS POINTS AND CUMULATIVE EFFECT ON CREDIT INSTITUTIONS' NET ANNUAL INTEREST INCOME BY MATURITY AND CREDIT INSTITUTION GROUP

(% of own funds)

Effect
 All credit institutions
 Group 1 credit institutions
 Group 2 credit institutions
 Cumulative effect
 All credit institutions
 Group 1 credit institutions
 Group 2 credit institutions



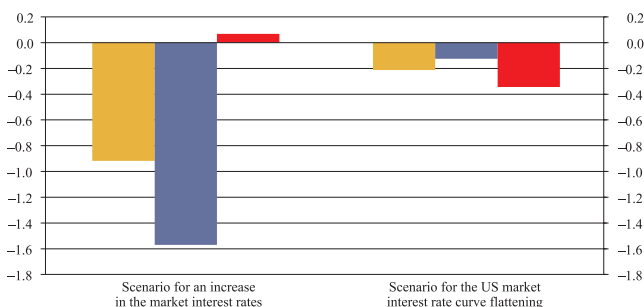
Long-term sensitivity analysis¹⁹ shows that sizeable changes in long-term interest rates would cause no significant changes in the economic value of credit institutions relative to their own funds. In a scenario with a short-term low-probability parallel 200 basis points shift of sovereign bond yields in both EU and USA, the economic value of Group 1 credit institutions would decrease by 1.5% of own funds, while the effect on Group 2 credit institutions would be even smaller (see Chart 2.18). A slightly more adverse scenario for Group 2 credit institutions would be the euro area yields staying unchanged and the yield curve of US bonds flattening: this would mean a positive short-term interest rate shock, with the long-term rates going down²⁰. Analysis suggests that under this scenario the overall effect on changes in the economic value of Group 2 credit institutions would be small, with the economic value deteriorating by less than 0.4% of own funds (see Chart 2.18).

Chart 2.18

THE EFFECT OF LONG-TERM INTEREST RATE MOVEMENTS ON THE ECONOMIC VALUE OF CREDIT INSTITUTIONS

(% of own funds)

All credit institutions
 Group 1 credit institutions
 Group 2 credit institutions



Foreign exchange risk of credit institutions is overall low: in December 2015, the weighted average open foreign exchange position was only 0.6% of own funds. The most significant element of the overall foreign exchange risk is the probability of losses resulting from changes in the US dollar/euro exchange rate. This risk affects Group 2 credit institutions whose net long position in US dollars amounted to 0.5% of own funds in December 2015. With the US dollar depreciating by 10.2% relative to euro, the losses of Group 2 credit institutions caused by the direct effects of exchange rate movements would amount to merely 0.05% of own funds of those credit institutions. Should the Fed rate be raised, the appreciation of the US dollar would also increase the euro value of the net long US-dollar position of Latvian credit institutions.

¹⁹ Credit institutions' economic value is the discounted value of credit institutions' expected future net cash flows generated by claims and liabilities that are both on and off the credit institutions' balance sheet. Assumptions for discount rates: US bond yield curve for US dollar cash flows; yield curve of AAA-rated EU bonds for euro and other currencies; a 0% floor is applied to interest rates based on EBA guidelines.

²⁰ Assumptions for yield curve flattening scenario: US bond yields grow by 100 basis points in the short-term and gradually decrease in the maturities of over 3 years, resulting in a flattening of the yield curve slightly above 1%.

2.4 Profitability

Aggregate profit of credit institutions is growing and ROA and ROE ratios are high, and the spread between lending and deposit rates remains wide. Improvement of domestic borrowers' creditworthiness helps to raise the profitability of credit institutions, and their exposure to impaired loans is overall decreasing. At the same time, the main income source of Group 1 credit institutions (loan portfolio) continues to shrink and the opportunities of further cuts of interest expenditure, loan loss provisions and administrative expenses have been practically exhausted. The low interest rate environment also limits the opportunities of boosting profit. It is most likely that the business volumes and the so-far high profit ratios of Group 2 credit institutions will decrease following the tightening of the AML/CTF requirements, the implementation of which is essential for further sustainable development of the Latvian financial sector. Some Group 2 credit institutions have to face the risks associated with their investments in the CIS countries. Considering the profitability-dampening factors growth, the strategies chosen by credit institutions to maintain profit will be crucial.

The aggregate (net) profit of credit institutions grew by 33.6% in 2015 (see Table 2.1). This overall improvement (see Chart 2.19) was primarily supported by lower new provisions of Group 1 credit institutions and a significant increase in operating income (both net interest income and non-interest income) of Group 2 credit institutions. The aggregate profit of Group 1 credit institutions still accounts for most part of the aggregate profit of all credit institutions (57%). In the first two months of 2016, the credit institutions' profit on a solo basis was similar to the profit earned within the first two months of 2015.

Table 2.1

CREDIT INSTITUTIONS' PROFIT ITEMS ON A SOLO BASIS

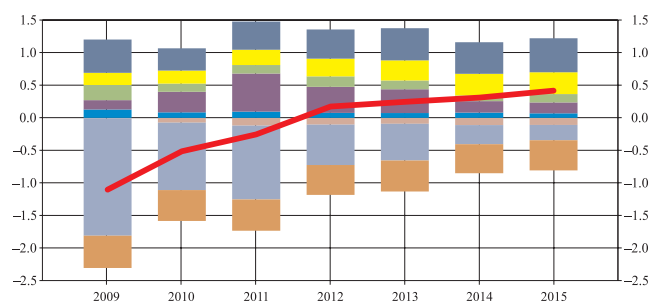
Ratio	2015 (millions of euro)	2014 (millions of euro)	Annual changes (mil- lions of euro)	Annual changes (%)
Operating income	1 001.7	916.4	85.3	9.3
net interest income	522.9	484.5	38.4	7.9
non-interest income (operating income – net interest income)	478.8	431.8	46.9	10.9
Profit before provisions and taxes	536.7	476.5	60.3	12.6
Aggregate (net) profit	415.9	311.4	104.5	33.6

Chart 2.19

BREAKDOWN OF CREDIT INSTITUTION INCOME AND EXPENSE AND PERFORMANCE RESULTS (SOLO BASIS)

(billions of euro)

- Net interest income
- Net income from commissions and fees
- Gains from trading in and revaluation of financial instruments/Trading income
- Income from reversal of provisions
- Other income
- Administrative expenses
- Expenditure on loan loss provisions
- Other expenditure
- Retained earnings/losses of the reporting year



Operating income of credit institutions is also overall growing. In 2015, it increased by 9.3%, whereas in the first two months of 2016 it grew by 1% year-on-year. In the case of the operating income of Group 2 credit institutions the rise at 18% was particularly high in 2015 (see Charts 2.20 and 2.23). Meanwhile, the operating income of several big Group 1 credit institutions slightly decreased, suggesting that the previously-identified profitability risk related to their shortage of sustainable income sources given the weakness of lending has started to materialise.

Aggregate net interest income of all credit institutions increased by 9% in 2015. For Group 1 credit institutions income remained at the level of 2014, whereas for Group 2 credit institutions it grew considerably, by 23%. Net interest income of both groups of credit institutions is supported by the stable and wide interest rate margin on outstanding

deal amounts, on average exceeding 3 percentage points. In the case of Group 1 credit institutions, both interest income and interest expense continue on a downward trend. There is practically no room left for further reducing the interest expense; therefore, the chances of preserving net interest income at the current level on account of lower interest expense are decreasing. Meanwhile, the interest income of Group 2 credit institutions has been increasing steadily (by 20% year-on-year in 2015), yet the interest expense has also slightly grown. In this particular group of credit institutions, interest income is rising on account of loans to non-residents and a significant increase in interest income from debt securities due to expanding the securities holdings.

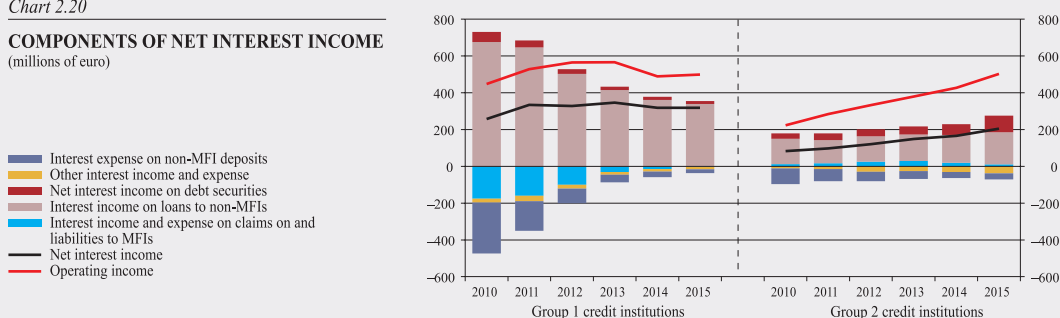
Box 2

Profitability of credit institutions in a low interest rate environment

The impact of a low interest rate environment on the profitability of credit institutions has so far been insignificant, and it can be explained by the credit institutions' ability to adapt, i.e. optimise administrative expenses, cut deposit rates, preserve a relatively wide spread between lending and deposit rates and increase investment in securities portfolios. The low interest rate environment affects the credit institutions of both groups, yet the significance of various channels differs.

Chart 2.20

COMPONENTS OF NET INTEREST INCOME (millions of euro)



A significant part of the operating income of Group 1 credit institutions (65%; see Chart 2.20) is comprised of net interest income, primarily from loans to residents. In 2015, they were able to preserve net interest income at the level of previous years, with both interest expense and interest income contracting. At the current juncture, however, there is practically no room left for any further reducing of interest expense. In the absence of any possibilities to increase interest income in the future, net interest income could shrink. Thus there is a growing pressure on Group 2 credit institutions to expand business or search for new, potentially riskier, sources of income. At the same time, several domestic and external factors have an adverse effect on borrowers' and lenders' confidence, thereby dampening the recovery of lending.

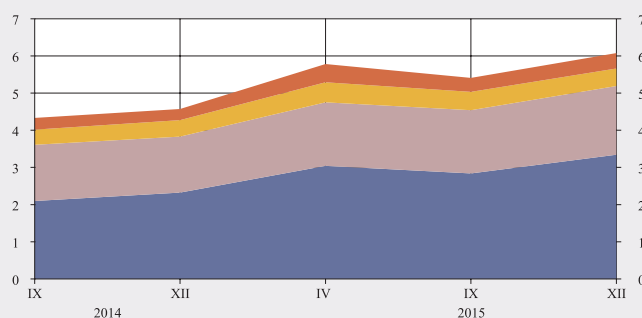
With both interest income and interest expense growing, the net interest income of Group 2 credit institutions has increased in the most recent years (by 20% year-on-year in 2015), reaching 41% of operating income in 2015. In this particular group of credit institutions, interest income is rising on account of loans to non-residents and a significant increase in interest income from debt securities due to expanding the securities holdings, with the credit institutions of the group primarily increasing their investment in investment grade securities (see Chart 2.21). In search of a better return on investment, Group 2 credit institutions have reduced claims on credit institutions (return can even be negative).

Chart 2.21

FIXED INCOME SECURITIES PORTFOLIO OF CREDIT INSTITUTIONS

(billions of euro)

- Below BBB– and unrated
- From BBB+ to BBB–
- From AA+ to A–
- AAA



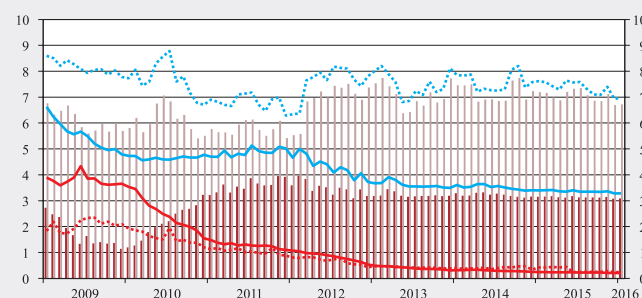
The persistently wide spread between lending and deposit rates on outstanding amounts (over 3.0 percentage points; see Chart 2.22) which has remained broadly unchanged for the last three years suggests that both groups of credit institutions are able to earn net interest income. In Group 1 credit institutions, the spread for new business also remains large (an average of 3.5 percentage points). The spread on new business with both households and non-financial corporations in Latvia is one of the largest in the EU²¹. So far no factors have emerged that would exert a strong downward pressure on lending margins.

Chart 2.22

LENDING AND DEPOSIT RATES ON OUTSTANDING AMOUNTS AND THEIR SPREADS

(%)

- Spreads (Group 1 credit institutions; percentage points)
- Spreads (Group 2 credit institutions; percentage points)
- Deposit rate (Group 1 credit institutions)
- Deposit rate (Group 2 credit institutions)
- Lending rate (Group 1 credit institutions)
- Lending rate (Group 2 credit institutions)



The environment of persistently low interest rates increases the market participants' risk appetite; therefore, the risk premia have reached their historical lows in the global financial markets. At the same time, financial markets exhibit a large degree of volatility, thereby deepening the concerns over a sudden risk repricing which, in turn, could stimulate a fall in the prices of fixed income instruments, particularly in the segment of riskier investments. Latvian credit institutions mostly do not trade assets in financial markets and their trading book comprises only about 2% of the credit institutions' assets; therefore, the direct effect of any swings in the value of the trading books on their profitability is negligible.

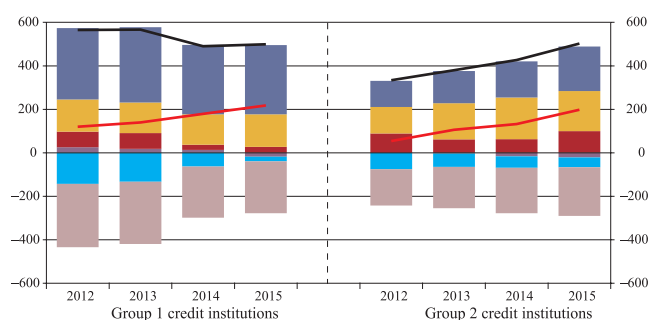
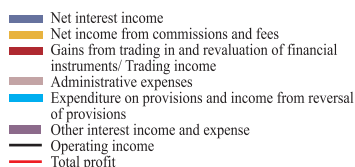
Overall, Latvian credit institutions have balanced their RSL and RSA, thereby reducing their short-term profit risks caused by a sudden rise in interest rates (see Subsection 2.3 "Market risk").

Both groups of credit institutions report growing non-interest income. In the case of Group 1 credit institutions, the annual increase in 2015 amounted to 6%, whereas for Group 2 credit institutions it was 14%. The main contributor in the case of Group 1 credit institutions was income from net commissions and fees. The increase of the non-interest income of Group 2 credit institutions was primarily supported by trading in financial instruments, including trading in securities and their revaluation. Tightening of the AML/CTF requirements could reduce the value of customer payments handled and hence also the income from commissions and fees on payments processed by credit institutions engaged in business with non-residents.

²¹ According to the ESRB risk panel (December 2015).

Chart 2.23

DISTRIBUTION OF CREDIT INSTITUTION INCOME AND EXPENSE AND PERFORMANCE RESULTS BY GROUP OF CREDIT INSTITUTIONS (SOLO BASIS)
(millions of euro)



Following performance efficiency improvement measures implemented in the previous years, in 2015 the administrative expenses of Group 1 credit institutions remained at the level of 2014. Meanwhile, the administrative expenses of Group 2 credit institutions grew by 7%. Overall, the credit institutions of both groups have improved their performance efficiency within the last five years, supporting a reduction of the credit institutions' cost-to-income ratio from an average of 72% in 2010 to 45% in 2015 which is substantially lower than the EU average (59.8%²²). The cost-reduction opportunities of credit institutions, however, are being gradually exhausted and so is the potential for using cost reductions as a means of sustaining profit. Moreover, the administrative expenses of Group 2 credit institutions are expected to grow because of the need to boost investment in information technologies and human resources associated with the tightening of the AML/CTF requirements, at the same time strengthening the sustainability of the credit institutions.

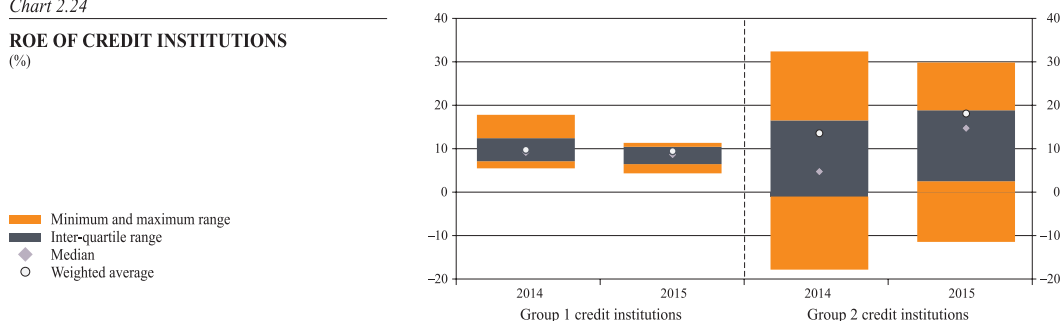
The aggregate (net) amount of expenditure on provisions and the income from reversal of provisions continued to contract in both groups of credit institutions in 2015, shrinking by 43% year-on-year. Aggregate (net) provisions of Group 1 credit institutions decreased by 67% in 2015 on account of a significant fall in both the amount of new provisions as well as recognition of income from reversal of provisions. In the case of Group 2 credit institutions, the amount of new provisions decreased by 8% in 2015, whereas the recognised income from reversal of provisions remained at the level of 2014. It is expected that the quality of the resident loan portfolio will continue to improve in 2016, whereas that of the non-resident loan portfolio will deteriorate; therefore, it is likely that some Group 2 credit institutions will have to build additional provisions for their outstanding non-resident loans.

ROE and ROA of Latvian credit institutions are still quite high at a global level, and exceed the EU average approximately two times²³. In 2015, ROE was 12.5% {11.1%}, whereas ROA stood at 1.3% {1.1%}. On average, ROE (see Chart 2.24) and ROA of Group 2 credit institutions are still higher than the respective ratios of Group 1 credit institutions, yet the range is wider. Within the first two months of 2016, ROE and ROA of credit institutions (10.0% and 1.2% respectively) were slightly lower than in the same period of 2015 (11.1% and 1.3% respectively). Further improvement of the return ratios will be difficult to achieve because of the shrinking income base. With a view to improving their return ratios, credit institutions can be expected to focus more on achieving higher capital efficiency (including increasing the dividend payments).

²² According to the EBA data on the third quarter of 2015.

²³ According to the EBA data, the average ROA and ROE of the EU credit institutions amounted to 0.38% and -6.4% respectively in the third quarter of 2015.

Chart 2.24

ROE OF CREDIT INSTITUTIONS
(%)**2.5 Capitalisation**

Overall, the capital adequacy ratios of credit institutions still exceed the regulatory requirements considerably, and the associated risks are low. The quality of credit institutions' capital is high, since own funds are primarily made up of CET1 capital. Individual Group 2 credit institutions still face the risk of decreasing capitalisation should their investment in the CIS countries be affected by materialisation of significant Russia-related shocks.

In 2015, the capital adequacy of credit institutions overall continued to improve and was well above the regulatory requirements (see Table 2.2) and the average level of the EU credit institutions²⁴. At the end of 2015, the total capital ratio of credit institutions stood at 22.4% on a solo basis, whereas CET1 ratio amounted to 19.5% (see Charts 2.25 and 2.26). On a consolidated basis, the capitalisation ratios stood at 21.4% and 18.5% respectively.

Table 2.2

CAPITAL REQUIREMENTS FOR CREDIT INSTITUTIONS IN LATVIA
(% no RSA)

Type of capital	CET1	Tier 1 capital (includes CET1 and additional Tier 1 capital)	Own funds (include Tier 1 capital and Tier 2 capital)
Minimum capital requirements	4.5	6.0	8.0
Capital conservation buffer ²⁵		2.5	
Countercyclical capital buffer ²⁶		0.0*	
Total capital requirements	7.0	8.5	10.5

* The decision was taken on 27 January 2016; the countercyclical capital buffer has to be maintained from 1 February 2017.

The average leverage ratio of credit institutions was 9.0% at the end of December 2015 {9.1%}. It was significantly higher than the minimum threshold of 3% set by Basel III and points to generally high capitalisation of credit institutions.

Total own funds of credit institutions increased slightly in 2015 (by 2.1%) on account of boosting the capital by means of retained earnings and inflows from investors. CET1 of credit institutions still constitutes the main share (86.8% on a consolidated basis) of own funds, ensuring high quality of capital. For Group 1 credit institutions, CET1 is almost the only element of own funds, while Tier 2 capital (mainly subordinated capital) makes up an essential part of own funds in the case of Group 2 credit institutions. None of Latvian credit institutions has additional Tier 1 capital. Thus, CET1 is equivalent to Tier 1 capital.

²⁴ According to the EBA data, in the third quarter of 2015, the average total capital and average Common Equity Tier 1 ratios of the EU credit institutions were 17.1% and 13.0% respectively.

²⁵ The capital conservation buffer of 2.5% above the minimum capital requirements is set as the so-called safety cushion to reduce the likelihood of a credit institution's capital falling to a level below the respective minimum requirement. If the relevant capital ratio declines below the total capital requirement (which includes the capital conservation buffer) but remains above the minimum capital requirement, this will not be considered as non-compliant with regulatory requirements; however, payments of dividends and bonuses will be limited.

²⁶ The rate for exposures to Latvia's residents.

Chart 2.25

DEVELOPMENT OF CAPITAL ADEQUACY RATIOS OF CREDIT INSTITUTIONS ON A SOLO BASIS* (% of RWA)

■ Total capital ratio
◆ CET1 capital ratio**
▲ Leverage ratio



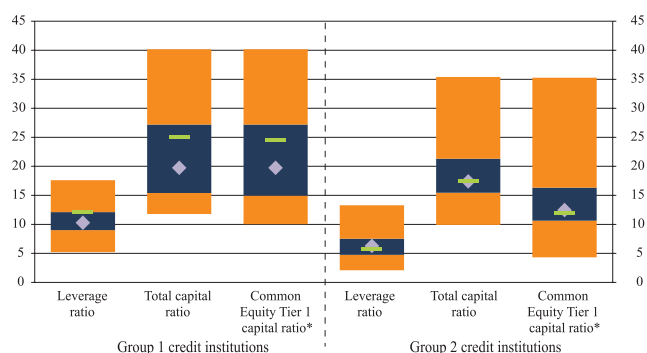
* Beginning with 2014, capital adequacy, including leverage ratio, is calculated in compliance with Regulation (EU) No 575/2013 of the European Parliament and of the Council and is not directly comparable with the indicators of the previous periods.

** For all credit institutions CET1 capital ratio is equal to Tier 1 capital ratio.

Chart 2.26

CAPITAL ADEQUACY RATIOS OF CREDIT INSTITUTION ON A CONSOLIDATED BASIS (at the end of 2015; %)

■ Minimum and maximum range
■ Inter-quartile range
◆ Median
— Weighted average



* For all credit institutions CET1 capital ratio is equal to Tier 1 capital ratio.

The capitalisation level of credit institutions is expected to remain high in 2016. Some Group 2 credit institutions still face the risk of decreasing capitalisation should their investment in the CIS countries be affected by materialisation of significant Russia-related shocks. It is likely that credit institutions with a higher capitalisation level could increase their dividend payouts in the future, in order to improve capital efficiency.

2.6 Shock-absorption capacity of credit institutions

The results of the sensitivity analysis and macroeconomic stress test conducted by Latvijas Banka suggest that the capacity of credit institutions to absorb a potential rise in credit risk caused by external and internal shocks (including Russia's country risk) is overall good. This is mainly determined by the high capitalisation level of credit institutions which has been supported by the capital increases implemented by individual credit institutions. Nevertheless, some institutions still need to strengthen their Tier 1 capital.

Latvijas Banka conducts a sensitivity analysis²⁷ and stress tests²⁸ of credit institutions on a regular basis. Estimates are based on the consolidated data of credit institutions as at the end of December 2015. The thresholds for stress tests are as follows: the total capital ratio of 8.0%, the Tier 1 capital ratio of 6.0% and the CET1 capital ratio of 4.5%²⁹. The assessment period will last until the end of the fourth quarter of 2016.

²⁷ A credit risk sensitivity analysis provides an indication of the magnitude of an increase in loans past due over 90 days a credit institution would be able to absorb before its capital adequacy ratios fall below the minimum capital requirements. 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 and 20% in the case of restructured loans which are not past due more than 90 days. Credit institution capital and RWA are reduced by the amount of the additional provisions.

²⁸ Macroeconomic stress tests measure the resilience of Latvia's credit institutions to various plausible but low-probability adverse macroeconomic shocks. The results of the credit risk stress tests allow assessing whether credit institutions have sufficient capital for absorbing losses stemming from a rise in credit risk in particularly severe and even extreme macroeconomic circumstances without additional capital injections.

²⁹ A characteristic feature of Latvian credit institution capital structure is the fact that Tier 1 capital requirement is met with CET1 capital; therefore, compliance with Tier 1 capital requirement automatically means compliance with the CET1 capital requirement as well. As a result, a relatively high stress test threshold is applied to high quality capital (CET1).

Box 3***Changes in sensitivity analysis and macroeconomic stress testing methodology***

Latvijas Banka continues to improve its framework for the credit risk sensitivity analysis and macroeconomic stress testing:

- credit risk sensitivity analysis is based on the data on credit institutions' loan portfolios on a consolidated basis;
- macroeconomic stress test uses the data on credit institutions' loan and securities portfolios on a consolidated basis;
- macroeconomic stress test additionally uses the data provided in country risk reports allowing to estimate the country risk associated with the granted loans more accurately;
- both in the sensitivity analysis and the macroeconomic stress test a provisioning ratio of 20.0% is applied to restructured loans which are not past due more than 90 days, in order to reflect higher default risk associated with this loan category. The set ratio equals the third quartile of the sample³⁰.

The results of the sensitivity analysis suggest that the credit institutions' capacity to absorb the potential increase in credit risk continued to improve in 2015. On a consolidated basis, credit institutions would have been able to absorb a potential rise in credit risk resulting in the share of loans past due over 90 days expanding by 11.8 percentage points (an increase of 10.5 percentage points on a solo basis) at the end of 2015.

Within the framework of the macroeconomic stress test, the credit institutions' capacity to absorb a rise in the credit risk associated with a slowdown of the global economic growth, including deterioration of Russia's macrofinancial situation, was analysed, as external developments remain one of the most significant sources of potential risks to the Latvian economy and financial system. With the external risks materialising and the domestic economic growth decelerating, the quality of the loan portfolio would suffer most in the case of Group 1 credit institutions, whereas for Group 2 credit institutions the risks are mainly affecting the holdings of assets of the CIS countries.

Baseline scenario

The baseline scenario is based on the macroeconomic forecasts prepared by the Latvijas Banka at the beginning of 2016. According to the forecasts, Latvia's GDP growth will decelerate in 2016, primarily due to external factors and the weak investment development. To take account of a potential risk of a further deterioration of the quality of the non-resident loan portfolio and the CIS securities portfolio, as well as a potential default on claims on MFIs of the CIS countries, the following assumptions have been made in the baseline scenario: in 2016, the PD for loans granted to residents of Russia, Ukraine and other CIS countries is 10%, whereas LGD amounts to 75%. The same assumptions have been made in relation to securities issued by the CIS countries and claims on MFIs of the CIS countries held on the balance sheets of Latvian credit institutions.

Stress scenario

The stress scenario analysed the response of Latvia's economy to a combination of three shocks: a 15% fall in external demand, deterioration of investor confidence resulting in a 20% decrease in investment and a 5% drop in private consumption. The scenario assumes that the shocks of the decrease in external demand and investment affect the Latvian economy in the first quarter of 2016. The drop in private consumption caused by deterioration of consumer confidence follows with a one quarter lag, i.e. it happens in the second quarter of 2016.

This scenario additionally assumes a 2.5 times bigger PD for loans to residents of the CIS countries in comparison with the baseline scenario in 2016 (25%) and a 75% LGD. The

³⁰ The sample includes data on provisioning ratios applied by credit institutions to restructured loans which are not past due more than 90 days in 2014 and 2015.

same assumptions have been made in relation to securities issued by the CIS countries and claims on MFIs of the CIS countries.

Changes in Latvia's real GDP in the stress scenario were evaluated employing the macroeconomic model of Latvijas Banka. The macroeconomic parameters of the stress scenario are reflected in Table 2.3. The effect of the stress scenario on the quality of loans to residents was assessed by applying the credit risk model of Latvijas Banka. The stress test assumed that in the case of loans to Lithuanian and Estonian residents the credit risk developed in the same way as the credit risk of the Latvian resident loan portfolio. The losses stemming from loans to non-residents, securities of the CIS countries and claims on MFIs were calculated according to the parameters assumed in the scenarios.

Table 2.3

PARAMETERS OF THE MACROECONOMIC STRESS TEST
(%; in percentage points)

Credit risk parameters and macroeconomic shocks	Baseline scenario	Stress scenario
Latvia		
Decrease in external demand	0	-15
Decrease in investor confidence (investment)	0	-20
Decrease in consumer confidence (private consumption)	0	-5
Annual changes of Latvia's GDP in 2016	2.3	-6.7
3-month EURIBOR ³²	-0.094	-0.094
Changes in the share of loans past due over 90 days in the resident loan portfolio in the fourth quarter of 2016	-0.2	7.2
Ukraine, Russia and other CIS countries		
PD	10	25
LGD	75	75
Expected loss rate	7.5	18.8

According to the baseline scenario, the quality of the domestic loan portfolio of credit institutions will continue to improve gradually. At the same time, an increase in loans past due is anticipated in the non-resident loans portfolio. In the stress scenario, the share of loans past due over 90 days in the resident loan portfolio would expand by 7.2 percentage points, reaching 13.7% by the end of 2016. Table 2.4 features aggregated results of the stress tests.

Table 2.4

AGGREGATED MACROECONOMIC STRESS TEST RESULTS FOR THE STRESS SCENARIO

Indicator	Stress test result
Estimated losses (millions of euro)	686.8
Additionally required provisions (% of total credit institution assets)	2.4
Total capital ratio	
Number of credit institutions with the total capital ratio below 8%	–
Additionally required capital (millions of euro)	–
Tier 1 capital ratio	
Number of credit institutions with Tier 1 capital ratio below 6%	3
Additionally required capital (millions of euro)	26.8
Credit institution assets (% of total credit institution assets)	22.6
CET1 capital ratio	
Number of credit institutions with CET1 capital ratio below 4.5%	1 ³²
Additionally required capital (millions of euro)	0.6

³¹ Annual average of 3-month EURIBOR futures rates; source: Bloomberg 09.02.2016.

³² The share of credit institution's assets in total credit institution assets is lower than 1.5%.

In the event of the stress scenario materialising, the estimated losses could reach 686.8 million euro or 2.4% of the total credit institution assets. The shock would cause three credit institutions problems to comply with the minimum capital requirement with regard to Tier 1 capital, of which one credit institution would also be unable to comply with the minimum capital requirement for CET1 capital. None of the credit institutions would have negative capital.

A slight deterioration of compliance with the capital requirements in comparison with the results for 2014 can be explained by changes in the stress testing methodology: first, the scope of testing has been expanded as the stress test is using the consolidated data now; second, the provisioning ratio for restructured loans has been increased due to higher credit risk.

The overall conclusion is that the capacity of credit institutions to absorb shocks stemming from significant deterioration of the external macrofinancial environment is good. Nevertheless, considering the lesson learned from the previous crisis that a higher quality capital is better capable of absorbing the potential losses, special attention has to be paid to strengthening of Tier 1 capital of credit institutions.

3. DEVELOPMENT AND RISKS OF NBFS

The growth of NBFS was relatively buoyant in 2015. This was supported by increased household savings in pension funds. The growth rate of loans (mainly financial leasing granted to non-financial corporations) by NBFS accelerated. The amount of new loans granted to households by NBFS continued to grow rapidly. However, this was only partly reflected in the amount of loans outstanding to households as the number of assigned debts to third parties also increased (primarily in the segment of instalment and payday loan providers). At the same time, the growth of insurance corporations became slower. On account of the persistently low interest rates and heightened global financial market volatility, the profitability risk of the rest of the NBFS financial services providers, particularly life insurance corporations, is increasing. In 2015, heightened global financial market volatility resulted in falls in investment yields in nearly all segments of other NBFS financial services providers, particularly insurance corporations and pension funds. Overall, the share of NBFS assets in Latvia's financial sector was still quite moderate, and the interconnectedness of the NBFS with the credit institution sector does not pose significant risks to the financial stability as a whole.

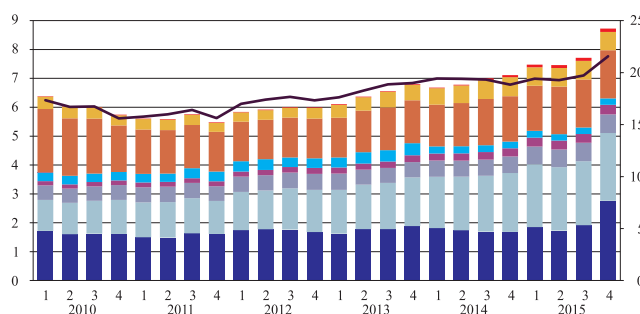
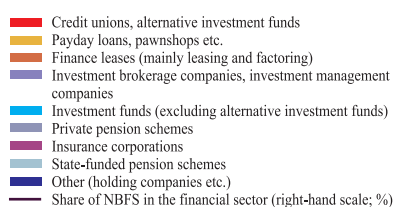
3.1 Development of NBFS

In 2015, the NBFS assets grew by 22.7%, reaching 8.8 billion euro {7.2 billion euro} at the end of the year. The assets of NBFS (excluding financial intermediaries, such as holding companies)³³ increased by 10.0%. The capital accumulated in the pension funds, in particular the private pension funds, expanded rapidly. At the same time, insurance corporations in non-life and life insurance segments showed more moderate growth. In the segment of lending services providers, the growth rate of financial leasing services provided to non-financial corporations accelerated. Loans granted to households by NBFS continued to grow.

In 2015, the share of NBFS assets in the total assets of Latvia's financial sector increased, reaching 21.6% {18.8%} at the end of the year (see Chart 3.1), including the share of NBFS assets in the financial sector (excluding the assets of holding companies) rose to 14.8% {14.4%} and the share of NBFS assets in the assets of the financial sector (excluding the capital accumulated by holding companies and under state-funded pension schemes) was 9.0% {9.0%}.

Chart 3.1

NBFS ASSETS IN BREAKDOWN BY SUBSECTOR (billions of euro)



Overall, the NBFS does not represent systemic risks to the financial stability as, firstly, the amount and share of NBFS assets in Latvia's financial sector was still quite moderate; secondly, the interconnectedness of the NBFS with Latvian credit institutions (fixed capital investments and placing of assets) was also insignificant and had no substantial effect on the consolidated profit of credit institutions; thirdly, the market concentration

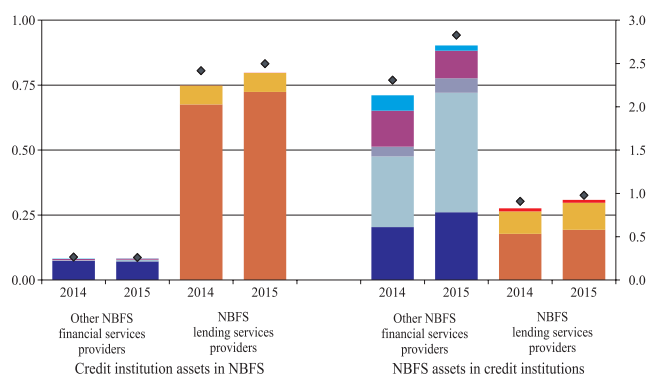
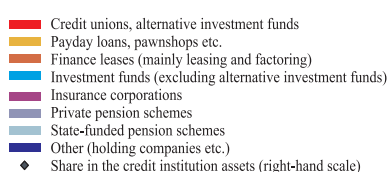
³³ In 2015, the volume of assets of the financial intermediaries, such as holding companies etc., increased by 63.8%, reaching 2.8 billion euro at the end of the year. Holding companies are financial corporations that hold the assets of a group of subsidiary corporations (they hold controlling positions in their equity) and do not provide any other service to the enterprises in which their equity is held; therefore, they are not directly involved in the process of ensuring the functioning of Latvia's financial system and do not represent additional risks to the stability of Latvia's financial system. Holding company data are included in the assets of NBFS to assess also the scope of the unsupervised financial market in Latvia.

of NBFS was relatively low³⁴, and there were rather strong possibilities of mutual substitution³⁵.

The indirect interconnectedness of the NBFS with Latvian credit institutions (mutual investments and placing of assets) was likewise insignificant and did not represent material risks to the financial stability of credit institutions. At the end of 2015, both the credit institution assets in NBFS (loans, investments and other assets) and the NBFS deposits with credit institutions did not exceed 4% of the credit institution assets (see Chart 3.2). The interconnectedness of individual credit institutions was more significant, but did not exceed 10% of the credit institution assets. However, the intensity of placing assets between the NBFS and credit institutions intensified. This was on account of state-funded pension schemes whose fund managers significantly increased time deposits with Latvian credit institutions in the second half of 2015 by choosing a 'wait-and-see' investment strategy in the environment of uncertainty in foreign financial markets and giving preference to more liquid types of investment.

Chart 3.2

INTERCONNECTEDNESS OF THE NBFS WITH LATVIAN CREDIT INSTITUTIONS
(billions of euro)



Several NBFS segments (financial leasing, insurance) have close direct links with credit institutions as most of these service providers are the subsidiaries of Latvian credit institutions. However, investment of credit institutions in the share capital of NBFS accounted only for 1.1% of the credit institution assets at the end of 2015. Moreover, investment in the NBFS enables credit institutions to slightly diversify the sources of profit, thus improving their consolidated profit indicators (the profit share of non-bank financial subsidiaries of credit institutions in the consolidated profit of parent credit institutions was, on average, around 5% in 2014³⁶).

3.2 NBFS lending services

Loans granted to residents by NBFS lending services providers³⁷ increased by 6.3%, reaching 1.7 billion euro in 2015. This also led to a rise in the assets of NBFS lending services providers. The growth in loans was mostly driven by financial leasing. The share of the assets of NBFS lending services providers in the total assets of the financial sector is still low (5.9% {6.1%} in 2015).

The growth rate of loans granted to non-financial corporations by NBFS accelerated in 2015 (see Chart 3.3). In 2015, the total leasing portfolio grew by 10.5%, reaching 1.2 billion euro (including financial leasing granted to non-financial corporations

³⁴ According to the Herfindahl–Hirschman index method, a low level of market concentration exists in the segments of insurance corporations and consumer short-term lending services providers, but a comparatively higher – in the segments of investment funds, investment management companies and pension funds, and leasing companies.

³⁵ In the event of a shock to a corporation's operation, other market participants could replace its functions.

³⁶ According to the data for 2014 compiled by LURSOFT Ltd.

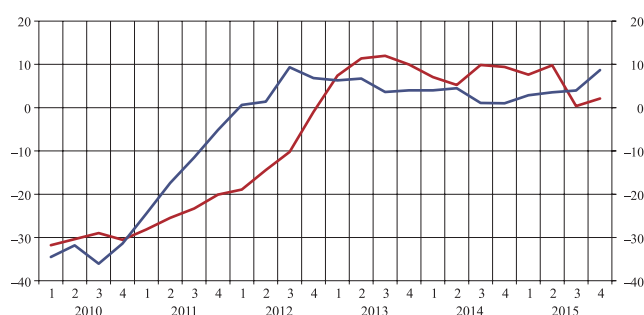
³⁷ 165 merchants {159}: 18 leasing companies (in accordance with NACE Rev. 2 classification, Section K "Financial and Insurance Activities", class 64.91); 79 payday lenders, consumer credit lenders and other lending services providers (class 64.92 and ESA 2010 125000); 22 pawnshops (class 64.92 and ESA 2010 127000); 34 credit unions; 12 alternative investment funds.

increased by 7.8%, amounting to 0.9 billion euro) in comparison with the end of 2014. The expansion of the financial leasing portfolio was driven by an increase in lending recorded in agriculture, forestry and fishing due to the availability of the EU fund co-financing. The growth rate of leasing loans is likely to exceed Latvia's GDP growth rate in 2016. The main profitability risk of leasing companies is the potential deterioration of the creditworthiness of Latvian non-financial corporations in the event of a severe external shock. In 2015, the financial vulnerability of the leasing companies' customers, overall, continued to decrease gradually.

Chart 3.3

OUTSTANDING AMOUNT OF LOANS GRANTED TO RESIDENTS ANNUAL GROWTH RATE (%)

— To households
— To non-financial corporations



In addition to financial leasing, non-financial corporations increasingly used risk capital as an alternative source of funding, especially at the beginning of their operations. The assets of alternative investment funds increased by 77.7% in comparison with 2014; however, their value was still very low (88.6 million euro).

At the same time, the outstanding amount of loans granted to households by NBFS rose by merely 2.1% {9.4%} in 2015 according to the CSB data. According to the CSB data, the outstanding amount of loans granted to households by NBFS amounted to 427.9 million euro (including financial leasing – 50.1%, payday loans, consumer loans and other loans – 45.9%, and loans granted by pawnshops – 4.0%) at the end of 2015. The share of NBFS in the total outstanding amount of short-term loans granted to households by the financial sector stabilised and stopped increasing (50.3% at the end of 2015; 24.1% at the end of 2012).

Although the outstanding amount of loans granted to domestic households by NBFS increased at a slower pace than in 2014 according to the CSB data, the amount of new loans granted to households by NBFS continued to grow rapidly in 2015 pursuant to the data of the Consumer Rights Protection Centre³⁸. Slower changes in the outstanding amount of loans could be largely explained by an increase in assigned debts to be recovered by a third party in the segments of payday loans, consumer loans and other loans (excluding leasing loans), and this in turn confirms the relatively low quality of the loan portfolio in these segments.

Although overall NBFS household lending is still on the rise, shorter-term lending (particularly loans up to 14 days) to households posted more moderate growth in 2015. This was partly due to the restrictions stipulated in the regulatory framework governing consumer lending at the beginning of 2015 (in effect as of 1 January 2016), providing for more stringent requirements for consumer lending service providers³⁹.

With new types of non-bank lending developing, the improvement of the legal environment still takes place with the purpose of promoting responsible NBFS lending (e.g. the establishment of a planned legal framework for mutual lending platforms including crowd-funding).

³⁸ The Consumer Rights Protection Centre "Data on the Non-bank Consumer Lending Sector" (2015).

³⁹ The restrictions on total costs associated with loan repayment with regard to the amount of a loan initially paid out and the maximum interest rate on a loan (it cannot exceed 0.25% of the initial amount of a loan per day for loans longer than 30 days).

3.3 Other NBFS financial services

Core business of other NBFS financial service providers⁴⁰ (pension funds and investment funds, insurance corporations etc.) is primarily related to the servicing of household savings, risk insurance or the holding of shares of Latvian non-financial corporations. Overall, other NBFS financial services providers still continue to show stable growth, thus contributing to an increase in household savings. In 2015, their assets grew by 31.2%, reaching 6.4 billion euro {4.9 billion euro} at the end of the year (including by 13.9% (to 3.6 billion euro) {3.2 billion euro} (excluding the assets of holding companies)). The share of other NBFS services providers in the overall financial sector was still quite moderate (15.6% {12.8%} including 8.3% (excluding the assets of holding companies) and 3.1% (excluding the funds accumulated by holding companies and under state-funded pension schemes)).

The assets of pension funds continued to increase in 2015. The assets of state-funded pension schemes grew by 15.3%, amounting to 2.3 billion euro {2.0 billion euro}. The increase was primarily determined by amendments to the law establishing the redistribution of the pension capital between the first and second pillars of the pension scheme⁴¹. With long-term household savings increasing, the assets of pension schemes managed by private pension funds rose by 17.2%, reaching 331.5 million euro {282.9 million euro} at the end of 2015. This was mainly supported by the increasing level of household income. However, the share of households depositing savings with private pension funds remained low (only 20% of the participants of the second pillar pension scheme deposited savings also with private pension funds).

The return on investment of pension schemes managed by pension funds strongly depends on developments in international financial markets. The increasing uncertainty and heightened price volatility observed in the global financial markets, particularly in the stock markets of developing countries, contributed to lower returns on investment of pension schemes of pension funds in 2015. The persistently low interest rates were still reported as a yield restricting factor. The continuation of the above factors is the main operational risk of pension funds, and they may have an adverse impact on retirement savings of households.

In 2015, the average return on investment of state-funded pension schemes decreased to 1.9% {5.3%} and ranged from 0.2% to over 4% depending on the investment strategy for the investment plan. The managers of state-funded pension schemes preferred to deposit a part of funds with Latvian credit institutions on account of the growing uncertainty and volatility (see Subsection 2.2 "Funding and Liquidity Risk").

Private pension funds whose participants represent younger age groups and show greater readiness to run risks could ensure higher returns on investment than state-funded pension schemes in 2015 (an average of 2.3% {5.2%}).

In 2015, insurance corporations recorded more moderate growth both in non-life and life insurance segments. In 2015, the total level of gross premiums signed by all insurance corporations grew only somewhat (by 2.6%) {9.9%}, amounting to 531.1 million euro at the end of the year in comparison with 2014. In 2015, the assets of Latvian insurance corporations (including the assets of branches of foreign insurance corporations in Latvia and the assets of foreign branches of Latvian insurance corporations) increased by 13.9%, reaching 924.0 million euro {811.0 million euro} at the end of the year, of which one third were the assets of branches of foreign insurance corporations.

⁴⁰ 668 merchants {573}: Of 573 merchants, 44 are insurance corporations, pension funds, investment management companies and investment brokerage companies, while the rest of them are other financial services providers engaged in activities of holding companies (in accordance with NACE Rev. 2 classification, Section K "Financial and Insurance Activities", class 64.20), trusts, funds and similar financial entities (64.30), activities auxiliary to financial service and insurance activities (class 66), as well as other financial service activities, except insurance and pension funding (class 64.99).

⁴¹ In 2012, the Saeima of the Republic of Latvia decided on the reallocation of the pension capital that was launched in 2013 and is likely to continue until 2016. Under the process of reallocation, the social security contribution rate increased from 4% to 5% of the compulsory social security contributions per person, and is likely to reach 6% in 2016.

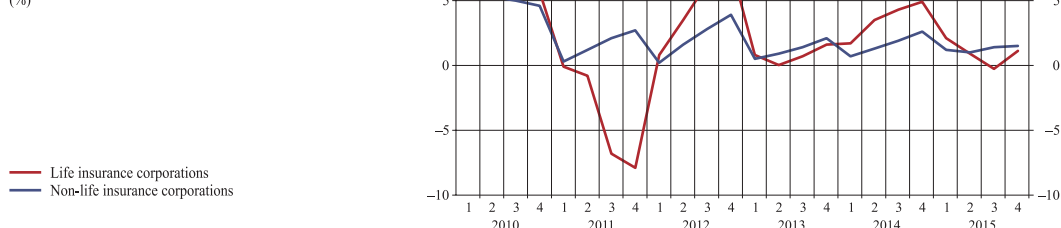
Slower growth of non-life insurance corporations was determined by a decline in premiums earned by foreign branches. At the same time, life insurance corporations were influenced by the persistently low interest rates and heightened volatility in the global financial markets. Amidst the environment of low interest rates, life insurance corporations set increasingly low guaranteed yield rates on new contracts, thus restricting the attraction of new customers. On account of the persistently low interest rates, the long-term profitability risks of life insurers' are increasing (see Box 4 entitled "The impact of the low interest rate environment on Latvian life insurance corporations").

Volatility in the global stock markets contributed to lower profitability of life insurance corporations, ending 2015 with losses of 0.9 million euro (they earned profit of 3.4 million euro in 2014). In 2015, the return on investment of life insurance corporations registered in Latvia fell to 1.1% (4.9%); see Chart 3.4).

However, lower yields have not contributed to the deterioration of the solvency of insurance corporations, which still remains at a high level. At the end of 2015, the solvency ratio of life insurance corporations⁴² stood at 201.9% (176.3%), while that of non-life insurance corporations was 145.1% (154.9%). The solvency of insurance corporations is enhanced by Solvency II regime (the single EU solvency and supervision regime) which came into effect on 1 January 2016.

Chart 3.4

INVESTMENT YIELD OF INSURANCE CORPORATIONS (%)



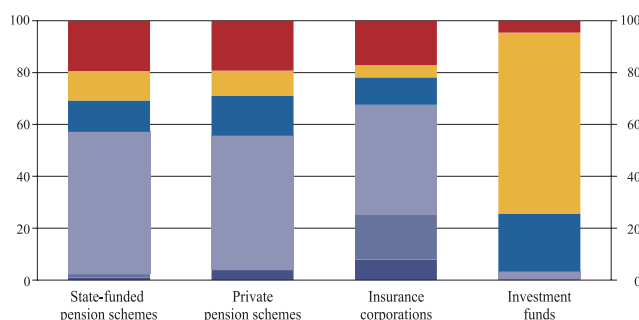
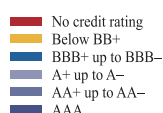
Investment funds of investment management companies (excluding alternative investment funds engaged in lending) took advantage of the volatility in the global financial markets. Net asset growth registered in 2015 as a result of their investment was the fastest in the last five years. However, the dispersion of returns of investment funds was quite high, with returns of investment funds ranging from -6.7% to +39.7% depending on the investment policy pursued by the respective investment fund. With interest rates declining, bond funds recorded more buoyant growth, whereas stock funds experienced a high degree of volatility that persisted also at the beginning of 2016. In addition to market volatility, the profitability of some types of investment funds (e.g. money market funds, whose main source of profit is interest income on short-term investment) was eroded by the low interest rate environment, and two money market funds were closed in Latvia in 2015. The assets of investment funds decreased somewhat (by 2.2%) (to 223.0 million euro) (228.1 million euro) at the end of 2015.

Low interest rates continue to stimulate a search for yield behaviour; at this stage, however, the quality of investment portfolios of other NBFS financial service providers has not worsened. In 2015, the structure of investment portfolios remained broadly unchanged compared with 2014, excluding the effect of some companies' willingness to increase deposits with credit institutions against the background of heightened financial market uncertainty. Investment funds still record the highest share of heightened risk investment, with debt securities with a credit rating below BBB accounting for 73.1% of the total investment portfolio at the end of 2015 (see Chart 3.5).

⁴² The solvency ratio is based on the relationship between own funds and the solvency requirement. The lowest admissible level of this ratio is 100%.

Chart 3.5

CREDIT RATING OF THE INVESTMENT PORTFOLIO (%)



Box 4

Effects of low interest rate environment on life insurance companies in Latvia

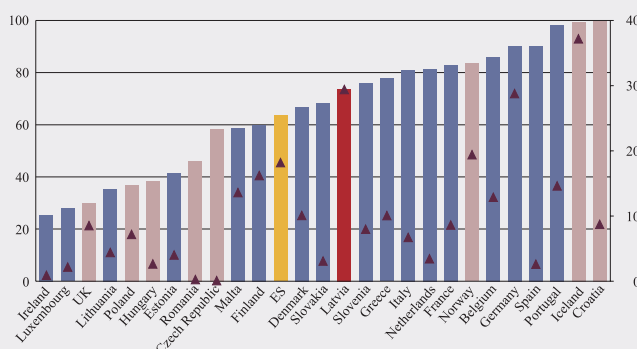
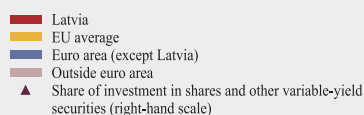
In the European non-bank financial sector, a long-persisting period of low interest rates is weighing most on sustainability of life insurance companies. Within a low-return environment, fixed yield products under a long-term insurance contract period (e.g. lifetime pension plans⁴³) may pose risks to the solvency position of life insurance companies and to the stability of the entire financial system. Risks to life insurers' profitability along with those to financial institutions have been ranked as a key risk for financial stability in the ECB's Financial Stability Report 2015.

In Latvia, life insurance companies do not pose a systemic risk to overall stability of the financial system, because the respective company assets are still small, accounting for mere 1.5% of Latvia's GDP⁴⁴. Nevertheless, due to the low interest rate environment, risks to their long-term profitability have also slightly increased.

First, on the liabilities side, the Latvian life insurers have a rather high proportion of financial products with minimum return (yield or income) guarantees extended to policyholders, the insurers themselves thereby undertaking investment risks (according to the EIOPA data, such products accounted for 73.7% of liabilities in 2014; see Chart 3.6). In the existing low-income environment, insurance companies find it ever more difficult to maintain returns in excess of guaranteed returns. At the same time, risks are partly curbed by Latvian life insurance company liabilities containing quite an insignificant share of lifetime pension plans, for which long liability periods and regular benefit payments are typical.

Chart 3.6

SHARE OF GUARANTEED INCOME CONTRACTS IN TECHNICAL RESERVES OF LIFE INSURANCE COMPANIES⁴⁵ (%)



Second, profits of Latvian life insurers depend primarily on investment portfolio returns. In the composition of this portfolio, in turn, investments in shares and other variable-yield securities is notably predominant (54%; see Chart 3.7) and render it very vulnerable to international financial market volatility. A sudden repricing of risk premia may amplify financial market fluctuations and adversely impact profitability of insurers. The high stock

⁴³ Pension funds guaranteeing income to policyholders face heightened risks; there are no such funds in Latvia, however.

⁴⁴ 53% of GDP on average in the EU according to EIOPA data in 2014.

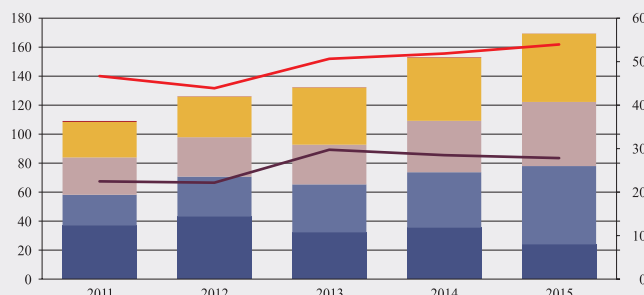
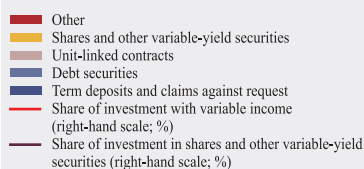
⁴⁵ Technical reserves are potential liabilities of insurer calculated on the basis of undertaken insurance contracts and accepted reinsurance.

market volatility of 2015 has had a negative effect on Latvia's life insurance company profits, the latter losing 0.9 million euro (3.4 million euro gain in 2014).

Chart 3.7

COMPOSITION OF INSURANCE COMPANY INVESTMENT PORTFOLIO

(millions of euro)



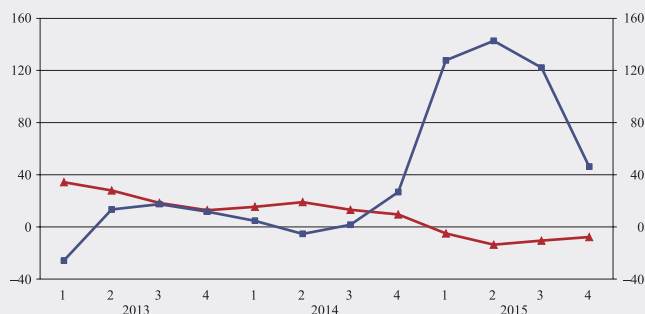
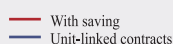
Third, low market interest rates will force life insurance companies towards balance sheet liability valuation at an ever lower discount rate, pushing up the current value of liabilities and, consequently, negatively affecting the compliance with the capital requirement. At the end of 2015, however, the solvency indicator for Latvian life insurance companies hovered high, at 201.9% {176.3%}.

Deterioration of insurance companies' profitability may trigger a search for higher yields (including investing in securities of lower quality and liquidity). Although in the course of last two years the share of investment in shares and other variable-yield securities in Latvian life insurance companies' investment portfolio has not increased markedly⁴⁶ (see Chart 3.7), it is above the EU average (see Chart 3.6). It can primarily be explained by comparatively strong risk-taking behaviour of insurance policyholders owing to their relatively low average age. Policyholders are willing to opt for contracts with lower guaranteed income yet higher potential investment return. Placement of savings with higher-risk investments is a factor slightly boosting financial vulnerability of households. Moreover, the new transaction data suggest that most recently households have been opting for life insurance policies without guaranteed income on an increasing scale (in the fourth quarter of 2015, the predominance of unit-linked insurance contracts strengthened by 46.2% annually; see Chart 3.8). As a result, household savings are becoming more sensitive to market volatility. Vis-à-vis the EU average, life insurance savings in Latvia continue to constitute a tiny part of total household assets (below 1%; 9% in the EU on average at end-2014), and, consequently, do not drive household financial vulnerability upwards notably. In the medium term, however, investment risk implications for households in combination with low investment returns may restrict their willingness to augment savings for future via life insurance products.

Chart 3.8

NET INSURANCE PREMIA WRITTEN

(cumulative during a year; annual growth rate; %)



Despite the long-term profitability risk of Latvian life insurance companies somewhat growing amid the environment of low interest rates, it does not have serious overall implications for the stability of these companies. The central risk-reducing factor is their high-level solvency, supported by the fact that life insurance companies operating in Latvia basically are the daughter companies of either Latvia's credit institutions or large foreign insurance companies.

⁴⁶ The increase in the share of investment in stocks and other variable-yield securities observed in 2013 can be explained by the decision of life insurance companies thereafter to place a part of liquid assets in short-term deposits with the foreign money market funds.

4. SYSTEMICALLY IMPORTANT PAYMENT AND SETTLEMENT SYSTEMS

Latvijas Banka assessed financial risks of the systemically important financial market infrastructures TARGET2-Latvija and DENOS within the oversight framework also in 2015, since the operational disruptions of the above infrastructures might affect the financial stability in the country. The assessment confirmed that the probability of systemic risk was persistently low in the systems. The above infrastructures provided efficient and secure payment and settlement environment to their participants and the entire financial system, and their smooth operation facilitated the financial stability.

Smooth operation of the financial market infrastructures is crucial for the safeguarding of the financial stability. Payment and settlement systems are part of the financial market infrastructure and are used for the settlement of transactions executed by the financial market participants. Liquidity problems incurred by the financial market participants in a payment or settlement system or an operational disruption in a system, where such system would be insufficiently protected against operational risk, may trigger further disruptions among the participants of the system or systemic disruptions in the financial system.

4.1 Payment systems

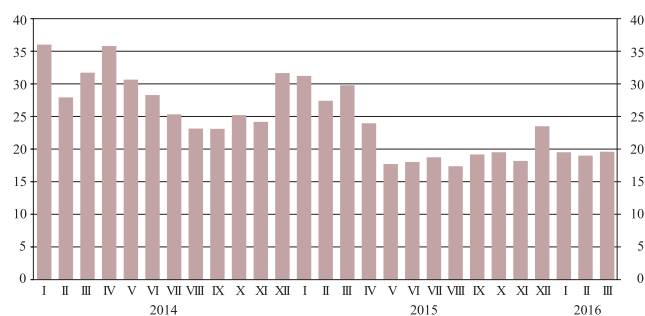
Latvijas Banka, together with other participants of the European System of Central Banks, ensured the operation of TARGET2, the Trans-European Automated Real-time Gross settlement Express Transfer system. Latvijas Banka maintained the component system TARGET2-Latvija, enabling the following: the settlement of the Eurosystem's monetary policy operations, interbank settlement of large-value payments, settlement of urgent customer payments in euro and final settlement in euro for the EKS, DENOS and the payment card processing system of First Data Latvia Ltd.

Statistical data

In 2015, 359.1 thousand payments in the value of 264.7 billion euro were processed in TARGET2-Latvija. The total value of payments processed in TARGET2-Latvija recorded a decline of 22.8% in comparison with 2014 (see Chart 4.1 for the monthly value dynamics of the payments processed). This was largely on account of a change in liquidity management methods of some credit institutions, members of the Nordic and Baltic group, by using TARGET2-Latvija. Moreover, at the end of 2014 the EKS established a direct connection with the STEP2 maintained by EBA Clearing. As a result, the settlement procedure with the connected system was changed by replacing the settlement for full debit and credit positions with the net settlement balance. In 2015, the daily average of payments processed in TARGET2-Latvija amounted to 1 403 payments in the value of 1.0 billion euro, while the daily average of such payments comprised 1 417 in the value of 0.9 billion euro in the first quarter of 2016.

Chart 4.1

**VALUE OF PAYMENTS EXECUTED
IN TARGET2-LATVIJA**
(billions of euro)



Liquidity adequacy

Latvijas Banka performed simulations of TARGET2-Latvija by means of the payment and settlement system simulator (model BoF-PSS2), developed by Suomen Pankki – Finlands Bank, in order to monitor the adequacy of liquidity in TARGET2-Latvija and determine the scope of impact on the participants' settlements, should any of the largest participants default on payments.

The overseers performed January 2015 data simulations using data on payments processed and liquidity available to the participants. Compared to other months of 2015, January saw the largest total value of payments carried out in TARGET2-Latvija and the smallest value of account balances. Therefore, the simulation results for January allow drawing conclusions about the liquidity necessary throughout 2015. All payments executed in TARGET2-Latvija were taken into account in the simulations, including the transfers to Latvijas Banka made by its participants upon resorting to the Eurosystem's deposit facility. As regards liquidity available to the participants, an option to use intraday credit was also provided.

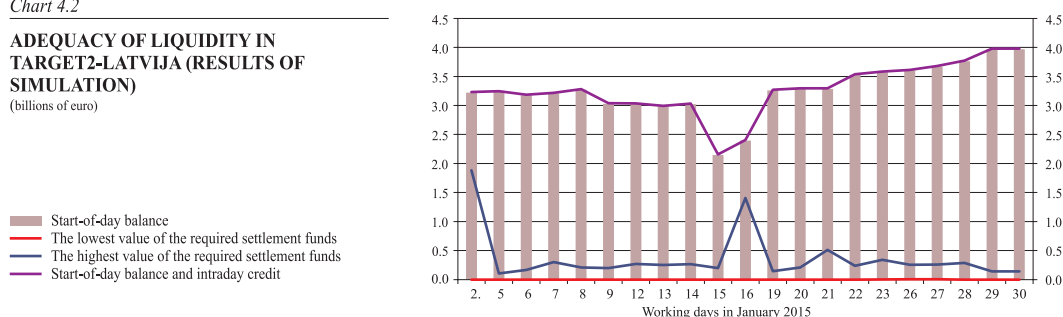
To assess the adequacy of liquidity in TARGET2-Latvija, the overseers evaluated the amount of the settlement funds necessary for the execution of all payments submitted during the day. The following indicators were assessed: a lower bound of the settlement funds, i.e. the value of the settlement funds providing for the settlement of all payments by the end of TARGET2-Latvija business day at the latest, and an upper bound of the settlement funds, i.e. the value of the settlement funds ensuring an immediate execution of all the submitted payments.

The simulation results showed that the daily upper bound of the settlement funds amounted to 396.6 million euro on average or 12.14% of the settlement fund value available to the TARGET2-Latvija participants. The average daily lower bound of the settlement funds stood at 0.5 million euro or 0.01% of the settlement fund value available to the participants in TARGET2-Latvija. On none of the days did the lower bound of the settlement funds exceed 5.2 million euro or 0.14% of the total amount of liquidity. The results obtained show that the level of liquidity provided in TARGET2-Latvija in 2015 overall was substantially higher than the required level of liquidity (see Chart 4.2).

Chart 4.2

ADEQUACY OF LIQUIDITY IN TARGET2-LATVIJA (RESULTS OF SIMULATION)

(billions of euro)



The overseers performed simulations of stress situations to assess the scope of impact on the participants' settlements, should any of the largest participants (in terms of the extent of impact) default on payments. Two criteria were applied to determine the participants of TARGET2-Latvija having the largest impact on the system: the value of payments submitted by a particular participant and the factor of interdependency indicating the extent to which the participant is linked with other participants through the payment flows.

By conducting simulations of the stress situations, the overseers analysed potential consequences that may occur, should any of the identified largest TARGET2-Latvija participants having the largest impact default on payments during one business day. This is the most prudent scenario with the minimum likelihood to occur and the largest possible impact, since in the event of a longer disruption, other participants would react to a participant's default on payments by redirecting their payment flows and not making payments to the above participant, thus significantly minimising the impact.

The simulations of the stress situations in TARGET2-Latvija suggested that the level of liquidity provided on the settlement accounts of TARGET2-Latvija participants was sufficiently high and the settlement of payment orders submitted by the participants would be delayed only in particular cases where any of TARGET2-Latvija participants having the largest impact would not make settlements the whole day. Hence it might be concluded that the materialisation of systemic risk remained low.

Business continuity

TARGET2-Latvija is a component system of TARGET2. In 2015, the availability ratio of TARGET2 stood at 99.98% (100.0% in 2014). No operational disruptions were identified in TARGET2 in the first quarter of 2016.

4.2 Securities settlement systems

In 2015, DENOS was the only systemically important securities settlement system in Latvia since it was used for the monetary policy operations of the Eurosystem and mobilisation of collateral securities of the participants in the monetary policy operations for the purpose of receiving an intraday credit in TARGET2-Latvija. The cash leg of DENOS financial instrument related settlement in euro was executed in TARGET2-Latvija.

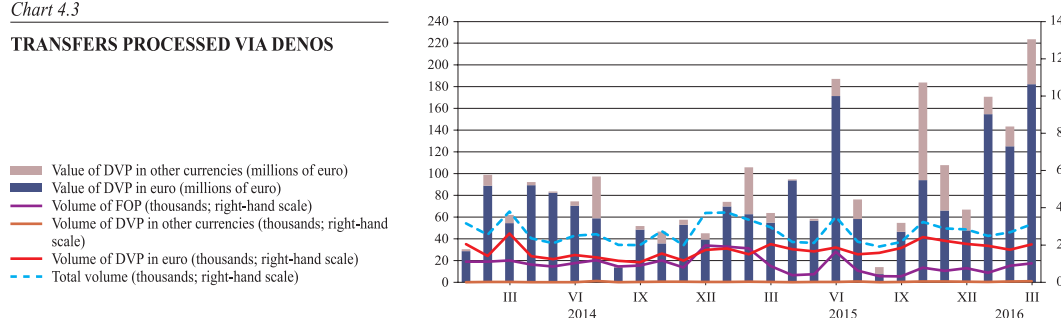
Statistical data

In 2015, the number of financial instruments transfers (hereinafter, the transfers) processed in DENOS stood at 33.1 thousand (a 4.8% increase year-on-year). The increase was due to a rise in DVP transfers. The total value of DVP transfers amounted to 1.1 billion euro in 2015 (a 43.9% increase year-on-year). The value of DVP transfers grew largely on account of a 125.3 million euro increase in the over-the-counter DVP transfers executed in euro and a 166.5 million euro rise in DVP transfers executed in US dollars. The amount of debt securities sold at the auctions organised by the Treasury grew by 34.3 million euro. The number of transactions in June and October suggests that the overall rise in the value was secured by some large-value transactions in these months (see Chart 4.3). In 2015, the credit institutions' demand for the government debt securities was 5 times higher than the amount sold, indicating an excess liquidity which the credit institutions were willing to invest in low-risk securities. A decline in the value of DVP transfers in August 2015 was attributable to the fact that the Treasury did not organise any Latvian government debt securities' auctions during that month.

In the first quarter of 2016, the value of transfers executed via DENOS expanded due to an increase in the amount of securities sold at the Latvian government debt securities auctions and some large-value transactions performed in other securities.

The transfers and DVP transfers processed daily on average in DENOS stood at 132 and their value was 4.3 million euro in 2015.

Chart 4.3

TRANSFERS PROCESSED VIA DENOS**Liquidity adequacy**

Cash leg settlements executed in euro in DENOS were processed via TARGET2-Latvija where the participants had substantial account balances. In 2015, the cases of a settlement delay due to insufficient funds were not identified, hence it can be concluded that the LCD participants provided the necessary liquidity in the amount of 100% for cash leg settlement of DVP transfers executed in euro.

The LCD participants provided the necessary liquidity in the amount of 100% for cash leg settlement of DVP transfers effected in euro through TARGET2-Latvija in the first quarter of 2016 as well.

Business continuity

In 2015, the availability of DENOS was 99.3% (100.0% in 2014). In 2015, one disruption was identified in DENOS due to a loss of connection to the SWIFT infrastructure. During the disruption, an alternative data exchange solution was applied by the LCD, and thus the settlement in DENOS was not affected.

No operational disruptions were identified in DENOS in the first quarter of 2016.

Risk assessment

In the securities settlement systems, risks may be related both to cash leg settlement and financial instruments settlement. Latvijas Banka assessed the probability of the materialisation of systemic risk for the euro transfers via DENOS in 2015, since such a settlement might affect the operation of TARGET2-Latvija.

Cash leg settlement

The concentration ratio (the share of the volume and value of transactions of the five largest participants in the overall volume and value of transactions) above 80% would point to the probability of the systemic risk materialisation in the cash leg settlement in DENOS, if the value of DENOS cash leg settlement executed in TARGET2-Latvija was substantial (if the value of settlement in DENOS was equivalent to one of the five largest participants in TARGET2-Latvija).

In 2015, the value of DVP transfers executed in euro via DENOS amounted only to 0.3% of the total value of payments processed in TARGET2-Latvija, while the daily value of settlement executed by DENOS via TARGET2-Latvija stood at 3.3 million euro on average. Although the concentration ratios remained high in DENOS, the value of DENOS cash leg settlement executed via TARGET2-Latvija was insignificant and thus the materialisation of systemic risk remained overall low.

The ratios for the first quarter of 2016 also pointed to a low probability of the materialisation of system risk since the total value of DVP transfers executed in DENOS in euro and processed in TARGET2-Latvija amounted only to 0.8% of the total value of payments processed.

Financial instruments' settlement

Systemic risk to securities settlement systems may arise if a seller of financial instruments has failed to provide the buyer with financial instruments on the settlement day, whereas the buyer needs these instruments for a further discharge of obligations. The value of settlement fails was analysed upon assessing systemic risk for the financial instruments' settlement in DENOS. Settlement fails represent a significant additional risk, if their value exceeds a particular share of the total value of transfers executed in a securities settlement system. The EU draft framework provides a recommendation for the securities settlement systems to introduce an additional functionality for the monitoring of settlement fails, where the value of settlement fails exceeds 2.5 billion euro per annum and the rate of settlement fails exceeds 0.5% per annum.

In 2015, the value of those financial instruments' transactions in DENOS, where the settlement has failed, amounted to 0.06% (as per transaction volume) and 0.02% (as per transaction value) on the settlement date stipulated as per transaction. The value of settlement fails was minor; hence, the settlement fails were not considered an important source of risk.

The analysis of systemic risk suggested that the materialisation of systemic risk remained low in DENOS in 2015 overall.

The probability of systemic risk remained low in TARGET2-Latvija and DENOS in 2015 overall, since the available liquidity exceeded liquidity required for settlement significantly – less than 15% of liquidity available daily to TARGET2-Latvija participants were used to settle the payments submitted by TARGET2-Latvija participants, while the total value of DVP transfers made in euro and processed in DENOS only amounted

to 0.3% of the total value of payments processed via TARGET2-Latvija. Settlements were not affected by the operational disruption in DENOS. In 2015, the operational disruption in TARGET2-Latvija due to a software error caused only short-term disruptions in the processing of incoming payments. The availability ratio of TARGET2-Latvija and DENOS was 100.0% in the first quarter of 2016. TARGET2-Latvija and DENOS provided efficient and secure payment and settlement environment to the participants and the entire financial system and thus facilitated the financial stability.

APPENDICES

Appendix 1

OTHER SYSTEMICALLY IMPORTANT INSTITUTIONS IN LATVIA

In view of the lessons learnt from the global financial crisis, i.e. that insolvency of systemically important institutions may have a significant negative effect on the economy, special attention is paid worldwide to the identification of systemically important financial institutions both on a global and domestic scale and to the strengthening of their resilience. Based on the framework of systemically important financial institutions, developed by the Basel Committee on Banking Supervisors, the EU has established a CRD IV requirement to identify both global systemically important financial institutions (G-SIIs) and the so-called other systemically important financial institutions (O-SIIs). In 2015, 30 G-SIIs were identified globally, including 13 G-SIIs in the EU and eight G-SIIs in the euro area. Depending on the degree of the global systemic importance, additional Tier 1 capital requirements in the amount of 1.0%–3.5% of RWA are applied to a G-SII. Following the EBA guidelines, O-SIIs have already been identified in EU countries. Establishment of additional requirements to O-SIIs is the competence of EU countries; almost all countries have already established additional capital requirements with or without a transition period. The ECB may, if necessary, stipulate higher capital requirements for the O-SII of the Member States participating in the SSM than those set by the national responsible authorities.

Pursuant to the Credit Institution Law¹ transposing the requirements of CRD IV, beginning with 2016, the FCMC identifies O-SIIs and publishes their list. In the future, the O-SII list shall be reviewed and updated at least annually.

Credit institutions, financial holding companies and mixed financial holding companies may be designated as O-SIIs where material disruptions in their operation may threaten the stability of Latvia's financial system and have negative consequences for the economic development, given their size and importance in the context of the EU or the domestic economy, the scope of their cross-border activities, complexity and interconnectedness with the financial system. O-SIIs are identified in accordance with the methodology developed by the EBA², taking into account the four criteria, their indicators and weights referred to in Table P1. Where the score calculated for a financial institution exceeds 350 basis points, it may be automatically identified as an O-SII; however, the supervisory authorities may also use certain additional indicators and the so-called qualitative information to designate, if necessary, other financial institutions as O-SIIs, and to decrease or raise the threshold of automatic designation as an O-SII by 75 basis points.

To ensure that the methodology is appropriate taking into account specific features of Latvia's financial sector, the FCMC used the option provided in the Guidelines to raise the threshold for automatic identification of O-SIIs from 350 basis points to 425 basis points. Since there is no need to designate any credit institution whose O-SII score does not reach the automatic identification threshold as O-SII in Latvia at this stage, the option to apply additional indicators was not used. According to the O-SII definition in the CRD IV, branches of foreign credit institutions are not designated as O-SIIs; however, they are included in the calculation of the O-SII scores. In December 2015, the FCMC published a decision that the following financial institutions were designated as O-SIIs in Latvia: JSC Swedbank, JSC *SEB banka*, JSC ABLV Bank, JSC *Rietumu Banka*, JSC *Citadele banka*, and JSC *DNB banka*.

¹ Article 3514 of the Credit Institution Law.

² EBA Guidelines (EBA/GL/2014/10) on the criteria to determine the conditions of application of Article 131(3) of Directive 2013/36/EU (CRD) in relation to the assessment of other systemically important institutions (O-SIIs) (see <https://www.eba.europa.eu/documents/10180/930752/EBA-GL-2014-10+%28Guidelines+on+O-SIIs+Assessment%29.pdf>).

Table A1

O-SII IDENTIFICATION CRITERIA AND THEIR WEIGHT IN TOTAL O-SII SCORE

Item No.	Criterion	Indicator	Weights (%)
1.	Size	Total assets	25.00
2.	Importance (including substitutability/financial system infrastructure)	Value of domestic payment transactions	8.33
		Private sector deposits from depositors in the EU	8.33
		Private sector loans to recipients in the EU	8.33
3.	Complexity/cross-border activity	Value of OTC derivatives	8.33
		Cross-jurisdictional liabilities	8.33
		Cross-jurisdictional claims	8.33
4.	Interconnectedness with the financial system	Intra financial system liabilities	8.33
		Intra financial system assets	8.33
		Debt securities outstanding	8.33

On the basis of the degree of the systemic importance of an O-SII, to increase the resilience of the O-SII and to reduce the O-SII's potential negative effect on the financial stability, an O-SII's capital reserve requirement may be applied to O-SIIs, not exceeding 2.0% of their RWA³. The justification of the O-SII's capital reserve requirement (if any) shall be reviewed at least annually. Initially the O-SII's capital reserve requirement is set by the responsible authority of each Member State; under the SSM framework, however, the ECB may set a higher O-SII's capital reserve requirement than the one set by the national responsible authority, should the ECB deem it necessary.

Where a credit institution, identified as an O-SII, is a subsidiary of a G-SII or of a credit institution, registered in another EU country and also designated as an O-SII, the O-SII capital reserve requirement applicable to the above credit institution may not exceed the highest of the following indicators: 1.0% of its RWA or the G-SII or O-SII capital reserve requirement established for the parent company.

Where a systemic risk capital reserve requirement has also been set for the credit institution designated as an O-SII, the O-SII shall comply with the highest of the requirements - the O-SII capital reserve requirement or the systemic risk capital reserve requirement set for it. As an exception, where the systemic risk capital reserve requirement has been set to reduce or prevent the external macroprudential risk and has been applied only to risk exposures to Latvian residents, the O-SII capital reserve requirement and the systemic risk capital reserve requirement shall be applied on a cumulative basis.

The share of the assets of O-SIIs, identified in the euro area countries, in the total credit institution assets accounts for 70%–80% on average (70% in Latvia). Almost all euro area countries have already made a decision regarding the amount of the applicable O-SII capital reserve requirement and the requirement phasing-in periods. The neighbouring countries and the home countries of the parent banks have identified the following O-SIIs and are applying or are planning to apply the following additional capital requirements:

- In Lithuania, four O-SIIs have been identified; beginning with 31 December of 2016 the following O-SII capital reserve requirement will be applied: *AB SEB Bankas* (2.0%), *Swedbank AB* (2.0%), *AB DNB bankas* (2.0%) and *AB Šiaulių bankas* (0.5%).
- In Estonia, two O-SIIs have been identified: *Swedbank AS* and *AS SEB Pank*; an O-SII capital reserve requirement of 2.0% has been set beginning with the third quarter of 2016.
- In Sweden, the four largest banking groups have been designated as O-SIIs: *Nordea*, *Svenska Handelsbanken AB*, *Skandinaviska Enskilda Banken AB* and *Swedbank AB*. As of 1 January 2016, an O-SII capital reserve requirement of 2.0% has been set for them at group level. Since a systemic risk capital reserve requirement of 3.0% had

³ It may be applied on a consolidated, sub-consolidated or individual basis (Article 3515 of the Credit Institution Law).

already been set for them and these requirements are not cumulative, the total capital requirements do not increase on account of the set O-SII capital reserve requirement.

- In Norway, DNB, Nordea Bank Norge and *Kommunalbanken* have been identified as O-SIIs. As of 1 July 2015, an O-SII capital reserve requirement of 1.0% has been applied; as of 1 July 2016, it is 2.0%.

In Latvia, a decision on the O-SII capital reserve requirements is expected to be adopted by the end of 2016. In the fourth quarter of 2015, the capital adequacy ratios of all O-SIIs in Latvia exceeded the effective regulatory requirements by more than two percentage points both on individual and consolidated basis; consequently, they would also be able to comply with the maximum O-SII capital reserve requirement.

Appendix 2

NEW FRAMEWORK FOR RECOVERY AND RESOLUTION OF CREDIT INSTITUTIONS AND INVESTMENT FIRMS

The global financial crisis, which started in 2008, revealed the vulnerability of the financial system and the necessity to make it more resilient against potential turbulences. Support provided by EU countries to the financial sector after the crisis¹ exceeded 1.1 trillion euro, significantly increasing the debt burden of these countries and exerting a lasting impact on their economies. In order to limit taxpayer-funded rescues of banks and minimise costs to the real economy as well as to ensure an effective uniform solution to crisis situations arising in the increasingly integrated financial system of the EU, particularly that of the euro area, the BRRD was adopted in 15 May 2014 establishing uniform principles for supervision of credit institutions and investment firms (hereinafter, the credit institutions) and resolution of financially troubled credit institutions in the EU.

Almost all EU countries have transposed the BRRD provisions in their national legislation. The Parliament of the Republic of Latvia (the Saeima) adopted the Law on the Recovery and Resolution of Credit Institutions and Investment Firms on 18 June 2015² (hereinafter, the Law), thereby introducing the requirements of the BRRD in Latvia and improving the resolution framework. Before the Law taking effect, issues related to the resolution of credit institutions were regulated by the Credit Institution Law and the Law on Bank Takeover. The FCMC already had certain resolution tools, such as creating a bridge bank, separating the so-called bad assets (e.g. splitting up of JSC *Parex banka* by creating JSC *Citadele banka* and JSC *Reverta*) or selling the business. However, previous resolution practices both in Latvia and worldwide were primarily based on the government support, i.e. the states bailed out credit institutions in order to preserve national financial stability. In turn, the improved resolution framework, established by the BRRD, seeks to prevent taxpayer-funded credit institution rescues undermining public finances. The rescues would be primarily financed by the credit institutions' shareholders and subordinated creditors as well as the financial sector itself, with the registered credit institutions making contributions to the SRF.

The SRF funding will be primarily used to provide temporary support to credit institutions under resolution by making loans, providing guarantees and purchasing assets as well as by contributing capital to bridge banks. Except in certain cases, the SRF shall not be used for recapitalisation of credit institutions. The target level of credit institutions' contributions to the SRF of around 55 billion euro is expected to be achieved by 2024.

Under the new resolution framework, emergency financial support from the national budget shall be provided only through additional financial stabilisation tools. The government financial stabilisation tools shall be used as a last resort only after having assessed and exploited the other resolution tools to the maximum extent practicable.

The largest credit institutions of the Member States participating in the SSM are supervised by the ECB and they are resolved by the newly established SRB. The SRB is responsible for the resolution of JSC ABLV Bank, JSC *SEB banka* and JSC Swedbank, credit institutions under the direct supervision of the ECB, as well as JSC *Citadele banka*, a credit institution with cross-border subsidiaries and enterprises. If necessary, the FCMC will provide technical support to the SRB for the resolution of these credit institutions, while the SRB will have powers of decision-making. The FCMC is the resolution authority of other Latvian credit institutions. The FCMC has a set of tools at its disposal to carry out early interventions in a timely manner, should risks of insolvency arise, and tools to ensure the continuity of critical functions of credit institutions under resolution, thus minimising the impact of the credit institution's potential insolvency on the economy and the financial system.

¹ 1 October 2008–1 October 2010.

² Latvijas Vēstnesis. No 127, 5445, 2 July 2015 (see <https://www.vestnesis.lv/ta/id/275045-kreditiestazu-un-ieguldijumu-brokeru-sabiedribu-darbibas-atjaunosanas-un-noregulejuma-likums>).

The new framework establishes a gradual approach to crisis prevention and management. The first stage involves prevention and preparation work. Each credit institution draws up and maintains a recovery plan including measures to improve its financial situation, should it deteriorate³. The recovery plan must include a framework of indicators characterising the credit institution's financial position identifying the points at which actions referred to in the recovery plan should be taken. The FCMC draws up resolution plans for all credit institutions and reviews them annually. Should the credit institution meet the conditions for resolution, the FCMC can take the resolution actions set out in the resolution plan.

The credit institution's recovery constitutes the second stage when a credit institution carries out the measures set out in its recovery plan to restore its financial position if it has deteriorated. This stage also includes the so-called early intervention measures implemented by the FCMC in case a credit institution does not fulfil the regulatory requirements governing the operation of credit institutions⁴ or may not fulfil them in the near future and its financial position deteriorates sharply. The FCMC carries out early interventions using the powers set out in the Law. For instance, it may request the credit institution to prepare a plan for negotiations with creditors on debt restructuring according to the recovery plan. In the stages of recovery and early intervention, the credit institution's shareholders shall remain fully responsible for the credit institution's operation and retain control over it, except where an authorised representative has been appointed by the FCMC.

Should the second stage be unsuccessful or should the credit institution's situation deteriorate rapidly, the third stage – resolution – shall be initiated. When deciding between a credit institution's resolution and liquidation, resolution shall only be initiated if all of the following three criteria are met:

1. the credit institution is failing or is likely to fail;
2. no reasonable prospect of private sector measures;
3. resolution is in the public interest⁵.

Should resolution tools be applied, the FCMC is entitled to call off the board and the council of the credit institution under resolution and designate an authorised representative responsible for taking measures to facilitate the achievement of the resolution objectives, including increasing capital, changing the institution's shareholder structure or facilitating the credit institution's takeover by a financially and organisationally sound institution.

The FCMC is authorised to apply the following resolution tools:

1. sale of business without the approval of shareholders;
2. establishment of a bridge bank: the business or its part is temporarily transferred to an institution controlled by the State;
3. separation of assets (transfer of troubled assets to an asset management institution);
4. bail-in.

A credit institution is recapitalised by writing off or significantly decreasing shareholders' investment and creditors' claims⁶ or by converting them into shares. Write-offs cannot be applied to covered deposits, secured liabilities and short-term interbank liabilities. Under exceptional circumstances, some liabilities may be exempt from writing off or converting in order to curb a systemic contagion.

³ A credit institution reviews its recovery plan at least annually or after a change to the legal or organisational structure of the institution, its business or its financial situation, which could have a material effect on or necessitates a revision of the recovery plan.

⁴ Requirements of the Credit Institution Law, the Financial Instrument Market Law, the regulations of the FCMC or the requirements of the directly applicable EU legislation.

⁵ Resolution is considered to be in the public interest, if required, e.g. to guarantee the continuity of credit institutions' critical functions, avoid a significant adverse effect on the financial market stability or protect the interests of depositors and client funds and client assets.

⁶ The capital is written off in the following order: Common Equity Tier 1 capital, additional Tier 1 capital, Tier 2 capital, subordinated capital not previously enclosed, and, finally, liabilities subject to bail-in, according to the hierarchy established in the insolvency proceedings.

Appendix 3

PERFORMANCE INDICATORS OF CREDIT INSTITUTIONS

Table A3.1

OVERALL PERFORMANCE INDICATORS OF CREDIT INSTITUTIONS

Ratio	2009	2010	2011 ¹	2012 ¹	2013	2014	2015	February 2016
Balance sheet items								
Number of credit institutions and subsidiaries of foreign credit institutions	27	29	30	29	28	26	27	27
Total assets (millions of euro)	30 845.5	31 256.5	29 775.7	28 784.4	29 192.3	30 816.1	31 937.7	31 886.4
Share of loans in total assets (%)	71.2	65.3	62.9	58.0	53.5	47.6	46.0	47.5
Share of deposits in total liabilities (%)	44.1	50.6	52.9	61.7	66.8	72.0	72.8	72.4
Share of liabilities to MFIs in total liabilities (%)	35.9	31.2	24.5	20.5	15.4	11.4	9.2	9.3
Loans to deposits ratio (%)	161.6	129.0	119.0	94.1	80.1	66.1	63.1	65.7
Profitability								
ROE (%) ²	-41.6	-19.7	-11.2	5.6	8.6	11.1	12.5	10.0
ROA (%) ³	-3.5	-1.6	-0.9	0.6	0.9	1.1	1.3	1.2
Cost-to-income ratio (%) ⁴	54.4	72.0	60.3	52.6	50.7	49.7	47.5	51.8
Profit margin (%) ⁵	-132.3	-77.2	-25.1	24.3	31.4	39.3	47.0	46.3
Capital adequacy⁶								
Own funds (millions of euro)	2 917.5	2 739.1	2 713.3	2 723.0	2 769.2	2 990.8	3 118.9	–
CET1/Tier 1 capital (millions of euro) ⁷	2 294.0	2 145.8	2 215.0	2 358.0	2 532.0	2 597.3	2 707.3	–
Risk-weighted assets (millions of euro)	20 042.1	18 709.9	15 595.9	15 465.8	14 618.6	14 346.9	13 910.9	–
Total capital ratio (%)	14.6	14.6	17.4	17.6	18.9	20.9	22.4	–
CET1 ratio/Tier 1 capital ratio (%)	11.4	11.5	14.2	15.2	17.3	18.1	19.5	–
Liquidity								
Liquidity ratio (%) ⁸	62.8	67.9	63.9	59.8	64.4	63.1	66.7	66.4
Liquid assets to total assets ratio (%) ⁹	21.1	27.3	27.4	32.3	36.5	39.9	40.2	39.2
Asset quality								
Ratio of provisions for non-performing loans in the loan portfolio (%)	8.6	11.3	11.5	8.0	6.1	5.3	4.7	4.8
Share of loans past due over 90 days in the loan portfolio (%)	16.4	19.0	17.5	11.1	8.3	6.9	6.0	6.0

¹ The Latvia Branch of the Allied Irish Banks Plc, JSC *Latvijas Krājbanka* and JSC *Parex banka* have been excluded from the profitability, capital adequacy and liquidity ratios for 2011 and 2012.

² Annualised profit/loss ratio to average capital and reserves of the reporting period (excluding data of foreign credit institution subsidiaries).

³ Annualised profit/loss ratio to average assets of the reporting period.

⁴ Cost-to-income ratio = (administrative expenses + 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) × 100.

⁵ Ratio of pre-tax profit to operating income.

⁶ As of 2014, the capital adequacy of credit institutions and the related indicators have been calculated in line with the methodology of the CRR and cannot be directly compared with the indicators of the previous periods.

⁷ CET1 is equivalent to Tier 1 capital for all credit institutions in 2014. As regards 2012 and 2013, data for Tier 1 capital are indicated.

⁸ Liquid assets as stipulated by the FCMC (vault cash; claims on Latvijas Banka 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 credit institutions' total current liabilities with residual maturity under 30 days.

⁹ Liquid assets = vault cash + claims on central banks and other credit institutions + central government fixed income debt securities.

Table A3.2

PERFORMANCE INDICATORS OF GROUP 1 AND GROUP 2 CREDIT INSTITUTIONS

Ratio	Group 1 credit institutions						Group 2 credit institutions					
	2011 ¹⁰	2012 ¹⁰	2013	2014	2015	February 2016	2011 ¹⁰	2012 ¹⁰	2013	2014	2015	February 2016
Balance sheet items												
Number of credit institutions and subsidiaries of foreign credit institutions	15	14	13	10	11	11	15	15	15	16	16	16
Total assets (millions of euro)	21 709.0	19 207.5	18 345.0	17 623.3	17 289.9	17 573.2	8 066.6	9 576.9	10 847.3	13 192.9	14 647.8	14 313.2
Share of loans in total assets (%)	73.7	71.8	68.6	64.9	64.7	63.4	33.8	30.5	28.0	24.5	23.8	24.3
Share of deposits in total liabilities (%)	41.2	50.6	57.3	63.4	65.6	66.3	84.9	83.9	83.0	83.6	81.3	80.3
Share of liabilities to MFIs in total liabilities (%)	33.1	30.2	24.0	19.4	16.0	15.3	1.0	1.1	0.8	0.7	1.0	1.0
Loans to deposits ratio (%)	178.9	141.8	119.7	102.4	98.7	95.5	39.8	36.3	33.8	29.3	29.3	30.3
Profitability												
ROE (%) ¹¹	5.7	4.8	6.8	9.8	9.1	6.7	5.0	7.6	13.1	13.7	19.0	16.0
ROA (%) ¹²	0.5	0.6	0.8	1.1	1.2	1.1	0.4	0.6	1.0	1.1	1.5	1.4
Cost-to-income ratio (%) ¹³	55.0	51.6	50.5	49.7	48.2	51.0	57.7	54.6	51.0	49.7	46.8	52.6
Profit margin (%) ¹⁴	27.3	26.2	29.3	41.8	50.1	46.0	15.7	20.9	34.5	36.5	43.9	46.7
Capital adequacy¹⁵												
Own funds (millions of euro)	2 022.9	1 898.7	1 817.3	1 786.7	1 873.6	–	690.3	824.3	951.9	1 204.1	1 245.3	–
CET1/Tier 1 capital (millions of euro) ¹⁶	1 661.4	1 710.5	1 786.3	1 755.1	1 843.0	–	553.5	647.4	745.7	842.1	864.4	–
Risk-weighted assets (millions of euro)	11 159.5	10 632.7	9 228.5	8 022.7	7 176.8	–	4 436.4	4 833.1	5 390.1	6 324.2	6 734.2	–
Total capital ratio (%)	18.1	17.9	19.7	22.3	26.1	–	15.6	17.1	17.7	19.0	18.5	–
CET1 ratio/Tier 1 capital ratio (%)	14.9	16.1	19.4	21.9	25.7	–	12.5	13.4	13.8	13.3	12.8	–
Liquidity												
Liquidity ratio (%) ¹⁷	56.0	50.6	51.9	46.1	49.1	50.3	73.4	69.8	77.7	78.6	81.8	80.6
Liquid assets to total assets ratio (%) ¹⁸	19.8	22.9	25.6	27.7	28.5	29.7	48.2	51.2	54.8	56.4	54.0	49.2
Asset quality												
Ratio of provisions for non-performing loans in the loan portfolio (%)	12.1	8.0	5.8	4.9	4.2	4.1	8.6	8.1	7.4	6.9	6.3	6.9
Share of loans past due over 90 days in the loan portfolio (%)	18.2	10.8	7.8	6.1	4.8	4.6	13.2	12.7	10.4	9.6	10	10.2

¹⁰ The Latvia Branch of the Allied Irish Banks Plc, JSC *Latvijas Krājbanka* and JSC *Parex banka* have been excluded from the profitability, capital adequacy and liquidity ratios for 2011 and 2012.

¹¹ Annualised profit/loss ratio to average capital and reserves of the reporting period (excluding data of foreign credit institution subsidiaries).

¹² Annualised profit/loss ratio to average assets of the reporting period.

¹³ Cost-to-income ratio = (administrative expenses + 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) × 100.

¹⁴ Ratio of pre-tax profit to operating income.

¹⁵ As of 2014, the capital adequacy of credit institutions and the related indicators have been calculated in line with the methodology of the CRR and cannot be directly compared with the indicators of the previous periods.

¹⁶ CET1 is equivalent to Tier 1 capital for all credit institutions in 2014. As regards 2012 and 2013, data for Tier 1 capital are indicated.

¹⁷ Liquid assets as stipulated by the FCMC (vault cash; claims on Latvijas Banka 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 credit institutions' total current liabilities with residual maturity under 30 days.

¹⁸ Liquid assets = vault cash + claims on central banks and other credit institutions + central government fixed income debt securities.

Appendix 4 FINANCIAL STABILITY RISK ASSESSMENT TOOLS

The risk assessment tools described in the Appendix are additional instruments used in the financial stability assessment process. It is important to take into account the technical limitations of these tools when interpreting results; expert assessment plays an important role in the final risk assessment.

Risk diagram and indices of risk categories

Chart A4.1

FINANCIAL STABILITY RISK DIAGRAM

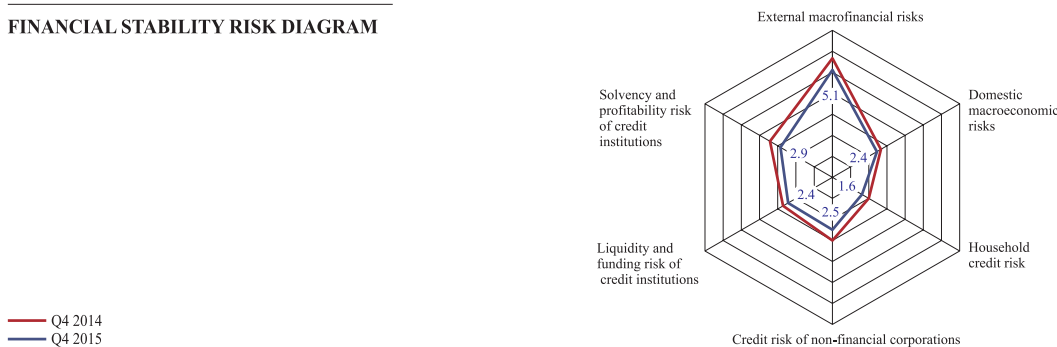
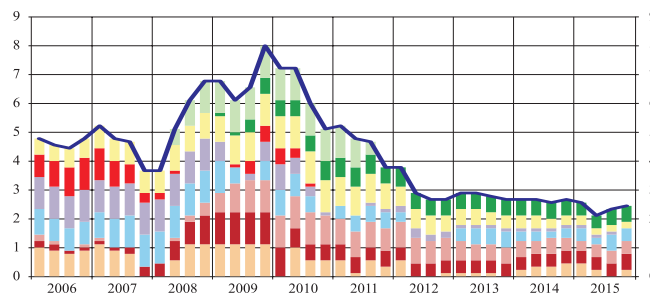


Chart A4.2

ASSESSMENT OF CHANGES IN DOMESTIC MACROECONOMIC RISKS (DYNAMICS OF THE INDEX AND ITS COMPONENTS)

- Government debt changes (percentage points)
- Government debt (% of GDP)
- Domestic loans (% of GDP)
- Credit-to-GDP gap (percentage points)
- Current account balance (% of GDP; percentage points)
- CPI (percentage points)
- Unemployment rate (%)
- Latvia ESI (points)(-1)*
- Real GDP (annual changes; percentage points)
- Domestic macroeconomic risk index

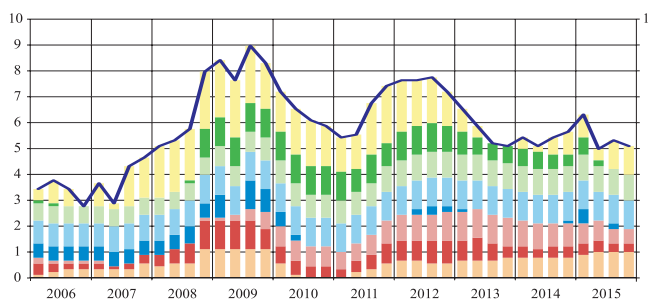


* (-1) represents indicators that have an inverse relationship with the risk.

Chart A4.3

ASSESSMENT OF CHANGES IN EXTERNAL MACROFINANCIAL RISKS (DYNAMICS OF THE INDEX AND ITS COMPONENTS)

- Composite indicator of systemic stress (points)
- Government debt to the EU (annual changes; % of GDP)
- Government debt to the EU (% of GDP)
- Private debt (% of GDP)
- Private debt (annual changes; % of GDP)
- Unemployment rate in the EU (%)
- EU ESI (points) (-1)*
- Imports in the main trade partners (annual changes; %)(-1)*
- External macrofinancial risk index

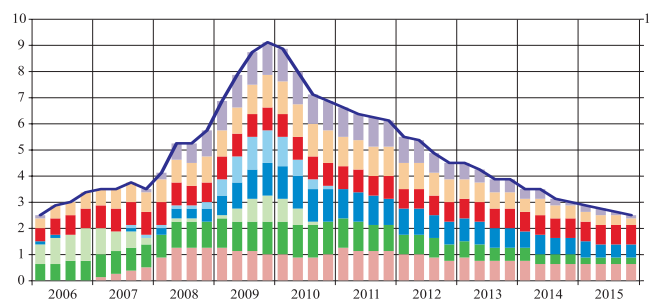


* (-1) represents indicators that have an inverse relationship with the risk.

Chart A4.4

ASSESSMENT OF CHANGES IN CREDIT RISK OF NON-FINANCIAL CORPORATIONS (DYNAMICS OF THE INDEX AND ITS COMPONENTS)

- Interest coverage (%) (-1)*
- Debt-to-equity ratio of non-financial corporations (%)
- The Herfindahl-Hirschman Index
- Share of loans past due over 90 days (annual changes; percentage points)
- Share of loans past due over 90 days (%)
- Credit-to-GDP gap (loans to non-financial corporations; percentage points)
- Loans to non-financial corporations (% of GDP)
- Profitability of non-financial corporations (%) (-1)*
- Non-financial corporation credit risk index

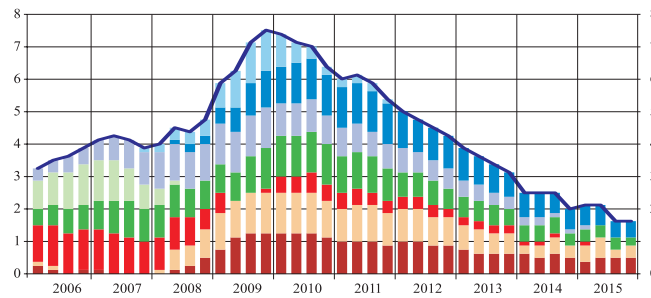


* (-1) represents indicators that have an inverse relationship with the risk.

Chart P4.5

ASSESSMENT OF CHANGES IN HOUSEHOLD CREDIT RISK (DYNAMICS OF THE INDEX AND ITS COMPONENTS)

- Share of loans past due over 90 days (annual changes; percentage points)
- Share of loans past due over 90 days (%)
- Ratio of interest payments to disposable income (%)
- Household debt-to-disposable income gap (percentage points)
- Ratio of household debt to disposable income (%)
- Housing affordability ratio (%)
- Real net wage (annual changes; %) (-1)*
- Unemployment rate (%)
- Household credit risk index

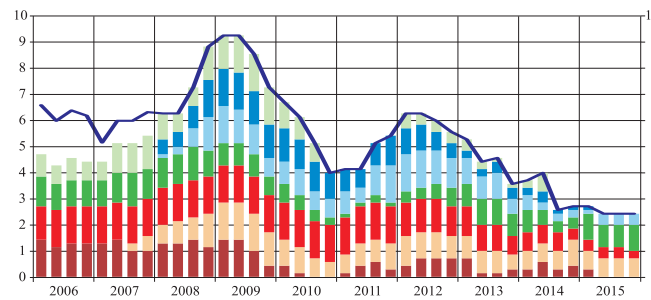


* (-1) represents indicators that have an inverse relationship with the risk.

Chart A4.6

ASSESSMENT OF CHANGES IN LIQUIDITY AND FUNDING RISK OF CREDIT INSTITUTIONS (DYNAMICS OF THE INDEX AND ITS COMPONENTS)

- Spread between the 3-month RIGIBOR and EURIBOR (percentage points; until 2014)/historical volatility of the interest rate on overnight loans in euro (%; as of 2014)
- 5-year CDS premium of Latvia (basis points)
- 5-year CDS premium of Swedish and Norwegian parent banks (basis points)
- Stable funding indicator of resident assets (%)
- Resident loan-to-deposit ratio (%)
- Resident deposits (annual changes; %) (-1)*
- FCMC liquidity ratio (%) (-1)*
- Liquidity and funding risk index of credit institutions

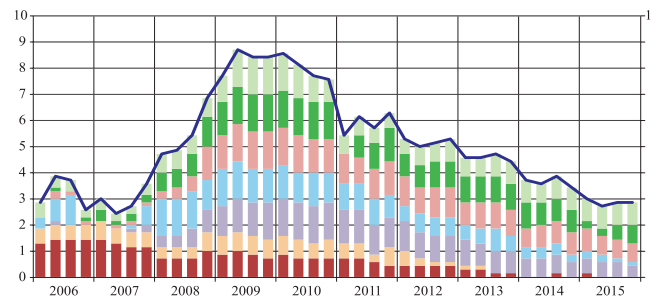


* (-1) represents indicators that have an inverse relationship with the risk.

Chart A4.7

ASSESSMENT OF CHANGES IN SOLVENCY AND PROFITABILITY RISK OF CREDIT INSTITUTIONS (DYNAMICS OF THE INDEX AND ITS COMPONENTS)

- Spread of the overall interest rates on outstanding amounts (percentage points) (-1)*
- Ratio of net provision expenditure to operating income (%)
- ROE (%) (-1)*
- Provisioning ratio (%) (-1)*
- Ratio of net loans past due over 90 days to capital (%)
- Ratio of capital and reserves to assets (%) (-1)*
- Common Equity Tier 1 ratio (%) (-1)*
- Solvency and profitability risk index of credit institutions



* (-1) represents indicators that have an inverse relationship with the risk.

Results of the credit institution survey on risks¹

Table A4.1

ASSESSMENT OF POTENTIAL RISKS BY CREDIT INSTITUTIONS IN JANUARY 2016

(the results of the risk survey conducted in July 2015 are provided in brackets)

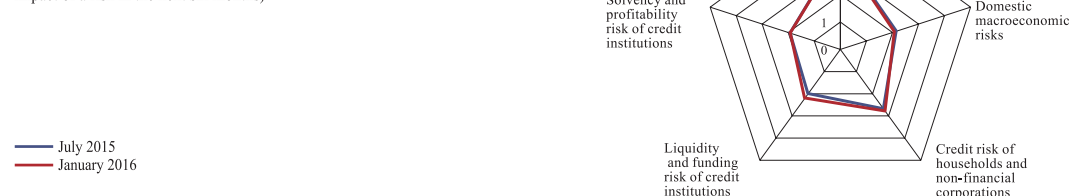
Risks by their importance (expected likelihood multiplied by the potential effect)	Expected likelihood	Potential impact
1 Low interest rate environment.	4.0 (4.1)	3.3 (3.1)
2 Deteriorating external macrofinancial environment and persistently high uncertainty which might have a negative impact on Latvia's economic development.	3.4 (3.4)	3.8 (3.5)
3 Adverse impact of the deterioration of the economic and political situation in Russia on Latvia's economy and credit institutions.	3.7 (3.8)	3.1 (3.4)
4 Prolonged weak new lending risk.	3.2 (3.6)	3.1 (3.0)
5 Deterioration of non-financial corporation creditworthiness.	2.8 (2.9)	3.6 (3.6)
6 Deterioration of household creditworthiness.	2.3 (2.4)	3.8 (3.3)
7 Impact of an unstable legal environment on Latvia's economy and financial system.	2.8 (2.5)	3.1 (3.0)
8 Impact of shortcomings of the legal framework on Latvia's economy and financial system.	2.8 (2.8)	3.0 (3.2)
9 Deterioration of Latvia's economic situation due to domestic factors.	2.2 (2.2)	3.6 (3.2)
10 Worsening of financial conditions for Latvian credit institutions.	2.3 (1.9)	3.0 (2.6)
11 Rapid changes in real estate prices.	1.9 (2.2)	3.1 (3.2)

[0.0–0.5) very low	[0.5–1.5) low	[1.5–2.5) below medium	[2.5–3.5) medium	[3.5–4.5) above medium	[4.5–5] high
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Chart A4.8

ASSESSMENT OF RISK CATEGORIES BY CREDIT INSTITUTIONS IN TERMS OF RISK LEVEL

(considering the expected likelihood and the potential impact of a risk in the next six months)

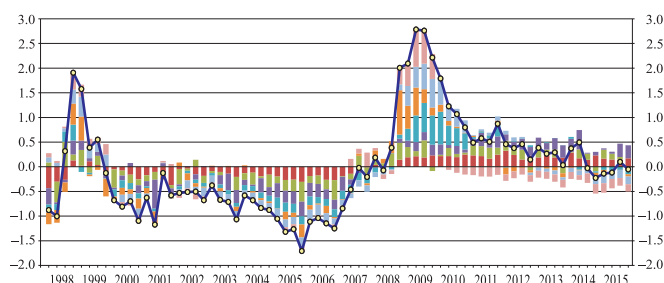


Scale 1–5 where 1 denotes a low risk level, 2 – a risk level below medium, 3 – a medium risk level, 4 – a risk level above medium, 5 – a high risk level.

Chart A4.9

LATVIAN FINANCIAL STRESS INDEX

- Spread between the 3-month RIGIBOR and EURIBOR (percentage points; until 2014)/historical volatility of the interest rate on overnight loans in euro (%; as of 2014)
- Spread of the yield on government bonds (percentage points)
- Ratio of loan loss provisions to resident loans (quarterly changes; %)
- ROA (%)
- Interbank deposits (quarterly changes; %)
- Resident deposits (quarterly changes; %)
- Loans to residents (quarterly changes; %)
- Financial stress index



¹ In January 2016, Latvijas Banka conducted its regular survey of credit institutions in relation to their assessment of risks to Latvia's financial system. 12 credit institutions were surveyed.