LATVIJAS BANKA
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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.

Systemic risk: the risk that the inability of one participant to meet its obligations will cause other participants to be unable to meet their obligations when they become due, potentially with spillover effects threatening the stability of or confidence in the financial system, economic growth and welfare.

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 March 2019, economic data available up to the end of March 2019 or at the moment of compiling the current report, and credit institution, NBFS and financial infrastructure data available up to the end of March 2019 (data on credit institution profitability were updated at the end of May 2019). Forecasts are also based on the most recent available data.

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; nor have they been used for liquidity and credit risk sensitivity and stress tests.

Curly brackets enclose data for the respective period of the previous year.

Charts and tables have been compiled on the basis of the following data sources: Chart 1.1 – Bloomberg, Chart 1.2 – the IMF, Charts 1.3 and 1.4 – Bloomberg, Charts 1.5 and 1.6 – the CSB, Chart 1.7 – the EC, Chart 1.8 – the CSB and Latvijas Banka, Chart 1.9 – the ECB and Eurostat, Chart 1.10 and 1.11 – the CSB, Chart 1.12 – the CSB, SIA LATIO, SIA Ober Haus Real Estate Latvia and SIA ARCO REAL ESTATE, Chart 1.13 – State Unified Computerized Land Register, Chart 1.14 – the CSB, Chart 1.15 – Latvijas Banka, Chart 1.16 – estimates by Latvijas Banka based on data of Latvijas Banka and the CSB, Chart 1.17 – the CSB and Latvijas Banka, Chart 1.18 – Latvijas Banka and the ECB, Charts 1.19 and 1.20 – estimates by Latvijas Banka based on data of Latvijas Banka, Charts 1.21–1.24 – the ECB, Charts 2.1 and 2.2 – Latvijas Banka, Charts 2.3 and 2.4 – the FCMC, Charts 2.5 and 2.6 – Latvijas Banka, Chart 2.7 – estimates by Latvijas Banka based on data of Latvijas Banka, Chart 2.8 – the FCMC, Charts 2.9–2.11 – estimates by Latvijas Banka based on data provided by Latvijas Banka and the FCMC, Charts 2.12–2.14 – the FCMC, Chart 2.15 – Latvijas Banka and the FCMC, Chart 2.16 – Latvijas Banka, Chart 2.17 – estimates by Latvijas Banka based on data of the FCMC and Latvijas Banka, Chart 2.18 – estimates by Latvijas Banka based on data of the FCMC, Chart 2.19 – the FCMC, Chart 2.20 – the ECB, Charts 2.21–2.23 – the FCMC, Table 2.1 – estimates by Latvijas Banka, Table 2.2 – Reuters and estimates by Latvijas Banka, Table 2.3 – estimates by Latvijas Banka, Charts 3.1 and 3.2 – the FCMC, Latvijas Banka and the CSB, Chart 3.3 – the FCMC, Charts 4.1–4.4 – Latvijas Banka, Appendix 1 – the FCMC, Appendices 2 and 3 – estimates by Latvijas Banka.

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ABBREVIATIONS

AML/CTF – anti-money laundering and counterterrorist financing
AS – joint stock company
CIS – Commonwealth of Independent States
CIT – corporate income tax
CSB – Central Statistical Bureau of Latvia
DGF – Deposit Guarantee Fund of Latvia
EC – European Commission
ECB – European Central Bank
EKS – Electronic Clearing System of Latvijas Banka
ESMA – European Securities and Markets Authority
EU – European Union
EURIBOR – euro interbank offered rate
FATF – Financial Action task force
FCMC – Financial and Capital Market Commission
FMIP – Financial Market Infrastructure Principles
GDP – Gross Domestic Product
IMF – International Monetary Fund
LCR – liquidity coverage ratio
LGD – loss given default
Ltd. – limited liability company
LTV – loan-to-value
MFI – monetary financial institution
NBFS – non-bank financial sector
MREL – minimum requirement for own funds and eligible liabilities
NPL – non-performing loan
NSFR – net stable funding ratio
O-SII – other systemically important institution
PD – probability of default
PFMI – Principles for Financial Market Infrastructures
PIT – personal income tax
ROA – return on assets
ROE – return on equity
SREP – supervisory review and evaluation process
RWA – risk-weighted assets
TARGET2 – the second generation of TARGET (Trans-European Automated Real-time Gross settlement Express Transfer system)
TIBER-EU – European framework for threat intelligence-based ethical red-teaming
UK – United Kingdom
US – United States of America

EXECUTIVE SUMMARY

Latvia's financial sector has seen important structural changes. Both in Latvia and abroad, the money laundering and terrorist financing risk tolerance has declined and implementation of AML/CTF measures has been reinforced to prevent materialisation of the above risks. Those Latvian credit institutions, whose business historically has mostly focused on servicing foreign customers (including high-risk customers), have to change and adjust to the new circumstances. As a result of the changes, assets of these credit institutions have shrank considerably. Since the end of 2015, the aggregate value of customer payments has decreased more than eight times in these credit institutions; deposits of foreign customers have dropped by 71.5%, and the share of deposits made by non-EU customers in the total credit institution deposits has narrowed to 8.5%. The FCMC has reviewed the business model plans submitted by the above credit institutions. According to them, part of the credit institutions intend to engage in the domestic credit market or in fintech area. It is difficult yet to tell how fast and sustainable the re-focusing of their business will turn out to be.

The process of money laundering and terrorist financing risk mitigation is ongoing. Credit institutions continue to enhance their risk monitoring systems and review their customer bases. A prohibition to provide services to shell companies and conduct real estate transactions in cash was introduced along with other restrictions. The government proceeds with implementing reforms, inter alia improving access to information on beneficial owners, further elaborating the regulatory framework for ensuring compliance with the national and international sanctions and institutionally strengthening the financial sector supervisors' capacity to combat financial crime. At the same time it is clear that **AML/CFT measures require closer cross-border cooperation and more harmonised and centralised cooperation at EU level**, given the cross-border implications of the money laundering and terrorist financing risks.

In view of the money laundering and terrorist financing risks, attention was paid to some Nordic banking groups where stock prices fell significantly in relation to alleged deficiencies in the field of AML/CFT. At the same time, considerable changes in the credit risk ratios of these credit institutions have not been registered in the financial markets. A potential abrupt repricing of the risk premia of Nordic banks and materialisation of macrofinancial vulnerability risks is likely to affect the parent bank financial performance indicators, economic growth in the Nordic and Baltic region as well as lending growth in Latvia.

Considerable deterioration of the external macrofinancial environment still remains one of the main systemic risks to Latvia's financial stability. The uncertainty associated with several evolving geopolitical factors, inter alia the Brexit outcome, trade conflicts, decelerating growth in emerging economies, as well as concern regarding an abrupt repricing of risk premia increase the external macrofinancial environment risks. According to forecasts, economic growth slowdown is projected in the euro area, raising concern with respect to the profitability of euro area banks and government debt sustainability in some countries.

In view of a weaker foreign demand, GDP growth is going to slow down[1]. **Nevertheless, the domestic economic growth is quite robust.** Despite the significant structural changes in the credit institution sector, GDP grew by 5.0% in 2018. Macroeconomic indicators suggest that the economic growth is balanced overall. Labour market is an exception: shortage of adequately skilled labour serves as an upward pressure on wages, expands the productivity-wage dynamics gap and dampens more accelerated growth potential. The rapid wage rise has not impaired the financial position of non-financial corporations yet: their turnover and financial performance indicators are improving. Household financial soundness is also on an upward trend. Consequently, the credit risk of domestic borrowers continues to decline.

[1] According to the forecasts of Latvijas Banka, GDP will increase by 2.9% in 2019.

However, **domestic lending remains sluggish and the cyclical risks to financial stability are low.** The lending policies pursued by credit institutions remain cautious, and they assess their cooperation with potentially riskier customers more critically. Meanwhile, the role of non-bank lenders[2] in financing the economy continues to increase. Several credit institutions, not actively operating in the domestic credit market before, have plans to engage in lending in the context of changing their business models. On the one hand, it may somewhat improve availability of loans to economic agents, but on the other hand, the previous limited business experience of these credit institutions in domestic lending and possibilities of attracting eligible funding should be taken into account.

The major lenders still mostly rely on domestic deposits as the main source of funding, and these deposits continue their robust growth. Meanwhile, the business volumes and deposits of credit institutions that had serviced primarily foreign customers so far shrank notably. Part of the above credit institutions have started to collect household deposits via web platforms to attract funding and offer new financial products. This enables credit institutions to mobilise more stable medium-term funding; however, these deposits are more exposed to the outflow risk after the deposit maturity date. Therefore, further changes in the financing and asset structure of these credit institutions have to be monitored, assessing the related risks.

Credit institution liquidity risk remains limited as credit institutions overall maintain a considerable amount of liquid assets which is more than sufficient to ensure the compliance with the LCR and the individual increased additional FCMC liquidity ratio requirements set by the FCMC within the SREP. It should be noted though that, after the minimum requirement for the FCMC liquidity ratio, binding on all credit institutions, was lifted at the beginning of 2018, part of the largest credit institutions have reduced the amount of their liquid assets, and their dependence on parent banks in liquidity management has increased.

The profits earned by the major credit institutions are stable and their profitability indicators are good. At the same time, for several credit institutions where a change in their business models is under way, the uncertainty surrounding their future profit generation options and the profitability risk have increased.

The overall capitalisation level of credit institutions is high. The largest credit institutions are well-capitalised and continue further strengthening their capital by partially investing their profits in it. Also, capital indicators have increased notably in part of credit institutions historically focused mostly on foreign customers; however, this improvement has resulted from a fall in RWA rather than from capital growth. With profitability prospects deteriorating, some credit institutions face higher risk of decreasing capitalisation. The results of the stress test analysis 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 is quite high. However, the capacity of some smaller credit institutions to absorb potential shocks is insufficient.

Macroprudential policy changes are related to the review of O-SII capital buffer requirements. Considering the changes in the composition[3], status[4] and size of market participants, the FCMC has reviewed the set O-SII capital buffers. Currently, four O-SIIs are identified in Latvia[5]. **Preparations for introducing limits on the debt-service-to-income and debt-to-income ratios and loan maturity are under way.** The low level of household debt and the cautious lending policy implemented by the major lenders notwithstanding, the record low interest rates and weak financial resilience of households during the previous financial turbulences

[2] The bulk of the loan portfolio of non-bank lenders consists of loans granted mostly by subsidiaries of credit institutions operating in Latvia.

[3] The banking licence of ABLV Bank, AS was cancelled in July 2018.

[4] In January 2019, Luminor Bank AS in Latvia became a branch of the Luminor Bank AS (Estonia). The O-SII capital reserve requirement for the Estonian Luminor Bank AS (2% of RWA), set at the group level, also applies to its Latvian branch.

[5] Swedbank AS, AS SEB banka, AS Citadele banka and AS Rietumu Banka, with their O-SII capital reserve requirements set at 2.00%, 1.75%, 1.50% and 1.25% of RWA respectively.

should be kept in mind. The above limits should be viewed as structural measures supporting good lending practices throughout the business cycle.

According to Latvijas Banka, in 2018 Latvia's **financial market infrastructure operated securely and efficiently and the risks related to its operation were adequately managed and contained** so that their impact on the operation of payment and settlement systems and their participants would be minimal and would trigger no systemic disruptions.

1. MACROFINANCIAL ENVIRONMENT AND LENDING DEVELOPMENT

External macrofinancial environment

Financial stability risks stemming from the external macrofinancial environment have increased on account of larger than expected deceleration of global growth, rising geopolitical risks and uncertainties as well as an increase in financial market volatility (see Chart 1.1). According to the IMF estimates[6], global growth softened to 3.6% in 2018 and is projected to moderate further to 3.3% in 2019 (see Chart 1.2), slumping to the lowest level since the global financial crisis of 2009. Several factors, including the escalation of trade tensions and geopolitical risks, slowdown of growth in China, deepening macrofinancial imbalances in Turkey and Argentina and growing tensions also in other emerging economies, tightening of financial conditions and one-off factors in major economies contributed to the weakening of the economic activity.

The effect of political developments in the euro area, rising protectionism, decelerating growth of emerging economies as well as several one-off factors on the euro area's economic growth was stronger than previously expected. Economic sentiment indicators continue to decrease. Euro area GDP growth projections were revised downwards notably[7]. One of the risk factors that could weigh on the euro area's economic activity, affect the situation in the financial markets and thus also the financial stability is the uncertainty around the UK's exit from the EU (see Box 1). Weakening economic growth in the region and political instability in Italy have unearthed concerns about government debt sustainability in some euro area countries and about the impact of the debt on the financial sector. At the same time, the monetary policy and financial conditions remain accommodative and favourable labour market conditions continue to support economic growth.

[6] See IMF World Economic Outlook of April 2019.

[7] According to March 2019 ECB staff macroeconomic projections for the euro area, the euro area's GDP growth is projected to increase by 1.1% in 2019 and 1.6% in 2020 (1.7% and 1.7% in December 2018 projections), whereas the euro area foreign demand is expected to expand by 2.2% and 3.3% respectively (by 3.1% and 3.5% in December 2018 projections).

Chart 1.1
ECONOMIC POLICY UNCERTAINTY, GEOPOLITICAL RISK AND US STOCK MARKET VOLATILITY INDICES
(points)

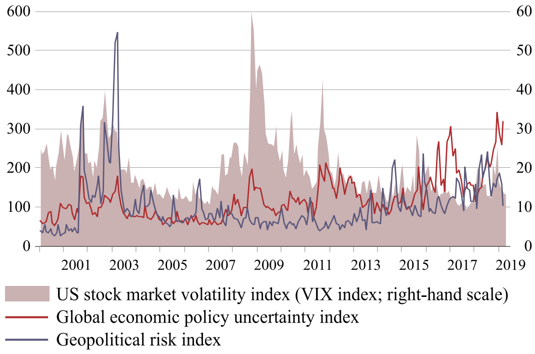
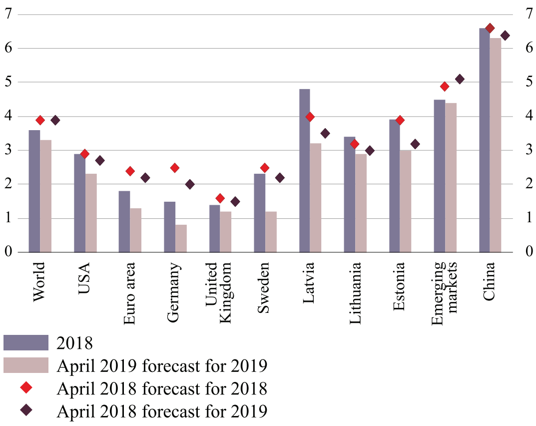


Chart 1.2
ANNUAL REAL GDP CHANGES AND IMF FORECASTS
(%)



Overall, European bank resilience to shocks has improved. Nevertheless, a weakening economic outlook poses profitability challenges for European banks. Although the economic growth supported an improvement in the financial indicators of banks over the recent years, the profitability of many European banks has remained weak. With the economy decelerating, banks will find any further improvement of their profitability even more challenging. Although the repricing of risk premia has so far been gradual, the financing costs of European banks as well as stock market volatility have grown since the beginning of 2018 (see Chart 1.3). Persistence of the risk appetite and the possibility of an abrupt repricing of risk premia that would increase the vulnerability of the banking sector remains a source of concern. Several countries are increasingly exposed to risks associated with strong growth of lending, high private sector indebtedness and/or overvaluation in the real estate market. Growing risks in emerging economies have had a limited effect on the euro area banks, as their exposure to emerging markets is relatively small overall, with only some euro area countries and banks having significant exposures.

Over the autumn months of 2018 and at the beginning of 2019, the stock prices of some Nordic banking groups also fell significantly (see Chart 1.4) in relation to alleged deficiencies in the field of AML/CFT. At the same time, the market perception of the credit risk associated with those banks and the bond yields remained broadly unchanged, which is important considering the dependence of the Nordic banking groups on market financing. An abrupt repricing of the risk premia of Nordic banks is a potential risk also for Latvia's financial stability.

Risks associated with an imbalanced real estate market development and high level of household indebtedness in the Nordic countries remain. Household debt in Sweden and Norway continues to grow. Following the correction in 2017, Swedish housing prices have stabilised, yet the housing market remains imbalanced.

Chart 1.3
STOCK PRICE INDICES
(01.01.2018 = 100)

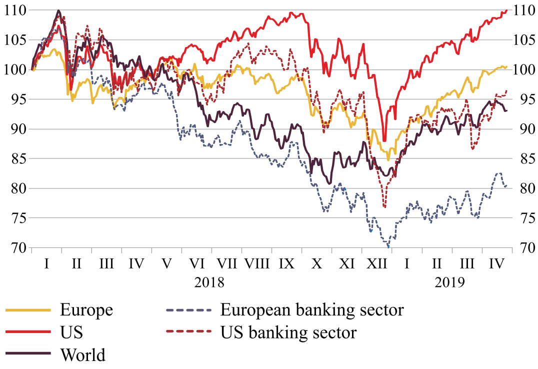
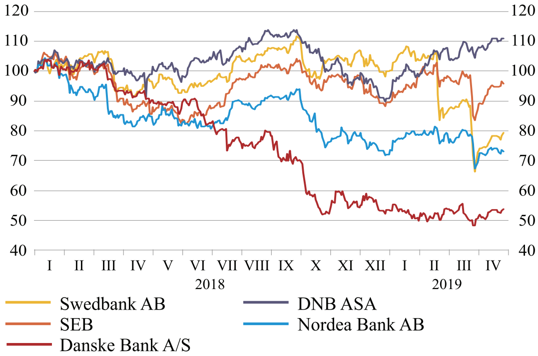


Chart 1.4
STOCK PRICES OF NORDIC BANKS
(01.01.2018 = 100)



Adequate macroprudential and economic policy measures for risk mitigation as well as cross-border cooperation are important in the context of the financial stability of the Nordic and Baltic region. A Nordic-Baltic financial crisis simulation exercise took place in January 2019 with the participation of representatives from central banks, supervisory authorities, resolution authorities and finance ministries as well as the EC and the Single Resolution Board. The exercise was successful and helped to identify the issues to be addressed in order to improve cross-border cooperation in case of providing liquidity assistance and resolution.

BOX 1. POTENTIAL CONSEQUENCES OF A NO-DEAL BREXIT FOR LATVIA'S FINANCIAL SECTOR

Considerable uncertainty is still surrounding the UK's departure from the EU[8] that could have consequences for Latvia's financial sector as well. While no agreement has been reached on the terms of the UK's withdrawal from the EU, it is important to identify the most significant risks associated with a no-deal Brexit and its effects on the operation of financial institutions in Latvia as well as the ways of mitigating those risks.

First of all, a no-deal Brexit will mean that the EU credit institutions will lose the right to provide financial

[8] The European Council agreed to extend the deadline for the UK's exit from the EU until 31 October 2019 and until that date the UK remains a full EU member state.

services in the UK without obtaining a banking licence or establishing a branch (passporting) and vice versa, the UK credit institutions will no longer be allowed to provide their services to the EU customers directly from the UK establishments. In order to limit operational disruptions should such a scenario materialise, major UK credit institutions previously providing services to customers in the EU via their UK establishments have adjusted their operations and either established new subsidiaries in the EU (receiving a new banking licence) or reorganised the existing subsidiaries and/or branches in the EU. The EU credit institutions providing financial services in the UK have taken the same steps in the UK. Latvia's credit institutions are not directly affected by this process, **as they are not active in the UK's market and have no significant investment in the UK**. As at the end of the first quarter of 2019, the above investment amounted to merely 0.6% of credit institution assets. Only for some systemically insignificant credit institutions the ratio of their investment in the UK to their capital is considerable. Credit institution liabilities to the UK (mostly non-bank deposits) are also small, only 1.6% of the total liabilities of credit institutions at the end of the first quarter of 2019. **Considering that the credit institution sector has limited relationship with the UK, a no-deal Brexit poses no direct systemic risks to Latvia's financial sector.**

Second, a no-deal Brexit means that the EU financial institutions will no longer have access to central counterparties (CCPs) in the UK for the purposes of clearing. Up to now, a significant part of the standardised derivatives contracts of the EU financial institutions were cleared using the services of CCPs established in the UK (about 90% of the EU's interest rate swaps in euro were previously cleared via the CCPs in the UK[9]). In order to mitigate the risks to such transactions caused by a no-deal Brexit, on 18 February 2019 ESMA announced that three CCPs established in the UK will be recognised to provide services in the EU in the event of a no-deal Brexit[10]. **There would be no direct consequences for Latvia's credit institutions in this context, as their volume of transactions in financial derivatives is insignificant.** As at the end of 2018, the exposure to UK related financial derivatives[11] in credit institutions did not exceed 0.1% of own funds. Latvia's largest credit institutions, however, could see some indirect effects at group level, as Swedish credit institutions have been quite active users of UK CCP services[12].

Third, a no-deal Brexit would make it more difficult for EU credit institutions to comply with MREL[13]. Financial instruments issued under UK law will no longer be eligible in the context of MREL if the UK does not recognise the powers of the EU resolution authorities with regard to those instruments. Nevertheless, this risk is also limited, as the contracts of most MREL-eligible financial instruments issued since 2016 already contain clauses concerning the powers of resolution authorities in the event of a resolution. Moreover, the Single Resolution Board which is the resolution authority for the euro area's largest banks has publicly announced[14], that it will treat Brexit-induced shortfalls on a case-by-case basis, applying transition periods. **At the moment, compliance with MREL involves no systemic risk to Latvia's credit institutions, as the biggest institutions** either meet the MREL requirements at group level or have time till April 2022 to accumulate the required amount of eligible liabilities.

[9] European CCPs after Brexit: speech by Benoît Cœuré, Member of the Executive Board of the ECB, at the Global Financial Markets Association, Frankfurt am Main, 20 June 2017 *(https://www.ecb.europa.eu/press/key/date/2017/html/ecb.sp170620.en.html)*.

[10] ESMA press release of 18 February 2019: ESMA to recognise three UK CCPs in the event of a no-deal Brexit *(https://www.esma.europa.eu/sites/default/files/library/esma71-99-1114_esma_to_recognise_three_uk_ccps_in_the_event_of_a_no-deal_brexit.pdf)*.

[11] FCMC publication "Consolidated financial and performance indicators for banks" reports the net position of derivatives at fair value rather than notional principal.

[12] *Finansinspektionen*. "Consequences of Brexit for the Swedish Financial Market", 21 June 2018. *(https://www.fi.se/en/published/reports/reports/2018/brexit-consequenses-for-the-swedish-financial-market/)*.

[13] "Minimum Requirement for own funds and Eligible Liabilities (MREL)" *(https://srb.europa.eu/en/content/mrel)*.

[14] "SRB Publishes Second Part of 2018 MREL Policy" *(https://srb.europa.eu/en/node/708)*.

On balance, the risks associated with a no-deal Brexit faced by Latvia's financial institutions are considered manageable. A no-deal Brexit could also result in some unexpected complications and heightened financial market volatility, yet this is unlikely to have significant financial stability implications in Latvia. The negative effect on Latvia's economy would also be moderate. According to Latvijas Banka estimates, over a period of three years, Latvia's GDP could contract by 0.8% under the adverse scenario and by 1.7% under the extremely adverse scenario in cumulative terms[15].

[15] *https://www.bank.lv/images/stories/pielikumi/publikacijas/makroekonomikasnorises/MNP_2016_decembris_en.pdf.*

Domestic macrofinancial environment

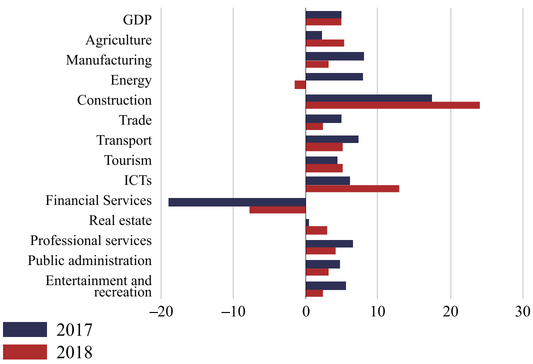
The domestic macrofinancial environment has remained overall favourable, and the cyclical risks to financial stability are low. Latvia's economy has benefited from a protracted cyclical upswing, without a build-up of excessive macroeconomic imbalances. Inflation is moderate, the current account deficit is small and unemployment is close to its natural rate. At the same time, labour shortages have increased; however, the resulting upward pressure on labour costs has not impaired the financial position of non-financial corporations yet. Domestic lending remains sluggish, and the level of household and non-financial corporation indebtedness is one of the lowest in the EU. Real estate prices have increased quite considerably, yet this is not because a significant revival of the real estate market activity or strong lending. Availability of housing also has not deteriorated. Moreover, in September 2018 the international credit rating agency S&P Global upgraded Latvia's credit rating by one notch[16].

In 2018, GDP growth of 5.0% was stronger than projected[17], but moderated to 3.2% in the first quarter of 2019. All sectors reported growth in 2018 (see Chart 1.5), particularly construction benefiting from both EU funding inflows as well as an increase in private investment. The only exception is the finance sector whose value added continues to shrink on account of the significant reduction of business in part of credit institutions. Significant structural changes in the finance sector has had little effect on economic sentiment indicators and overall growth in Latvia.

[16] The rating for long-term foreign and local currency sovereign debt was raised from "A–" to "A", whereas that for the respective short-term debt from "A–2" to "A–1". The outlook for both ratings is stable.

[17] According to seasonally and calendar adjusted data.

Chart 1.5
ANNUAL CHANGES IN VALUE ADDED BY TYPE OF ECONOMIC ACTIVITY
(seasonally adjusted data; %)



Looking at GDP by expenditure, the contribution of investment has increased. This was underpinned by both growing investment in machinery and equipment and buoyant construction development. The ongoing and newly-announced private and public sector investment projects suggest that investment activity will be considerable in 2019 as well. The growth of private consumption remains solid, supported by the rising wages.

In the circumstances of weakening foreign demand, both exports of goods and of services have weakened (see Chart 1.6). Latvia's foreign demand forecasts have been revised downwards because of the deteriorating growth rates and import forecasts of its main trade partners.

Economic growth will moderate in 2019 primarily on account of external factors. According to Latvijas Banka forecast, real GDP will increase by 2.9% in 2019. Although Latvia's business and consumer confidence indicators remain stable and quite optimistic (see Chart 1.7), the decelerating growth in external markets could gradually dampen confidence and increase caution. Some further growth-limiting supply side factors, like insufficient investment and the resulting high degree of capacity utilisation in individual sectors as well as labour shortages supporting the widening of the wage-productivity gap, remain a source of concern.

In the context of the domestic macrofinancial environment, **risks are associated with an insufficient progress in implementation of MONEYVAL (Committee of Experts on the Evaluation of Anti-Money Laundering Measures and the Financing of Terrorism) recommendations** that could put Latvia on FATF Gray list[18]. Although the spectrum of potential consequences is wide and uncertain, there would surely be repercussions in the finance sector, government budget and the economy overall (for example, credit rating downgrades and thus higher borrowing costs for the government, financial institutions and businesses, delays in executing international payments that would also affect export and import operations, deterioration of investment environment and much slower economic growth). Money laundering and terrorist financing risk mitigation process is ongoing and many important measures have already been implemented (for example, a prohibition to provide services to high-risk shell companies and conduct real estate transactions in cash). Credit institutions are also enhancing their risk monitoring systems and reviewing their customer base. Measures to improve access to information on beneficial owners, further elaborate the regulatory framework for ensuring compliance with the national and international sanctions and institutionally strengthen the financial sector supervisors' capacity to combat financial crime are implemented.

Chart 1.6
ANNUAL CHANGES IN REAL EXPORTS
(%)

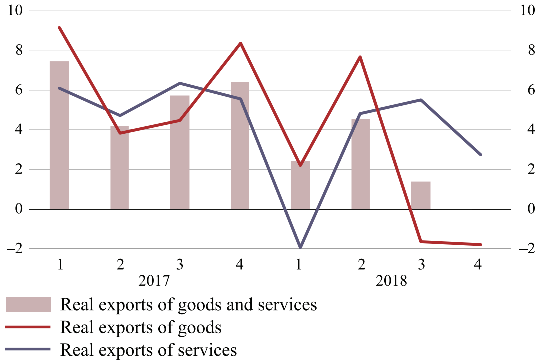
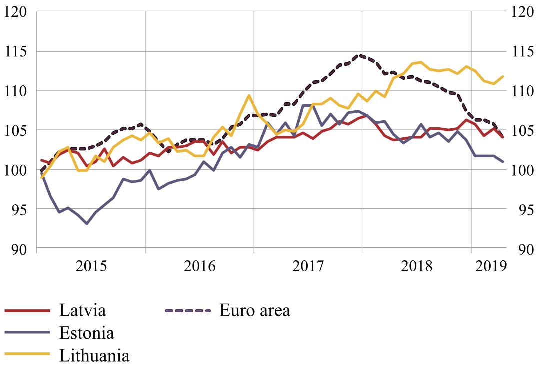


Chart 1.7
ECONOMIC SENTIMENT INDICATORS



Financial vulnerability of households and non-financial corporations

Household creditworthiness continues to improve primarily on account of steadily rising net real wage (an increase of 7.2% in 2018; see Chart 1.8). The number of persons employed also increased, with previously economically inactive persons entering the labour market. Unemployment has been on a downward trend already for nine consecutive years, standing at 7.4% in 2018. Robust growth of deposits and long-term savings in pension plans and life insurance in 2018 (8.7% and 3.4% respectively) also points to an improvement in the financial position of households.

The level of household indebtedness in Latvia remains one of the lowest in the EU and the lowest in the euro area (see Chart 1.9). At the end of 2018, the ratio of household liabilities to MFIs and leasing companies to

[18] Lists countries with strategic technical AML/CFT system deficiencies and/or weak effectiveness of the existing AML/CFT measures.

GDP and to disposable household income contracted to 17.9% and 29.6% respectively. Overall household interest payments to credit institutions decreased by 3% in 2018. The quality of household loan portfolio of credit institutions also continues to improve: at the end of 2018, the share of domestic household loans past due over 90 days declined to 2.6% {3.5%}.

The number of insolvencies filed continues to fall. Having contracted by 11.5% in 2018, insolvency proceedings of natural persons account for over two thirds of all insolvency proceedings.

Creditworthiness of non-financial corporations generally continues to improve. Against the background of strong economic growth, the turnover of non-financial corporations increased by 9.9% in 2018 (see Chart 1.10). This was the case in all sectors, with the strongest rise reported in construction on account of further absorption of the EU co-funding and growing private sector investment. Average profitability remained sound (3.7% in 2016, 4.6% in 2017 and 4.1% in 2018)[19].

With total investment increasing and credit institution lending slightly recovering, following an almost seven years long decline the overall debt of non-financial institutions has stabilised. According to the financial account statistics, the debt of non-financial corporations totalled 65.8% of GDP at the end of 2018. This includes liabilities to credit institutions (amounting to 28.8% of total liabilities of non-financial corporations and 19.0% of GDP) as well as liabilities to non-financial corporations, households and other financial intermediaries. The debt burden of non-financial corporations continues to ease gradually. The capital of non-financial corporations has an overall tendency to grow faster than liabilities, thus the debt-to-equity ratio of non-financial corporations improved from 1.6 times in 2016 to 1.5 times in 2018 (see Chart 1.11), whereas the interest coverage ratio

Chart 1.8
ANNUAL CHANGES IN AVERAGE NET WAGE AND HOUSEHOLD DEPOSITS
(%)

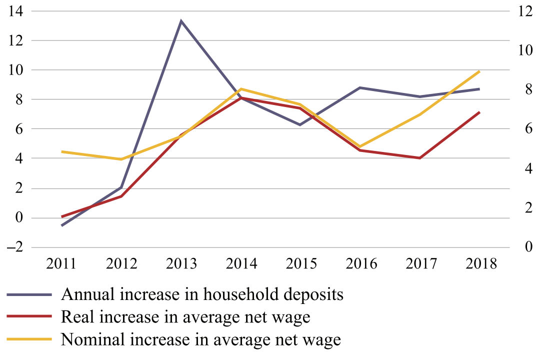


Chart 1.9
RATIO OF DOMESTIC LOANS FROM CREDIT INSTITUTIONS TO GDP IN EU MEMBER STATES
(in 2018; %)

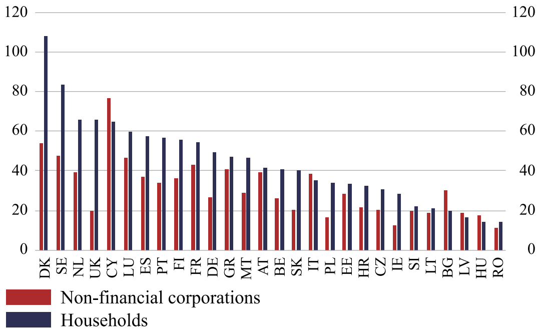
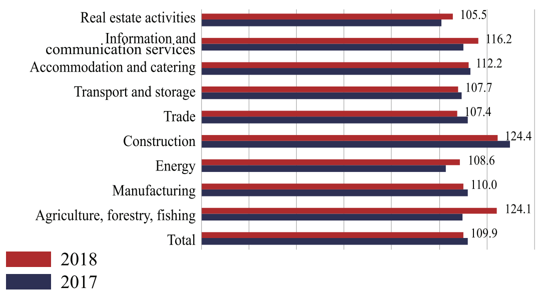


Chart 1.10
ANNUAL TURNOVER INDEX OF NON-FINANCIAL CORPORATIONS BY SECTOR
(previous year's turnover = 100)



of non-financial corporations[20] has increased from 6.7 times to 9.3 times in the course of two years.

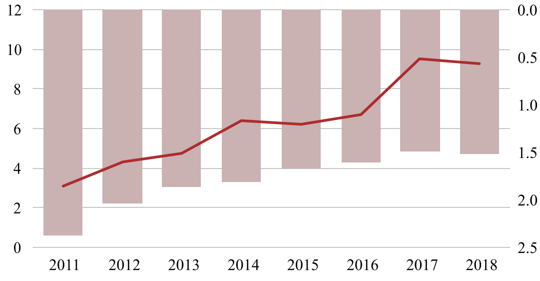
The number of companies excluded from the commercial register of the Register of Enterprises in 2018 increased by 20.6% in comparison with the previous year. This is mainly related to the fact that the Enterprise Register continued with removing inactive companies from the

[19] The financial indicators of non-financial corporations that include data on profit should be interpreted with caution, making comparisons in a longer-time perspective. As a result of changes in taxation framework, the year 2017 was concluded with extraordinary high net profits; therefore, the financial performance in 2018 is not comparable with that of the previous year (see Latvijas Banka's Financial Stability Report of 2018).

[20] The ratio of four-quarter earnings before interest and taxes and similar charges to interest payments and similar charges.

commercial register following the simplified liquidation procedure. Within the framework of the AML/CFT measures, in 2019 the Enterprise Register is going to exclude particularly high risk companies that have failed to disclose their beneficial owners. According to SIA LURSOFT data, the number of newly-registered companies continues to grow (an increase of 4.4% in 2018). The number of insolvency proceeding initiated by legal persons in 2018 was roughly the same as in the previous year.

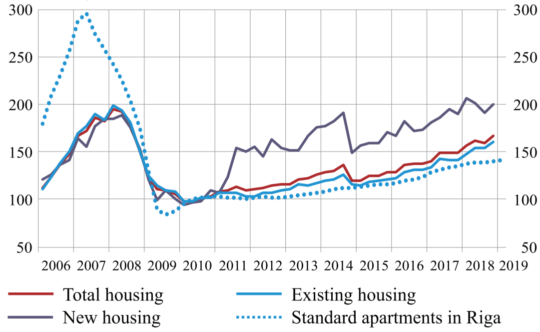
Chart 1.11
DEBT BURDEN OF NON-FINANCIAL CORPORATIONS



Real estate market development

The real estate market finds itself in an expansion phase of the development cycle. The rise in real estate prices remains strong; however, in some market segments it has slowed down. Although real estate market activity has somewhat contracted, overall it remains broadly unchanged in comparison with previous years. It is expected that an increase in household income and savings as well as the state support programme for house purchase will continue to support development of the housing market.

Chart 1.12
CSB'S HOUSE PRICE INDICES AND THE AVERAGE PRICE INDEX FOR STANDARD APARTMENTS IN RIGA COMPILED BY REAL ESTATE COMPANIES
(2010 = 100)



Prices are rising in both the new and existing housing segments (see Chart 1.12). In 2018, the CSB's house price index increased by 11.1%. The strong rise in housing prices is mainly attributable to a rapid increase in prices of the existing housing (12.3% {7.5%} in 2018). It should be noted that distinct transactions and changes in the market transaction structure may have a significant effect on the dynamics of the harmonised index in countries with relatively small or heterogeneous real estate market (such as Latvia's market). Therefore, the house price index is rather volatile in Latvia.

Information published by real estate companies suggests that the annual growth rate of standard apartment prices in Riga was slower (4.0% in 2018 and 3.0% in March 2019[21]; 9.2% in 2017). The price rise in the segment of existing housing is driven by the growing demand facilitated by higher income, low interest rates and the state support programme for house purchase as well as by the limited supply of affordable housing. The role of the latter factor is gradually starting to decrease since the supply of economy-class apartments is gradually rising due to construction growth.

The growth of new project prices has been volatile; however, its pace has decelerated overall. The CSB's new house price index picked up by 4.6% in 2018 vis-à-vis 10.0% in 2017. A more moderate price rise is a reflection of structural changes in the new housing segment, i.e. developers of apartment blocks have adapted to the domestic household purchasing power and more actively develop economy-class apartments. The highest number of apartments commissioned in apartment blocks since 2010 was registered in 2018 (annual growth 49.4%). According to the issued building permits, it is projected that the space and number of single- and multi-dwelling houses will continue to grow. An increase in the supply of economy-class apartments could continue to contribute to moderation in price dynamics in the segment of new projects. At

[21] Data provided by SIA LATIO, SIA Ober Haus Real Estate Latvia and SIA ARCO REAL ESTATE.

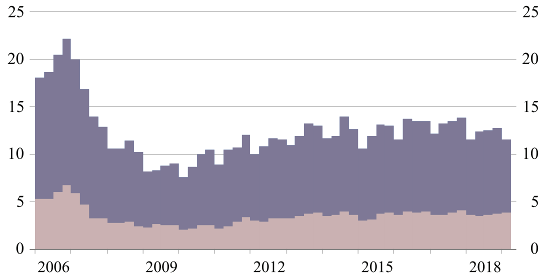
the same time, the rise in construction costs is very rapid and exceeds the increase in real estate prices.

Overall, the number of real estate purchases has remained broadly the same over the last few years (see Chart 1.13). Data of the Land Register suggest that the year 2018 saw the number of real estate transactions decrease by 6.7% in the country as a whole and by 5.1% in Riga. According to the experts of real estate companies, a large number of reservations and unfinished transactions in the commissioned economy class apartments and the new ones under construction has not yet been reflected in the number of purchases.

Overall, the availability of housing remained broadly unchanged over the past years since household income and real estate prices grew at a similar pace (see Chart 1.14). Over the last three years, the CSB's house price index, standard apartment prices in Riga and net wages in the country increased on average by 9.2%, 6.5% and 7.3% per year, respectively. The state support programme for house purchase also continues to contribute to the availability of housing.

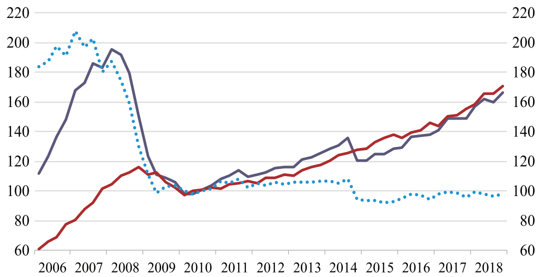
The rapid economic growth in the Baltic states and the environment of low interest rates promote further development of the Latvian commercial real estate sector. The amount of investment transactions in Latvia as a whole climbed in 2018. According to the real estate company Colliers International, the amount of real estate investment transactions in Latvia reached 300 million euro in 2018 (220 million euro in Estonia; 500 million euro in Lithuania). The CSB data suggest that activity was observed in all largest segments of commercial real estate (trading premises, offices, industrial buildings and warehouses), while a pickup in the number of building permits and expansion of the planned space point to an increase in activity also in 2019.

Chart 1.13
THE NUMBER OF PURCHASE CONTRACTS* IN LATVIA, INCLUDING RIGA, REGISTERED IN THE LAND REGISTER
(thousands)



* All types of property, including land.

Chart 1.14
AVAILABILITY OF HOUSING
(2010 = 100)



Lending development

Credit institution lending in Latvia has slightly recovered, albeit still remaining sluggish. The annual rate of change in domestic loans granted by credit institution was –3.5% in March 2019. The negative rate was a result of a temporary effect associated with structural changes in the credit institution sector: the banking licence of ABLV Bank, AS was cancelled in July 2018. The effect of the structural changes excluded, the annual rate of change in domestic loans was 1.8% (see Chart 1.15), whereas that of loans to non-financial corporations and households was 1.0% {–0.6%}.

At the same time, the rate of change in domestic lending remains significantly below its long-term trend and economic growth. The ratio of credit to domestic private non-financial sector to GDP was among the lowest in the EU countries: 34% at the end of 2018. The deviation of the ratio of credit[22]-to-GDP

[22] Credit institution loans to non-financial corporations and households and debt securities issued by non-financial corporations.

from its long-term trend remains very negative[23] – –26 percentage points in the fourth quarter of 2018 (see Chart 1.16).

The role of non-bank financial institutions in domestic lending continues to strengthen. At the end of March 2019, non-bank lenders accounted for 17% {16%} of all loans granted to non-financial corporations and households by credit institutions and non-bank lenders. The bulk of the loan portfolio of non-bank lenders (77%) consists of loans granted by leasing companies which are mostly subsidiaries of credit institutions. Looking at the loans granted by credit institutions and non-bank lenders together, the annual growth rate of loans to domestic non-financial corporations and households as in March 2018 would be 0.9 percentage point higher than the growth rate of loans issued by credit institutions only (see Chart 1.17).

The growth of lending to non-financial corporations is uneven. In the first half of 2018, lending was weak: credit institutions had become more cautious in light of the de-risking measures and assessed their cooperation with potentially riskier customers more critically. Access to credit was also affected by individual players exiting the market or reorganising. In the second half of 2018 and at the beginning of 2019, however, loans to non-financial corporations resumed growth. This was mainly on account of some large-sized long-term loans. Overall there are several structural factors weighing on lending to non-financial corporations: relatively large share of grey economy, gaps in protection of creditor rights (including in the field of insolvency), large number of borrowers with a negative credit history.

Chart 1.15
ANNUAL RATE OF CHANGE IN DOMESTIC LOANS BY SECTOR
(%)

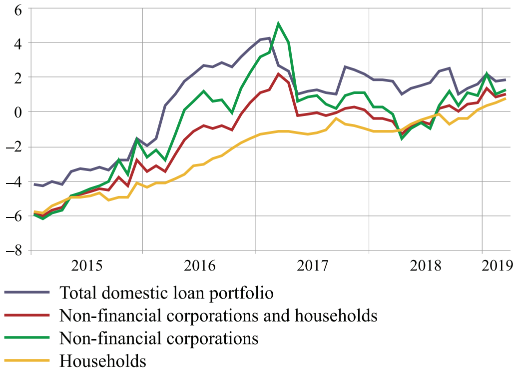


Chart 1.16
DEVIATION OF CREDIT-TO-GDP RATIO FROM LONG-TERM TREND
(%)

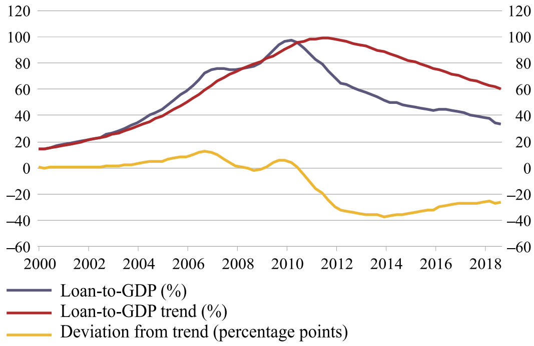
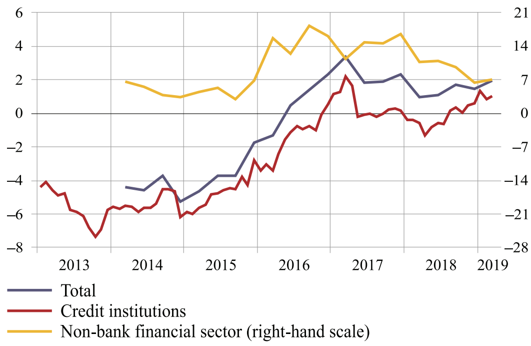


Chart 1.17
ANNUAL RATE OF CHANGE IN LOANS TO DOMESTIC NON-FINANCIAL CORPORATIONS AND HOUSEHOLDS
(%)



Within the framework of changing their business models, several credit institutions that were previously mainly focussed on foreign customers are now planning to become more active in lending to domestic customers. Some credit institutions intend to organise issues of non-financial corporation bonds, thus improving the corporations' access to financing. This could slightly improve the availability of credit for small and medium-sized enterprises with a higher risk score who have limited access to bigger lenders. At the same time, the

[23] In many EU countries where the available time series of data on loans are rather short, the deviations of credit-to-GDP ratios from the long-term trends estimated based on the recommendations of the European Systemic Risk Board are currently very negative. This can be explained by drawbacks in the statistical methodology: the long-term trend of credit-to-GDP ratio is misleadingly high as a result of a steep increase in private non-financial sector liabilities before the crisis and a steep fall under the impact of crisis. Therefore, even if lending remains persistent, the deviation will no longer serve as an early warning of intensifying cyclical risks. Latvijas Banka is working on an alternative signalling indicator.

currently limited experience of those credit institutions in the field of domestic lending and opportunities to raise adequate financing should also be considered.

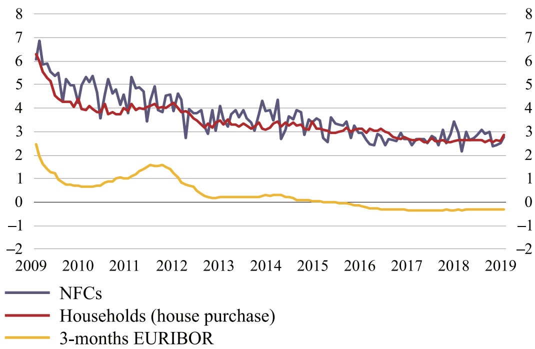
The annual rate of change in household loans adjusted by excluding the factors relating to structural changes in the credit institution sector **returned to a positive territory for the first time since 2008**, reaching 0.8% in March 2019. Household lending is supported by an improvement in the financial standing of households, the low interest rates and the state support programme for house purchase (see Box 2).

The lending policies pursued by credit institutions remain overall cautious. According to the results of the bank lending survey conducted by Latvijas Banka in cooperation with the ECB, credit standards have tightened. Credit institutions explained this with lower risk tolerance, higher cost of funds and balance sheet constraints as well as a more cautious assessment of the economic outlook. According to the results of the Household Finance and Consumption Survey, lenders (mostly credit institutions) fully or partly reject about 1/4 of all household credit applications and the proportion of refusals remains rather stable (see Box 3).

At the same time, the Credit Register data reveal that **the proportion of loans with a higher LTV in new household loans for house purchase is growing** (see Chart 1.20). This is mainly associated with the state support programme for house purchase (see Box 2). The average maturity of loans for house purchase is also increasing gradually (21 {20} years in 2018), yet it is not considered excessively long.

The interest rates on loans to non-financial corporations exhibited some volatility under the impact of some large loans with a different risk profile in 2018 and at the beginning of 2019. Looking overall, however, **the interest rates on loans to non-financial corporations and households were stable** (see Chart 1.18). Interest rates in Latvia are at their historical lows since money market indices are also persistently low as a result of the accommodative monetary policy, albeit remaining relatively high in comparison with other euro area countries.

Chart 1.18
INTEREST RATES ON NEW LOANS IN EURO
(%)



BOX 2. THE EFFECT OF THE STATE SUPPORT PROGRAMME FOR HOUSE PURCHASE

The state support programme for house purchase for families with children was introduced at the beginning of 2015. In 2018, the scope of the programme was expanded to cover support to young specialists[24].

[24] As of 1 March 2018, a state guarantee for housing purchase is also available to young specialists (borrowers having acquired vocational or higher education, aged 18–35 years, with no children) as well as families with children aged 18–23 years (previously guarantees were available to families with children up to 18 years of age). See Box "Amendments to the State Support Programme for House Purchase" in Latvijas Banka Financial Stability Report 2018.

Chart 1.19
NEW LOANS FOR HOUSE PURCHASE WITH A STATE GUARANTEE
(%)

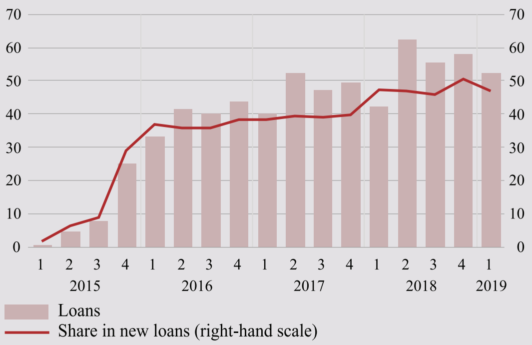
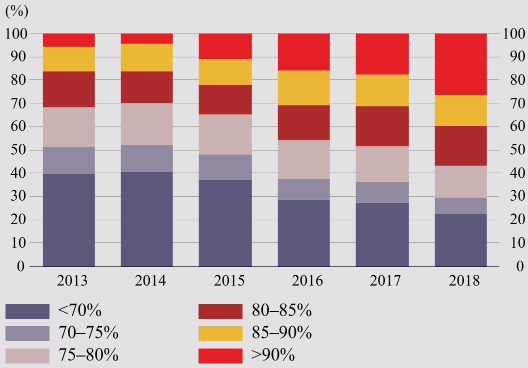


Chart 1.20
LTV RATIO OF NEW HOUSEHOLD LOANS FOR HOUSE PURCHASE



The state support programme is significant in the context of real estate market and mortgage lending development. More than a half (50.5%) of new loans for house purchase granted in the fourth quarter of 2018 and 47.1% of those granted in the first quarter of 2019[25] involved a state guarantee (see Chart 1.18). The state support programme has partly served for attaining social objectives: new buyers, previously lacking savings to purchase own housing (to pay the first instalment and fees), entered the market and availability of loans was improved. According to the data of the Credit Register of Latvijas Banka and AS Attīstības finanšu institūcija Altum, the average size of a loan for house purchase without a state guarantee granted in 2018 was 50 thousand euro, whereas that with a state guarantee granted to young specialists and families with children was 58 thousand euro and 69 thousand euro respectively.

The amount and share of loans with the LTV exceeding 90% has increased notably[26]. In 2018, these loans accounted for 26% of new loans for house purchase (see Chart 1.20). 94% of them were granted within the framework of the state support programme for house purchase. All major credit institutions eased their terms concerning the LTV ratio.

From the macroprudential supervision perspective, the fact that the maximum LTV of half of the new loans for house purchase (or every third loan) is allowed to reach 95% and this, in fact, is a widely exercised option, cannot be viewed as prudent policy[27]. **This reduces the effectiveness of the LTV restriction** and lowers responsible lending and borrowing standards, giving rise to concerns that the state support programme could increase financial stability risks in the long term.

Considering that the state support programme has an upward effect on housing prices, with time it becomes less effective: borrowers receive support for the first instalment, but at the same time, because of the growing housing prices, the amount of loan and the first instalment is increasing year by year.

In view of the accumulating impact of the state support programme and some undesirable effects (for instance, easing of credit standards, pressure on housing prices and potential effect on the government's contingent guarantee liabilities[28]), the authorities in charge of the programme's implementation should define the milestones, following which the programme should be narrowed down.

[25] More than 1/3 (36%) of all new loans for house purchase.
[26] Maximum LTV for loans exceeding 100 minimum salaries in Latvia (currently, 43 thousand euro) is 90% (95% for loans granted within the framework of the state support programme).
[27] The LTV restriction mitigates credit risk and loss given default. According to international standards, in order to support responsible lending the LTV restriction is mostly set at 80%–90%.
[28] In 2018, the accumulated amount of guarantees provided was 0.27% of GDP.

BOX 3. HOUSEHOLD FINANCE AND CONSUMPTION SURVEY: ASSESSING LATVIAN HOUSEHOLD ACCESS TO LOANS

The Household Finance and Consumption Survey (hereinafter, HFCS)[29] is a representative household survey compiling data on household wealth, including assets and liabilities, as well as on consumption and socio-demographic characteristics. According to the results of the latest HFCS, **Latvian household demand for loans increased slightly** in 2015–2017 compared to 2012–2014, i.e. the number of households that had applied for a loan edged up by 4.8 percentage points (from 16.2% to 21.0%; see Chart 1.21) and the share of households that did not apply for a loan since they believed that the loan would not be granted decreased from 8.1% to 5.9%.

In 2017, the national section of the Latvian HFCS contained questions that made it possible to analyse also the lenders' structure. When applying for new loans in 2015–2017, 63% of households submitted their loan applications only to a credit institution or a leasing company, 24% – only to a payday loan company, while 13% of households submitted their applications to both groups of lenders (see Chart 1.22).

Access to loans is primarily determined by a borrower's income. The lowest income quartile[30] households are less prone to apply for loans (see Chart 1.23) and also get refused more often (see Chart 1.24). The higher the income, the higher the share of households applying for loans and receiving them.

The survey results suggest that the second quartile households are the main target group of payday loan companies, but the households whose income exceeds 850 euro are primarily customers of credit institutions and leasing companies. Meanwhile, the lowest income quartile households have limited access to loans.

Chart 1.21
HOUSEHOLD LOAN APPLICATION ACTIVITY AND THE SHARE OF REFUSALS BY LENDERS
(% of all households participating in the survey)

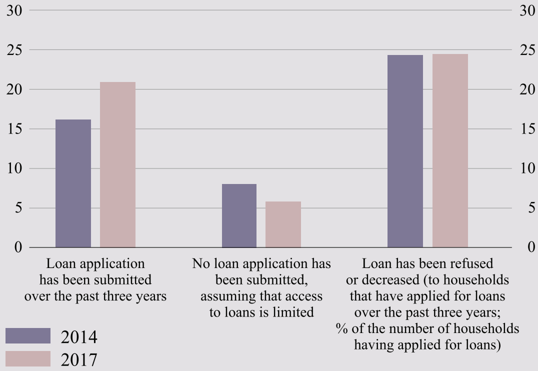
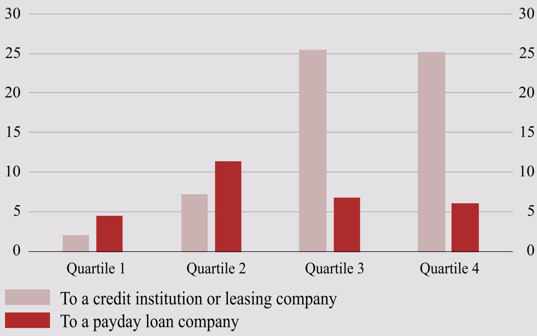


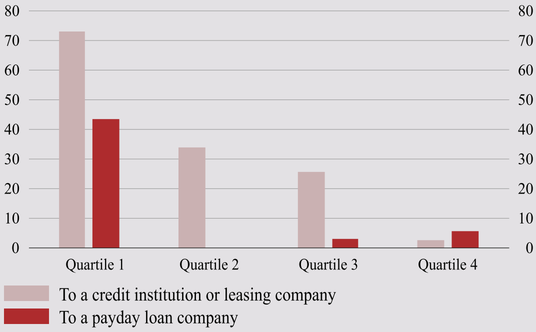
Chart 1.22
HOUSEHOLD LOAN APPLICATIONS SUBMITTED TO DIFFERENT LENDERS
(%)

Chart 1.23
HOUSEHOLD APPLICATION FOR LOANS OVER THE PAST THREE YEARS
(share of households in the respective quartile; %)



29 The central banks of all euro area countries conduct the HFCS. Three waves of the HFCS have taken place so far. Latvijas Banka participated in the second wave (from 2012 to 2015) and in the third wave (in 2017). 1249 households took part in the survey conducted in Latvia in 2017.
30 The first income quartile comprises households with average gross monthly income not exceeding 372 euro, the second – with income between 372 euro and 848 euro, the third – with income from 848 euro to 1582 euro and the fourth – with income exceeding 1582 euro.

Chart 1.24
SHARE OF REFUSALS* IN THE NUMBER OF HOUSEHOLDS THAT HAD APPLIED FOR LOANS
(%)



* A lender refused a loan, and it was impossible to get it in the amount requested from the same or another lender later on.

2. DEVELOPMENT AND RISKS OF THE CREDIT INSTITUTION SECTOR

In 2018, the Latvian credit institution sector experienced further significant structural changes in relation to the alteration of business models and reassessment of customers' risk exposure. Moderate expansion of business volumes continued in the largest credit institutions focusing on servicing domestic customers. Meanwhile, the business volumes and assets of the credit institutions previously servicing primarily foreign customers shrank notably (see Chart 2.1), i.e. they substantially reduced payment services provided to foreign customers (see Chart 2.2) and continued to adapt their business models to the new situation.

In view of the significant reduction in business volumes of the credit institutions, which had previously serviced mainly foreign customers, as well as the structural changes in their relatively homogeneous business models that have existed to date, the systemic risk analysis contained in the present Financial Stability Report no longer uses the established analytical practices of looking at developments in the above credit institutions separately from developments in other credit institutions (mainly the largest ones active in the domestic market)[31].

[31] In the previous Latvijas Banka's Financial Stability Reports, credit institutions were divided into two groups when analysing the credit institution sector, taking account of the considerable differences in their activity. In terms of assets, the credit institutions providing services mainly to domestic customers accounted for approximately half of the credit institution sector, but its other half was composed of the credit institutions focusing on servicing foreign customers and whose funding primarily stemmed from foreign customer deposits.

Chart 2.1
ASSETS, LOANS AND DEPOSITS BY CREDIT INSTITUTION GROUP
(billions of euro)

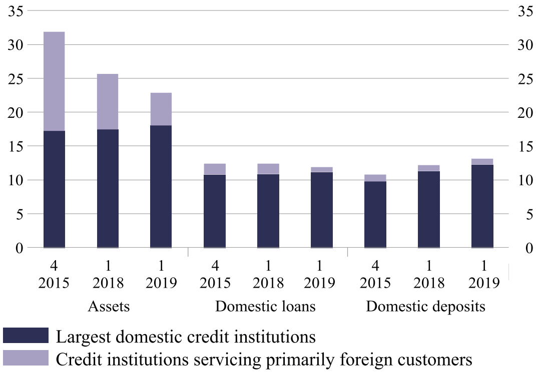
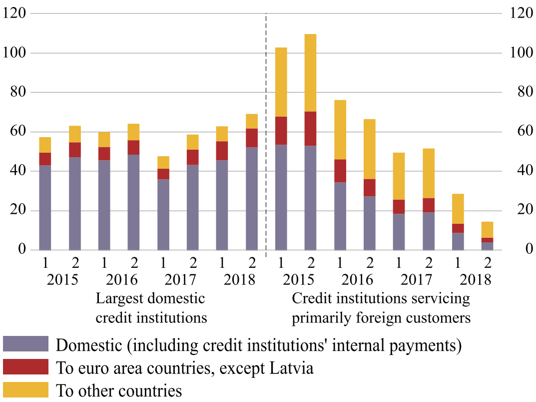


Chart 2.2
OUTGOING PAYMENTS OF CREDIT INSTITUTIONS' CUSTOMERS BY GEOGRAPHICAL BREAKDOWN
(half-year data; billions of euro)



The Latvian credit institution sector started the year 2019 also by two distinct branchification cases. The Luminor Bank AS Latvian subsidiary was transformed into the Luminor Bank AS Estonian branch, but the AS Citadele banka subsidiary in Lithuania – into the AS Citadele banka Latvian branch in Lithuania (see Box 4).

BOX 4. TRANSFORMING CREDIT INSTITUTIONS' SUBSIDIARIES INTO BRANCHES

At the beginning of 2019, the merger of Nordea Bank AB and DNB Bank ASA was completed, establishing a credit institution Luminor Bank AS in Estonia with branches in Latvia and Lithuania[32]. The Luminor Bank AS Latvian branch, despite a decrease in the value of its balance sheet during the transformation process, remains the second largest credit institution in Latvia (its assets constituted 19% of the total credit institution assets at the end of the first quarter of 2019). Following its transformation into a branch, Luminor Bank AS does not qualify as an O-SII anymore, and the O-SII capital reserve requirement

[32] The final stage in the process of merger of the Baltic structural units of DNB Bank ASA and Nordea Bank AB led to the creation of the Luminor Bank AS parent company in Estonia with branches in Latvia and Lithuania.

has been applied to it at the group level since 2 January 2019. The O-SII capital reserve requirement set at the group level in Estonia is 2% of RWA. The above requirement is identical to that previously applied to the Luminor Bank AS Latvian subsidiary.

The transformation of Luminor Bank AS into a branch means centralised management at the level of the Baltic states, including less burdensome administrative costs and reporting. At the same time, **the transformation of a systemically important credit institution of such a scale into a branch increases the following risks to financial stability:**

– when centralising internal risk management at the group level and optimising the Baltic group structure, the internal risk management can possibly weaken at the Latvian branch level;
– according to examples of international practices[33], a much more centralised strategy adapted to the needs of the entire banking group may not be fully suitable for meeting local financial market and economic development needs;
– in the case of potential crisis situations, the transmission of shocks from other Baltic states to Latvia would be accelerated;
– the efficiency of macroprudential measures may decrease in Latvia since EU legislation provides that cross-border reciprocity is mandatory only for the countercyclical buffer rate up to 2.5%, but in other cases the Estonian competent authority should take a decision on the reciprocation of the Latvian macroprudential measures;
– in the case of potential crisis situations, guaranteed compensation of deposits would fully depend on the DGF in Estonia[34];
– the amount of available information about the financial position and exposures of the respective branch declines (it is partly offset by the fact that Luminor Bank AS of Estonia and its branches fall under the ECB's single supervisory framework).

The transformation of the AS Citadele banka Lithuanian subsidiary into the AS Citadele banka Lithuanian branch has no material impact on the Latvian credit institution sector since the business volumes of AS Citadele banka are small in Lithuania (in late 2018, the assets of the AS Citadele banka Lithuanian subsidiary constituted only 1.7% of the total assets of the Lithuanian credit institution sector[35]). The above Lithuanian branch helps the AS Citadele banka group to reduce administrative costs and minimise the reporting burden. As a result of this transaction, the assets of the Lithuanian branch have been reflected in individual level reports of AS Citadele banka since early 2019, thus increasing the individual level balance sheet of AS Citadele banka. The balance sheet increase came from both the loan portfolio of the Lithuanian branch and (mainly) from deposits by Lithuanian domestic customers. Thus, the share of deposits by customers of the Baltic states in the total deposits of the Latvian credit institution sector expanded by 2.3 percentage points (up to 3.6% of the total deposits). Meanwhile, the share of deposits by foreign customers, who are not residents of EU countries, in the total deposits continued on a downward trend (by 0.7 percentage point since the end of 2018) and accounted for 8.5% of the total deposits at the end of March 2019.

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[33] Albertazzi, U., Bottero, M. *The Procyclicality of Foreign Bank Lending: Evidence from the Global Financial Crisis*. Banca D'Italia Temi di Discussione, No. 926, July 2013. 46 p.
[34] The DGF of Estonia was 2.6% of the total collateralised deposits in late 2017 which is much above the average figure in the EU. However, it should be taken into account that the transformation of Luminor Bank AS resulted in a significant expansion of the credit institution sector in Estonia.
[35] Data provided by Lietuvos bankas.

Credit risk

The quality of the credit institutions' loan portfolio is gradually improving. The NPL share in the total loan portfolio[36] has contracted from 9.6% at the end of March 2019 to 7.1% a year later. A large part of NPLs consists of the unlikely-to-pay loans not past due. Loans past due over 90 days constituted 4.0% of the total loan portfolio (see Chart 2.3).

The quality of the loan portfolio is expected to improve further along with economic growth, a rise in borrowers' income and a gradual expansion of the domestic loan portfolio. Moreover, the major lenders plan to maintain tight credit standards.

With borrowers' creditworthiness improving, the credit risk of the domestic loan portfolio is gradually shrinking. NPLs are declining, and their share in the domestic loan portfolio reached 4.9% {7.3%} at the end of March 2019. The loan portfolios of both non-financial corporations and households show some improvement (see Chart 2.4). Real estate related sectors face the most significant decrease in NPLs by sector (in operations with real estate and in construction). However, the share of NPLs remains rather high in loans granted to these sectors (9.0% and 6.1%, respectively, at the end of March 2019). More than half of these NPLs were granted at the outset of the 2008 crisis or before it, and most of them are previously renegotiated loans not past due having the status of unlikely-to-pay loans. With the quality of the domestic loan portfolio increasing, new loan loss provisions by the largest lenders of the domestic market follow a downward path, improving their profitability indicators.

In absolute terms, the foreign customers' loan portfolio saw its NPLs shrink. However, the share of NPLs has remained broadly unchanged in the foreign loan portfolio due to its contraction[37]. It constituted 21.7% {22.4%} of the foreign loan portfolio at the end of March 2019. Loans to foreign customers are considered riskier due to sovereign, legal and reputational risks, thus the contraction of foreign customers' loan portfolio mitigates exposure to foreign customers' credit risk.

Chart 2.3
NPLS AND THEIR SHARE AND THE SHARE OF ACCUMULATED IMPAIRMENT IN THE TOTAL LOAN PORTFOLIO
(billions of euro)

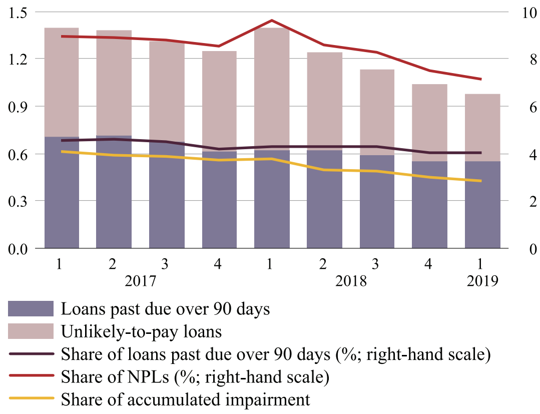
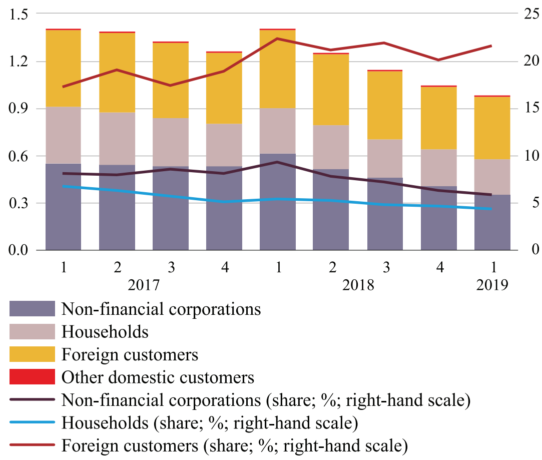


Chart 2.4
NPLs AND THEIR SHARE IN THE RESPECTIVE DOMESTIC LOAN PORTFOLIO
(billions of euro)



Funding and liquidity risks

Non-bank customer deposits still dominate in the funding structure of credit institutions. Deposits by domestic customers continue on a steady upward path. Their annual growth rate stood at 7.8% in March 2019, and they constituted 57.4% of credit institution sector's liabilities at the end of March.

[36] Loans to non-banks are analysed hereafter in this section. These are consolidated data for credit institutions subject to the consolidated supervision and individual-level data for other credit institutions and branches of foreign credit institutions. As of 2018, data are not fully comparable with previous observations since classification of portfolios was changed by International Financial Reporting Standard 9, which took effect in 2018.

[37] In December 2018, the foreign portfolio was 17.4% smaller in year-on-year terms, and its share in the total loan portfolio of credit institutions was 14.0%.

At the same time, foreign customer deposits contracted. In March 2019, they posted a year-on-year decline of 41.4%, including a decrease in deposits by EU foreign customers by 10.7% and deposits by customers of other countries – by 59.4% (see Chart 2.5). The share of foreign customer deposits in the total non-bank deposits has fallen to 21.2% (including deposits by customers of EU countries constituting 12.7% and those by customers of other countries – 8.5%). Along with the decrease in foreign customer deposits, the share of US dollars in the total financial liabilities of credit institutions shrank notably (almost three times since the beginning of 2018, amounting to 8.7% at the end of March 2019).

The sizeable fall in foreign non-bank deposits has had no negative effect on financing of the economy and the provision of financial intermediation services domestically since the involvement of the credit institutions, which used to attract foreign deposits, in the domestic credit market has so far been limited (see Chart 2.1). Moreover, they continue to maintain considerable reserves of liquid assets.

The substantial drop in foreign customer deposits suggests that the Latvian credit institution sector has experienced sound reassessment of the risks associated with the above source of funding. Reinforced assessment of high-risk customer activity led to suspension of cooperation with part of foreign customers. The decrease in credit institution sector's foreign liabilities has been viewed as a positive development by international credit rating agencies whose assessment concerning Latvia's long-term liabilities in foreign currencies either increased or remained unchanged[38], with a stable future outlook.

[38] *https://www.kase.gov.lv/en/debt-management/credit-rating.*

Chart 2.5
CHANGES IN NON-MFI DEPOSITS AND THEIR GROWTH RATE
(in comparison with the respective period of the previous year; %; billions of euro)

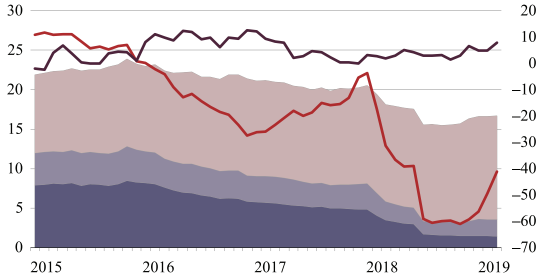
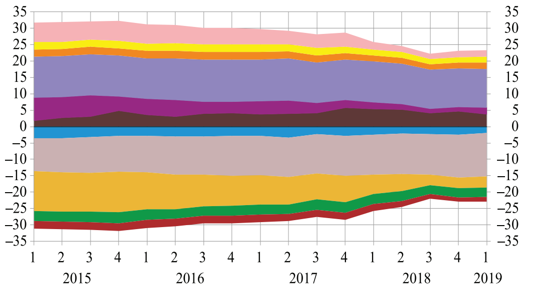


Chart 2.6
COMPOSITION OF CREDIT INSTITUTION ASSETS AND LIABILITIES
(billions of euro)



Latvian credit institutions are not active in tapping the financial market as a source of funding (see Chart 2.6). **Some credit institutions have started to collect household deposits via web platforms to attract funding and offer new financial products.** This enables credit institutions to mobilise more stable medium-term funding and improves slightly the maturity composition of their funding. However, it is more exposed to the outflow risk after the deposit maturity date (see Box 5).

BOX 5. FUNDING VIA WEB PLATFORMS – A NEW WAY OF ATTRACTING FUNDINGS

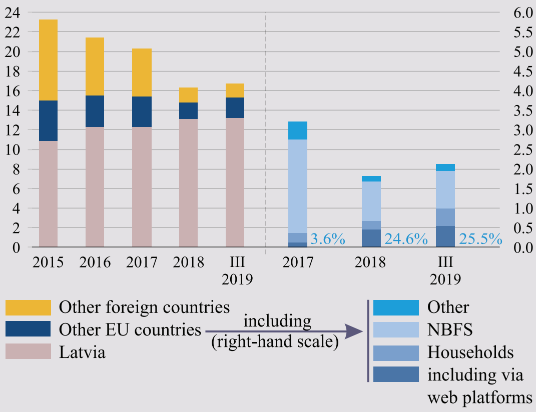
Taking account of the decrease in foreign customer deposits and the change in business models, the issue of mobilising new funding still remains open for the credit institutions having serviced mainly foreign customers so far. Some credit institutions have started to gather deposits from less risky foreign customers, including those of EU countries, via web platforms.

In the low interest rate environment, Western European depositors are looking for ways to generate higher interest income. The EU single market is becoming increasingly popular in Western European countries as a place for depositing excess funds, notably with the credit institutions offering higher interest rates abroad than the local ones.

In the most recent years, a possibility to place deposits in the credit institutions of other EU countries has become widely available via web platforms for attracting fixed-term deposits. This allows users, following their registration on the web platform, to compare interest rates and other deposit terms and conditions in various partner banks[39] and choose the most appropriate offer. The following information about the specific service offered by each credit institution is available: a description of the respective credit institution and the country in which it is established, the available deposit maturity dates, deposit restrictions, interest rates and taxes payable for the interest income received in compliance with the national jurisdiction of the respective partner bank. Web platforms are user-friendly since a remote customer identification procedure[40] can be carried out, and there is no need to visit the country where the credit institution is located to become its customer.

Several Latvian credit institutions are also new users of such web platforms, which provides an opportunity to attract deposits from Western European customers. Across the entire credit institution sector, the deposits collected via web platforms currently constitute only a small share of all non-bank deposits received by the credit institution sector (approximately 3% according to projections made by Latvijas Banka at the end of March 2019). However, their importance has substantially increased in funding of several credit institutions, and they accounted for more than one fourth of the attracted deposits in deposits by customers from EU (except Latvia) countries (see Chart 2.7). The amount of funding mobilised by the largest lenders via web platforms is insignificant.

Chart 2.7
DYNAMICS OF CREDIT INSTITUTION DEPOSITS BY COUNTRY GROUP
(billions of euro)



The EU Directive on deposit guarantee schemes[41] makes the web platforms for attracting fixed-term deposits attractive from the perspective of the protection of customer rights. The Directive provides that the respective country's DGF shall guarantee the repayment of up to 100 000 euro. This is the maximum amount to be deposited via web platforms in one credit institution. Thus, in the case of unavailability of deposits to depositors in any of the credit institutions registered in the EU, the respective country guarantees the repayment of all deposits in full. This enables a depositor to invest in more profitable products abroad while simultaneously enjoying the state guarantee for these deposits. Web platforms charge commissions for each attracted deposit, taking account of the amount and maturity of the respective deposit.

[39] The credit institutions cooperating with web platforms and collecting deposits via web platforms.
[40] To become a web platform customer, two means of customer identification are possible: remote identification, using an online solution, or face-to-face identification at a German post office. The identification offered by these web platforms enables customers to make deposits with all partner banks via a web platform. This type of identification does not allow customers to use other services provided by partner banks.
[41] Directive 2014/49/EU of the European Parliament and of the Council of 16 April 2014 on deposit guarantee schemes.

Although the amount of deposits received from foreign customers by Latvian credit institutions has contracted significantly as a whole,[42] foreign customer deposits guaranteed by the DGF expanded by 83 million euro[43], between March 2018 and March 2019, including the increase by 76 million euro in the first quarter of 2019[44]. These dynamics were driven by the fact that the foreign customer deposits attracted so far largely exceeded 100 000 euro, but those mobilised via web platforms do not exceed 100 000 euro. If credit institutions continue to attract a large number of small household deposits, the amount of deposits guaranteed by the DGF may edge up.

In most cases, the mobilisation of deposits via web platforms costs more than attracting foreign customer deposits without intermediaries. The average interest rates[45] offered to customers for their deposits made via web platforms and the interest rates offered to other customers of the same credit institutions for similar services do not differ significantly, and in certain cases they are even lower than the interest rates on fixed-term deposits by domestic and foreign households. Account should also be taken of the payments made by credit institutions to web platforms for their use. This makes the total costs of financing higher than the interest rates offered by these credit institutions in the local and foreign markets. Meanwhile, the spread between interest rates on loans and deposits shows that in general **credit institutions recover the costs resulting from the mobilisation of funding by significantly increasing interest rates on loans which in turn can indicate that they get involved in financing riskier projects.**

The fixed-term deposits mobilised via web platforms improve the maturity composition of financing of credit institutions providing services to foreign customers. However, this may pose refinancing and liquidity risks since such deposits, unlike their traditional types, are more similar to market financing by their economic substance. After the deposit maturity date, credit institutions have to refinance these deposits in competition with the interest rates offered by other credit institutions of EU countries via web platforms. It is only the fixed-term deposit service that links the attracted depositors with the respective credit institution, and the technological solution makes it possible to transfer funds quickly and easily to another credit institution offering more competitive interest rates.

Currently, the risks associated with the attraction of deposits via web platforms are not systemic ones, but if the mobilisation of such deposits becomes increasingly widespread, potential financial stability risks relate to an increase in DGF liabilities and the potential temporary provision of more state support necessary to fulfil them as well as to the refinancing risk upon maturity of the respective deposit.

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[42] Excluding ABLV Bank, AS.

[43] Excluding deposits by foreign customers of AS Citadele banka and the Luminor Bank AS Latvian branch since changes in the above deposits were driven by structural changes in these credit institutions (see Box 4).

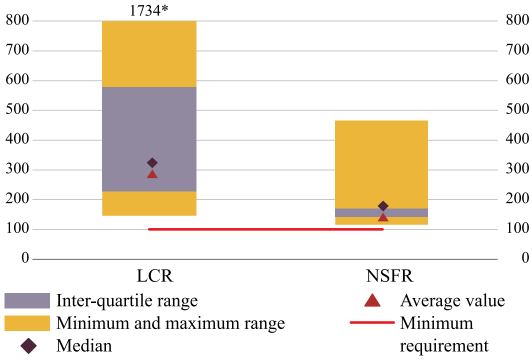
[44] This increase constituted 1.0% of the total credit institution deposits guaranteed by the DGF at the end of the first quarter of 2019.

[45] Credit institutions offer customers variable interest rates on deposits made via web platforms, and the interest rate depends on the maturity of the specific deposit (the longer the maturity, the higher the interest rate). Latvian credit institutions offer to make deposits via web platforms with maturities ranging from three months to five years.

Despite the significant decrease in deposits received from foreign customers and somewhat more active lending to domestic customers, **the liquidity risk of credit institutions has not increased overall and remains limited as credit institutions continue to maintain a considerable amount of liquid assets** which is more than sufficient to ensure the compliance with the LCR, NSFR (see Chart 2.8) and the individual additional FCMC liquidity ratio requirements[46] established by the FCMC within the SREP.

The results of the credit institution liquidity stress tests conducted by Latvijas Banka in the first quarter of 2019 also suggest that their ability to absorb the shocks caused by potential financing outflows is overall high, but that of subsidiaries of Nordic banks with centralised liquidity management at the group level is lower (see Box 6).

Chart 2.8
CREDIT INSTITUTIONS' LCR AND NSFR
(31 March 2019; %)



* Credit institutions' maximum LCR.

[46] See Box 5 of Latvijas Banka's Financial Stability Report 2018.

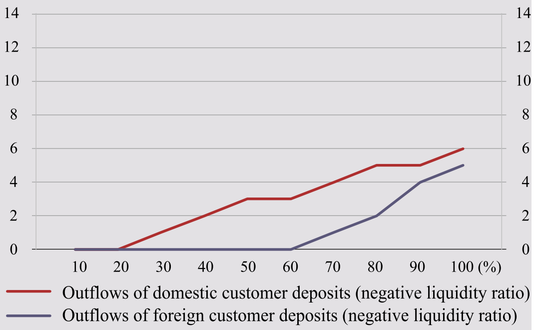
BOX 6. CREDIT INSTITUTION LIQUIDITY STRESS TESTS

The liquidity stress test results are based on the data of the end of the first quarter of 2019. The ability of credit institutions to withstand the risks of financing outflows was assessed during the stress test by employing the liquidity ratio[47] the FCMC uses for setting individual additional liquidity requirements for credit institutions providing services to foreign customers within the SREP and which is equivalent to the FCMC liquidity ratio whose minimum requirement of 30% was binding on all credit institutions prior to the LCR requirements took effect in full.

Liquidity stress tests evaluate the significance of the potential consequences of financial outflows. The results of the stress tests indicate the tolerance of credit institutions to the outflows of foreign non-MFI customer deposits and those of domestic non-MFI customers before their liquidity ratio (and thus the amount of their liquid assets) would decrease to 0, assuming that credit institutions have no access to additional resources to offset the funding outflows.

According to the stress test results (see Chart 2.9), **all credit institutions would be able to withstand the outflows of up to 20% of domestic customer deposits and the outflows of more than 60% of foreign customer deposits.** The ability of the largest credit institutions, mainly subsidiaries of Nordic banks with centralised liquidity management and possibilities to obtain additional liquidity from their parent banks, to withstand the outflows of domestic customer deposits is lower.

Chart 2.9
RESULTS OF LIQUIDITY STRESS TESTS
(31 March 2019; number of credit institutions)



[47] The ratio of unencumbered liquid assets (vault cash; claims on Latvijas Banka and solvent credit institutions whose residual maturity does not exceed 30 days, and claims with other maturity if their recovery prior to the maturity has been stipulated in the agreement; investment in financial instruments whose maturity (repayment, sale term) is up to 30 days as well as other securities whose market is permanent and unrestricted) to the total of credit institutions' current liabilities with residual maturity under 30 days.

Chart 2.10
RESULTS OF THE FIRST ADVERSE LIQUIDITY STRESS TEST
(31 March 2019; number of credit institutions)

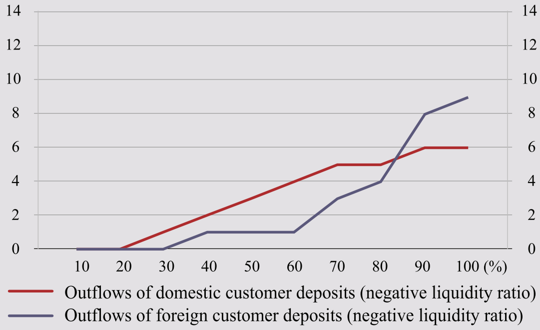
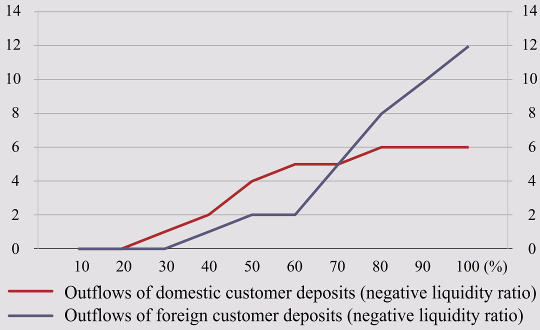


Chart 2.11
RESULTS OF THE SECOND ADVERSE LIQUIDITY STRESS TEST
(31 March 2019; number of credit institutions)



Additional stress tests involving two severely adverse scenarios were performed. The assumptions of adverse Scenario 1 foresee that it is impossible to pledge or sell the securities portfolio, except euro area government securities with a credit rating no lower than A– and those issued by other countries' governments where at least one of the long-term ratings by three international credit rating agencies is AAA. In relation to euro area government securities, it is assumed that they (except AAA-rated securities) would lose 30% of their value within adverse Scenario 1, and they could be used by applying a 3.0% discount in the Eurosystem's monetary policy operations. In adverse Scenario 2, in addition to the above assumptions of adverse Scenario 1, it is provided that no credit institution has access to claims on MFIs (except claims on the credit institutions within the group) from a country on whose MFIs the specific credit institution has the highest volume of claims (except claims on the credit institutions within the group).

Under adverse Scenario 1, credit institutions' ability to withstand the outflows of domestic customer deposits remains broadly unchanged (credit institutions withstand no less than 20% of the outflows), but their ability to withstand the outflows of foreign customer deposits slightly deteriorates (credit institutions can withstand no less than 30% of the outflows) since foreign securities with long-term credit ratings lower than AAA constitute part of several credit institutions' liquid assets. However, the capacity of credit institutions to absorb the outflows of foreign customer deposits remains high (see Chart 2.10). **In adverse Scenario 2 vis-à-vis adverse Scenario 1, the ability of credit institutions to withstand the outflows of domestic and foreign non-MFI customer deposits does not notably deteriorate either** (see Chart 2.11) since there are no significant claims on credit institutions that do not form part of the group to which the respective credit institution belongs.

Profitability

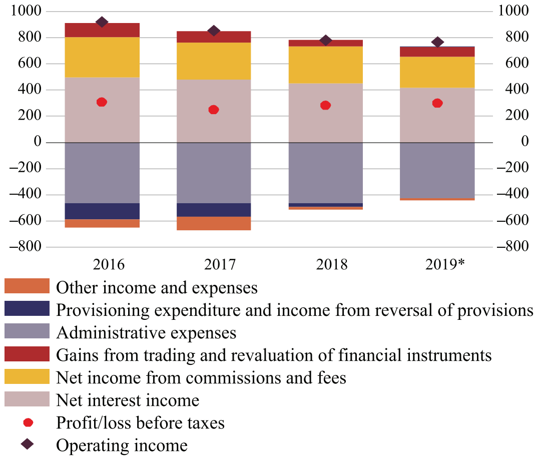
As a result of favourable domestic economic development, the profitability risk of credit institutions can be overall considered low. Nevertheless, for some credit institutions historically focused mostly on foreign customers, considering major operational changes and the uncertainty surrounding their future business models and profit generation options, the risk has intensified. With the customer base changing and temporary profit generation factors fading, some of the credit institutions have to search for new market niches to maintain profitability. Changing a business model takes time and its effect on a credit institution's profitability would only become fully evident over the coming years.

Several one-off events had significant profitability implications unrelated to the financial operation of credit institutions in 2017 and 2018. The effects stemming from the cancellation of ABLV Bank, AS banking licence and tax reform[48] in 2018 and those from the establishment of Luminor Bank AS group[49] and deferred tax asset write-offs in several credit institutions[50] in 2017 interfere with the analysis of profitability trends; therefore, these factors have been excluded from further analysis[51].

In 2018, the pre-tax profit of credit institutions totalled 282.8 million euro on a consolidated basis {250.3 million euro}. Although this is an impressive increase in comparison with the previous year, it was mainly attributable to the shrinking of net provisioning expenses (see Chart 2.12).

The operating income of credit institutions overall contracted by 5.3% in 2018. The operating income of major lenders remained stable despite the persistently sluggish lending, implementation of money laundering and terrorist financing risk mitigation measures and other structural changes[52]. Favourable domestic economic development supports an improvement in borrowers' creditworthiness, thus alleviating the associated risks for lenders. A slight increase in net interest income was primarily underpinned by the stable spreads. Gains from trading and revaluation of financial instruments also made a positive contribution to operating profit. At the same time, the operating income of some smaller credit institutions contracted significantly: the number of customers and payments (see Box 7) as well as deposits decreased considerably as a result of ending business with high-risk customers and implementing risk mitigation measures to comply with the new requirement banning business with high-risk shell companies. Net interest income of the above credit institutions declined and their net income from commissions and fees has a tendency to shrink, except for a temporary increase reported in the first half of 2018.

Chart 2.12
CREDIT INSTITUTION INCOME, EXPENSES AND PERFORMANCE RESULTS
(consolidated basis; millions of euro)



* Annualised first quarter data.

Overall, the administrative expenses of credit institutions remained broadly unchanged. Major lenders faced slightly higher expenses primarily on account of rising wages and other expenses related to implementation of regulatory requirements. Some other credit institutions, on the contrary, reduced their administrative expenses.

Net provisioning costs contracted significantly, but also on account of two different reasons: for major lenders on the domestic market they decreased along with the easing of credit risk associated with domestic borrowers, whereas for some other credit institutions because they sold part of their financial assets and reversed their provisions

Cost efficiency of credit institutions slightly deteriorated in 2018, with the aggregate cost-to-income ratio reaching 61.3% {58.0%} (see Chart 2.13). This was a result of both higher administrative expenses for major borrowers and a fall in the income of other credit institutions. Nevertheless, the cost efficiency of credit institutions remains better than the EU average which is 64.6%[53].

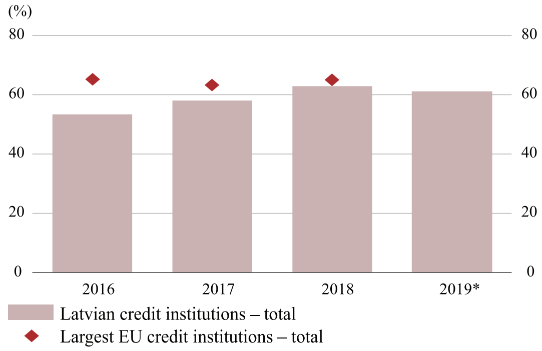
[48] On 1 January 2018, the revised Law on Corporate Income Tax took effect in Latvia establishing that corporate retained earnings are not subject to CIT. Consequently, there will be no CIT estimated on the profit earned in the respective reporting period in the profit and loss statements of credit institutions for 2018. Thus when comparing the data for 2018 and 2017, it is more objective to compare earnings before taxes.
[49] In the process of establishing Luminor Bank AS, when transferring the balance sheet of the Latvian Branch of Nordea Bank AB to Luminor Bank AS, the profit accumulated by the Latvian Branch of Nordea Bank AB over the first nine months of 2017 was not transferred to the profit and loss statement.
[50] AS Citadele banka and Signet Bank AS wrote off their deferred tax assets following amendments to the Law on Corporate Income Tax.
[51] The effect of the sale of VISA Europe Limited shares in 2016 has also been excluded from data on 2016.
[52] For example, the establishment of Luminor Bank AS group and preparations for a cross-border merger.
[53] *European Banking Authority. Risk Dashboard Data as of Q4 2018.*

Weighted average ROE of Latvia's credit institutions increased to 9.4% {6.6%} (see Chart 2.14). This, however, was not just a result of shrinking net provisioning costs but also reflected the impact of the implemented tax reform: earnings after taxes used in ROE estimates were bigger because credit institutions did not have to pay CIT on retained earnings in 2018. Nevertheless, regardless of the tax reform effect the average ROE of credit institutions points to good profitability in comparison with the average ROE of EU credit institutions (6.5%[53]). Average ROA of Latvia's credit institutions also increased to 1.2% {0.8%} on account of both the above-mentioned reasons as well as shrinking assets.

Overall profitability of credit institutions slightly deteriorated in the first quarter of 2019 in comparison with the respective period of the previous year, with earnings before taxes shrinking by 5.6%. This was mainly the effect of declining net interest income and net commissions and fees, partly offset by the falling administrative expenses and net provisioning costs. In the first quarter of 2019, aggregate ROE increased to 11.4% {9.7%} primarily as a result of structural changes[54].

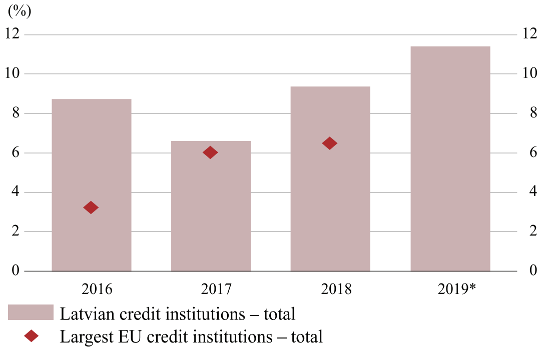
[54] After Luminor Bank AS became a branch, its profit and capital is no longer taken into account when estimating ROE.

Chart 2.13
AVERAGE COST-TO-INCOME RATIO OF LATVIAN AND THE LARGEST EU CREDIT INSTITUTIONS



* Annualised first quarter data.

Chart 2.14
AVERAGE ROE OF LATVIAN AND THE LARGEST EU CREDIT INSTITUTIONS



* Annualised first quarter data.

BOX 7. DEVELOPMENT AND STRUCTURE OF CREDIT INSTITUTION CUSTOMER PAYMENTS

As a result of financial sector and AML/CFT measures, the value and structure of credit institution customer payments changed significantly in 2018. Moreover, the FCMC expanded the scope of statistics collected on credit institution customer payments via the correspondent banking network considerably[55]. This statistics, combined with Latvijas Banka payment statistics[56] and non-bank external payment statistics[57], enabled a more detailed analysis of the structure of credit institution customer payments. All scopes of

[55] FCMC statistics on credit institution customer payments via the correspondent banking network is monthly statistics on interbank payments of credit institutions customers. This statistics is available since 2014; in 2018, it was supplemented with information about payment originator and beneficiary banks.
[56] Latvijas Banka payment statistics is biannual statistics on the aggregate volume and value of credit institution customer payments (including credit institutions' internal payments, i.e. customer intrabank payments).
[57] Latvijas Banka external payment statistics is monthly statistics compiled by the Statistics Department of Latvijas Banka, which includes only data on transactions between residents and non-residents exceeding 10 thousand euro. It includes remittances in any currency by way of non-cash or cash payments and credit institution services where one party (beneficiary or payer) is a resident and the other party is a non-resident, as well as information of increase or decrease of resident deposits with credit institutions abroad. Transactions with payment cards are excluded. Respondents are credit institutions and merchants. The above statistics is collected for balance of payments purposes.

reporting were compared, where possible, however, considering that the reports serve different purposes, there may be differences on account of transaction and payment types not described in this Box.

According to the payment statistics compiled by Latvijas Banka, **the aggregate value of credit institution customer payment outflows has dropped to the lowest level recorded since 2000. The value of cross-border payments has also declined to the lowest level of the last decade** (27 billion euro in the second half of 2018; see Chart 2.15). The drop is the most notable mainly in credit institutions focussed on foreign customers, where the aggregate value of customer payments has decreased more than eight times in comparison with the second half of 2015.

The value of cross-border payments by customers of Latvia's credit institutions is approaching the value of payments made by residents to non-residents (see Chart 2.16). This means that, with payments between non-residents shrinking, an increasingly larger proportion of cross-border payments is associated with the economic activities of residents (including trade and investment).

Comparison of Latvijas Banka payment statistics and the statistics on interbank payments by credit institution customers compiled by the FCMC[58] leads to a conclusion that the value of interbank payments included in the FCMC statistics constitutes about 60% of the value of credit institution customer payments included in the statistics compiled by Latvijas Banka (see Chart 2.17). This can be explained by the different scopes of both statistics, i.e. mostly by the fact that the FCMC payment statistics include payments made via correspondent banking network (including payments in central bank money within the meaning of the regulation governing the compilation of the given statistics). The difference is mostly observed in the payment data of the largest credit institutions of the domestic market and it is mainly associated with the intrabank payments of domestic customers of credit institutions, which from the point of view of the country's reputation and money laundering and terrorist financing risk are less risky as compared to payments of foreign customers and cross-border payments.

Chart 2.15
PAYMENT OUTFLOWS OF LATVIA'S CREDIT INSTITUTION CUSTOMERS
(semi-annual; billions of euro)

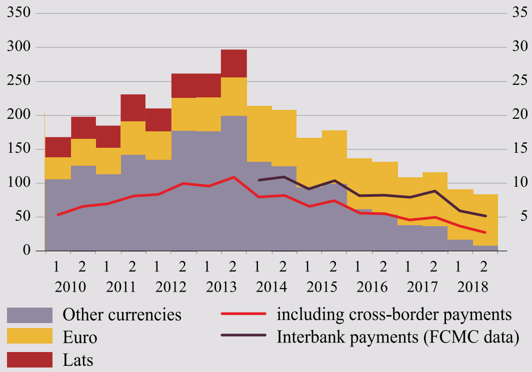
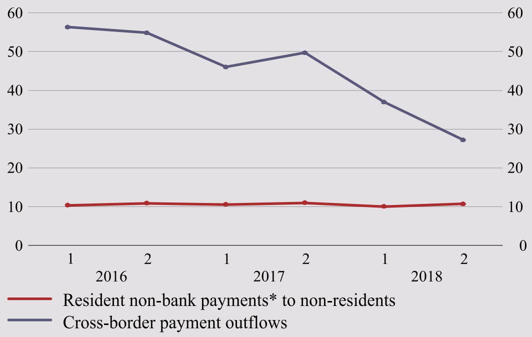
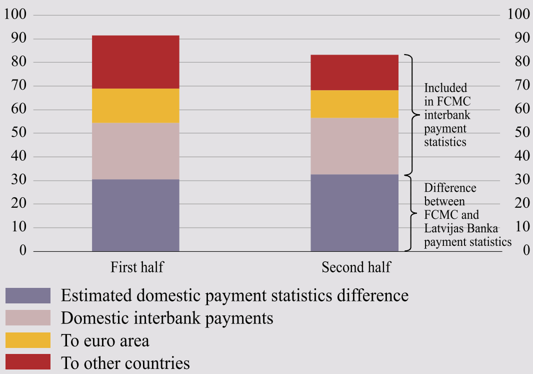


Chart 2.16
COMPARISON OF LATVIA'S CROSS-BORDER PAYMENT OUTFLOWS WITH NON-BANK EXTERNAL PAYMENT STATISTICS*
(billions of euro)



* Includes transactions over 10 thousand euro between residents and non-residents (including those conducted outside credit institutions) as well as cash transactions, but excludes card payments.

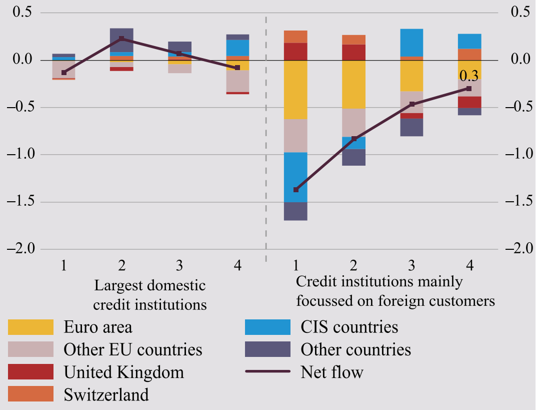
Chart 2.17
PAYMENT OUTFLOWS OF LATVIA'S CREDIT INSTITUTION CUSTOMERS BY GEOGRAPHICAL DESTINATION
(in 2018; billions of euro)



[58] The data from both reports were compared in terms of both volume and scope, yet considering that the reports serve different purposes, there may be differences on account of some transaction and payment types that could not be identified.

The FCMC statistics on net flows of cross-border payments of foreign customers (inflows minus outflows) by payment originator bank and beneficiary bank country show that **in 2018 foreign customers mostly made transfers to EU credit institutions** (see Chart 2.18).

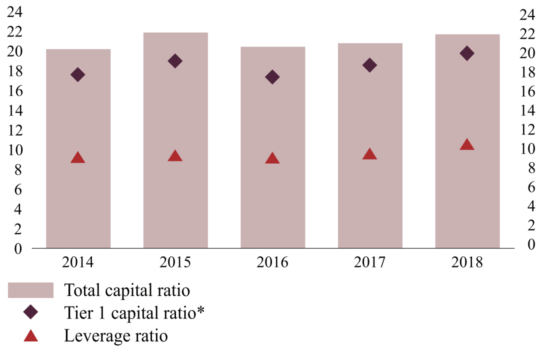
Chart 2.18
NET FLOWS OF CROSS-BORDER PAYMENTS OF FOREIGN CUSTOMERS BY PAYMENT ORIGINATOR AND BENEFICIARY BANK COUNTRY
(in 2018; quarterly data; billions of euro)



Capitalisation

Overall, the capital ratios of credit institutions continue to improve (see Chart 2.19). The capitalisation level is overall high and significantly exceeds the minimum capital requirements as well as the average credit institution capitalisation in the euro area (see Chart 2.20). At the end of 2018, the average total capital ratio was 21.7% {21.0%} on a consolidated basis, including the CET1 ratio which stood at 20.3% {19.0%}. The average leverage ratio of credit institutions is also high (10.5% at the end of 2018), more than three times exceeding the minimum threshold of 3% recommended by the Basel III standards.

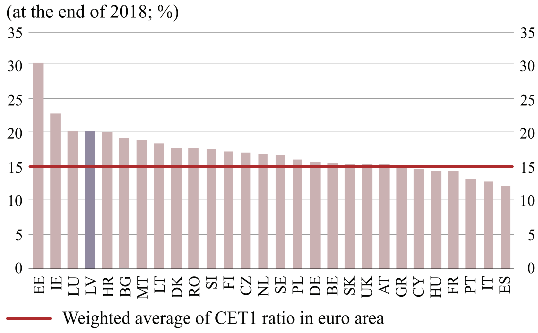
Chart 2.19
DEVELOPMENT OF CAPITAL RATIOS AT THE GROUP LEVEL
(%)



* CET1 ratio of all credit institutions equals Tier 1 capital ratio.

The quality of the credit institutions' capital is improving, and the share of the Tier 1 capital continues to expand. At the end of 2018, CET1 constituted 90.8% {89.1%} of the total capital. Credit institutions strengthen their capital primarily by reinvesting their earnings. The role of subordinated deposits in strengthening the capital is declining, and the amount of the subordinated deposits attracted over 2018 is insignificant.

Chart 2.20
CET1 RATIOS OF CREDIT INSTITUTIONS ON A CONSOLIDATED BASIS IN EU COUNTRIES
(at the end of 2018; %)



In 2018, the dynamics of capital ratio components was mostly influenced by one-off factors[59], primarily by lower business volumes of the credit institutions servicing foreign customers, which lead to a decrease in the RWA of those credit institutions and a rise in their capital ratios (see Chart 2.21). In 2018, the capital and RWA of the largest credit institutions increased slightly in absolute terms, and their capitalisation ratios were

[59] The Latvian subsidiary of the Nordic banking groups had a high level of capitalisation before it carried out a pre-planned capital reduction in order to optimise the capital structure within the group. Similar capital reduction was carried out by two Latvian subsidiaries of the Nordic banking groups also in 2016 and 2017.

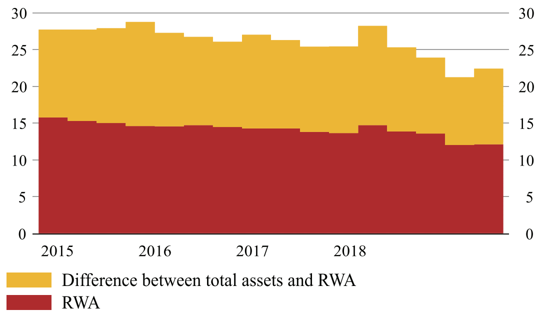
stable (see Chart 2.22). Credit institutions partially invested their profits in their capital, thus strengthening it further in 2018. With lending developing at the current pace and the domestic economic growth continuing, credit institutions' capitalisation is expected to remain high. The increase in capitalisation is unlikely to be fast as credit institutions may channel their available financial resources to lending, thereby increasing their RWA. Moreover, taking account of the high level of capitalisation, several credit institutions might partly or fully distribute their profits in dividends. The total amount of capital is expected to decline in absolute terms in 2019 on account of the transfer of capital of Luminor Bank AS to Estonia and the credit institution becoming a branch of the Estonian Luminor Bank AS. With profitability prospects deteriorating, several credit institutions, mainly those servicing foreign customers, are facing higher risks of decreasing capitalisation. As the credit institutions are launching new business lines, their capitalisation may also decline due to higher RWA.

In 2019, the total weighted average capital requirement for credit institutions increased to 14.7% (see Chart 2.23). The above increase was mainly due to the revision of the individual requirements set by the supervisor and the Latvian Luminor Bank AS becoming a branch of the Estonian Luminor Bank AS[60]. Currently, four O-SIIs are identified in Latvia: Swedbank AS, AS SEB banka, AS Citadele banka and AS Rietumu Banka, with their O-SII buffer requirements[61] set at 2.00%, 1.75%, 1.50% and 1.25% of RWA respectively. The O-SII buffer requirement for the Estonian Luminor Bank AS (2% of RWA) is set at the group level and also applies to its Latvian branch.

The results of the macroeconomic stress test and credit risk sensitivity analysis conducted by Latvijas Banka **suggest that credit institutions' capacity to absorb a potential rise in credit risk caused by external and internal shocks is quite high overall, but resilience of some smaller and less capitalised credit institutions against shocks continues to decrease and can be viewed as insufficient** (see Box 8).

[60] With the Latvian Luminor Bank AS becoming a branch in 2019, it is no longer subject to the O-SII buffer requirement and the individual requirement set by the supervisor.
[61] Effective as of 30 June 2019.

Chart 2.21
RWA AND ASSETS
(%)



Changes in the capital and RWA in the third and fourth quarters of 2017 are related to the establishment of Luminor Bank AS, while those in the third quarter of 2018 are related to the cancellation of the ABLV Bank, AS licence.

Chart 2.22
TIER 2 CAPITAL AND CET1 RATIOS OF CREDIT INSTITUTIONS ON A CONSOLIDATED BASIS
(%)

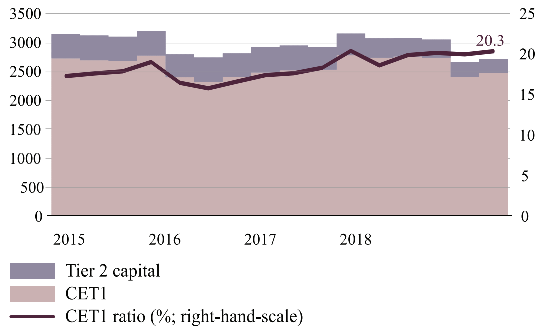
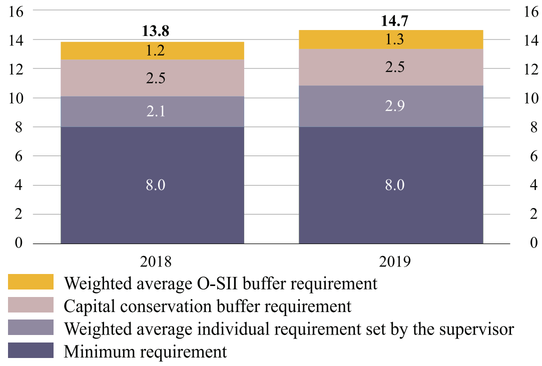


Chart 2.23
TOTAL CAPITAL REQUIREMENTS FOR CREDIT INSTITUTIONS IN LATVIA
(%)



No credit institution in Latvia has additional Tier 1 capital instruments. Thus, CET1 capital shall be used to fulfil the Tier 1 capital requirements. The individual requirement set by the supervisor and the O-SII buffer requirement have been weighted against the credit institution' RWA.

BOX 8. CREDIT RISK AND MARKET RISK SHOCK-ABSORPTION CAPACITY

Latvijas Banka conducts sensitivity analysis[62] and macroeconomic stress tests[63] of credit institutions on a regular basis. Assessment is based on the consolidated data of credit institutions as at the end of December 2018. The macroeconomic stress test covers the period up to the end of 2019. The thresholds for the 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%[64]. A failure to meet any of the minimum capital requirements is automatically considered a failure to meet overall capital requirements. The stress test assumes 60% provisions for loans past due over 90 days and 20% provisions for unlikely-to-pay loans.

The macroeconomic stress test was carried out to evaluate the capability of credit institutions to absorb a potential increase in credit risk and market risk caused by the deterioration of the external and domestic macrofinancial environment. The main risks under the stress scenario are a significant weakening of external demand and growing uncertainty which could have a negative effect on the domestic economic growth. The capacity of credit institutions to absorb potential losses associated with the loan portfolio of customers from CIS countries has also been modelled. Tables 2.1 and 2.2 provide a summary of the stress test parameters.

The stress test baseline scenario is based on Latvijas Banka's GDP forecast of June 2019. According to the forecast, in 2019 Latvia's GDP growth will amount to 2.9% (seasonally adjusted data). The following assumptions have been used in the baseline scenario with regard to foreign investment: in 2019, PD for loans granted to foreign customers is 5%, whereas LGD stands at 75% (see Table 2.1). The baseline scenario does not include market risk shocks assuming that market risks have been priced in.

Considerable deterioration of the external macrofinancial environment has been modelled under the **stress scenario.** The external shocks can affect Latvia's economy first, via the foreign trade channel (assuming a 15% external demand shock under the stress scenario); second, via the investment channel (assuming a 35% decline in investment and a subsequent 30% fall in private consumption). The scenario assumes that the above shocks affect the Latvian economy in the first quarter of 2019. The expected loss rate for loans to customers from the CIS countries and claims on MFIs of the CIS countries is 15% under the stress scenario.

Changes in Latvia's real GDP in the stress scenario were evaluated employing the macroeconomic model of Latvijas Banka. Under the stress scenario, the impact on the quality of loans granted to domestic customers has been estimated by using the credit risk model of Latvijas Banka and employing the assumptions about loan migration to and from the unlikely-to-pay loans category[65].

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[62] 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. It is assumed that a credit institution has to build provisions in the amount of at least 60% for the over 90 days past due loan portfolio and build additional provisions totalling 60% of the increase in the loans past due over 90 days; restructured loans which are not past due over 90 days have to be provisioned by at least 20%. Credit institution capital and RWA are reduced by the amount of the additional provisions.

[63] Macroeconomic stress tests measure the resilience of Latvia's credit institutions to various adverse macroeconomic shocks whose materialisation is plausible, yet their probability is low. 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.

[64] A characteristic feature of the capital structure of Latvian credit institutions is the fact that the Tier 1 capital requirement is met with CET1 capital. Thus, compliance with the 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).

[65] For the description of the assumptions, see Latvijas Banka Financial Stability Report, 2017, pp. 36 and 37.

Table 2.1
PARAMETERS OF MACROECONOMIC STRESS TEST
(%)

Credit risk parameters and macroeconomic shocks	Baseline scenario	Stress scenario
Latvia		
Foreign demand shock	–	15
Investor confidence (investment) shock	–	35
Consumer confidence (private consumption) shock	–	30
Annual changes in Latvia's GDP in 2019	2.9	–6.1
3-month EURIBOR[66]	–0.276	–0.276
Probability for a performing loan or a loan past due less than 90 days to become a loan past due over 90 days within a period of one year	–	6.1
Probability for an unlikely-to-pay loan to become a loan past due over 90 days within a period of one year	–	24.4
Increase in the share of loans past due over 90 days in the domestic customers' loan portfolio at the end of 2019[67] (percentage points)	–0.1	6.8
Loans to customers from CIS countries and claims on MFIs		
PD	5	20
LGD	75	75
Expected loss rate	3.75	15

The stress test assumed that in the case of loans to Lithuanian and Estonian borrowers the credit risk developed in the same way as that of the domestic loan portfolio[68]. The losses stemming from loans to customers from the CIS countries and claims on MFIs were estimated based on the parameters assumed in the scenarios. To reflect the potential losses arising from investment in the CIS countries more accurately, the amount of investment made in these countries was adjusted according to the data provided in country risk reports.

Latvijas Banka continues to improve its framework for macroeconomic stress testing: the market risk stress test has been incorporated into the macroeconomic stress test. Along with incorporating the market risk stress test, investment in securities has been transferred from the credit risk stress test framework to the market risk stress test framework.

The foreign investment shock has been distributed between credit risk and market risk. For market risk, a global market shock scenario has been modelled under the stress scenario (see Table 2.2) where substantial shocks to the euro and US dollar benchmark rates, risk premia of the US dollar, Russian rouble, government, non-financial corporations and financial institutions (depending on their credit rating) and shocks to stock value have been applied.

In the stress test market risk component, data on the securities portfolio of each credit institution, including securities measured at fair value through profit or loss, securities measured at fair value through other comprehensive income and securities measured at amortised cost, have been used. According to the accounting standards, securities measured at amortised cost are not subject to the impact of market fluctuations on capital; however, under this methodology market shocks are also applied to the portfolio

[66] Annual average of 3-month EURIBOR futures rates; Bloomberg, 11.02.2019.
[67] Loans that have migrated from the category of "performing loans or loans past due less than 90 days" and from the category of "unlikely-to-pay loans" to the category "loans past due over 90 days" have been added up.
[68] Without modelling their changes in the unlikely-to-pay loans category. Hereinafter, foreign investment shall be investment outside Latvia, Lithuania and Estonia.

of debt securities measured at amortised cost. The purpose of the above is to assess the overall economic effect of changes in the securities portfolio market value on capital, assuming that eventually it will be necessary to recognise their fair value.

Credit institution securities portfolios mostly do not differ at individual and group levels; however, some credit institutions have subsidiaries with notable securities portfolios or investment in company share capital or real estate funds. At individual credit institution's level, securities portfolio data are available as per International Securities Identification Number (ISIN); however, at group level the securities portfolio is extrapolated assuming that the stock and bond portfolio is similar to that of a credit institution's level. The difference between a portfolio of a credit institution and that of a credit institution group mostly is represented by investments in equities, funds and other instruments where equivalent return shock is applied under the stress test methodology. Bond portfolios are typically held on the bank's own books.

Each credit institution's bond portfolio securities, accounting for most of the aggregate credit institution securities portfolio, have been grouped by major risk factor, e.g. euro area and US bond rates of different maturities, credit rating, sector, according to expert assessment. The modified duration of each risk factor group of a bond portfolio is set using Thomson Reuters data or, in case of lack of data, using time to maturity as an approximation. The modified duration of each bond subset is used to calculate the impact of the interest rate shock scenario. The foreign exchange risk is not incorporated in the valuation effect, and the shock scenario is applied to the open foreign exchange position in US dollars and Russian roubles. Return shock has been applied to stocks, funds and other investment.

In the stress scenario, the market risk shock parameters were set mostly using the historic monthly changes in the index corresponding to each risk factor (market data since 2006 were used) and keeping current risk factor weights in the aggregate credit institution securities portfolio constant. 1% of cases or months with the largest estimated hypothetical losses of the credit institution aggregate portfolio have been assessed. Average values of the identified cases have been used in the scenario. In view of the fact that the stock and fund portfolio of Latvian credit institutions is rather small and there is a lack of market data about it, no shock calibration methodology has been developed: in the shock scenario, a simple percentage fall in the portfolio value has been assumed, corresponding to 1% of the most adverse changes in the stock indices value since 2006.

According to the stress test baseline scenario, the quality of the domestic loan portfolio of credit institutions is expected to continue improving gradually in 2019. At the same time, an increase in loans past due is anticipated in the foreign customers' loan portfolio. Under the baseline scenario, the estimated losses (in the form of the necessary additional provisions) could reach 80 million euro or 0.4% of the total credit institution assets. The losses in the baseline scenario arise due to the above additionally required provisions for loans to customers from the CIS countries and the fact that in some credit institutions the current level of provisions is below the provisioning ratio used in the stress test.

Table 2.2

PARAMETERS OF MARKET RISK STRESS TEST UNDER THE STRESS SCENARIO

Benchmark yield curve shock		Original value	Stress scenario (change; in basis points)
Euro	1 month	–0.6%	+15
	3 months	–0.8%	+24
	6 months	–0.7%	+16
	1 year	–0.6%	+18
	3 years	–0.5%	+11
	5 years	–0.2%	–5
	10 years	0.3%	–11
US dollars	1 month	2.3%	–4
	3 months	2.3%	–2
	6 months	2.5%	+5
	1 year	2.7%	+24
	3 years	2.8%	+3
	5 years	2.8%	–17
	10 years	3.0%	0

Risk premium* shock	Original value	Stress scenario (change; in basis points)
Latvian central government	0.8%	+160
Central government (AAA–BBB–)	1.7%	+80
Central government (<BBB–)	4.7%	+195
Financial institutions (AAA–BBB–)	1.5%	+172
Financial institutions (<BBB–)	1.9%	+879
Non-financial corporations (AAA–BBB–)	2.3%	+102
Non-financial corporations (<BBB–)	6.3%	+258
Exchange rate shocks ("+" means appreciation of the euro vis-à-vis the other currency)		
US dollar	1.13	+8.6%
Russian rouble	75.6	+9.6%
Other market shocks		
Stocks, funds and other instruments (excluding financial derivatives)		–16%

* The spread of securities yields vis-à-vis the government benchmark. No risk premium shock is applied to German and US government bonds.

Under the stress scenario, the share of loans past due over 90 days would expand by 6.8 percentage points to 9.4% in the domestic loan portfolio by the end of the fourth quarter of 2019. Table 2.3 features the aggregated stress test results. In the event of the stress scenario materialising, the estimated total losses (after deduction of the already accumulated provisions) could reach 757.2 million euro or 3.5% of the total credit institution assets. Not taking into account the already accumulated provisions, the losses would reach 856.3 million euro or 4.0% of the total credit institution assets. Losses arising from market risk amount to 12.0%, while those from investment in CIS countries stand at 15.3% of total losses. The remaining 72.8% account for losses arising from the domestic loan portfolio.

Three credit institutions would face problems in complying with the minimum capital requirement with regard to Tier 1 capital owing to shocks. Moreover, two of them would also find it difficult to comply with the requirement regarding other types of capital. For one of these credit institutions, Tier 1 capital and CET1 capital would become negative.

Table 2.3

AGGREGATED MACROECONOMIC STRESS TEST RESULTS FOR THE STRESS SCENARIO

Indicator	Stress test result
Estimated losses (millions of euro)	757.2
Additionally required provisions (% of total credit institution assets)	3.5
Total capital ratio	
Number of credit institutions with the total capital ratio below 8%	2
Additionally required capital (millions of euro)	34.3
Assets of credit institutions with the total capital ratio below 8% (% of total credit institution assets)	<3.6
Tier 1 capital ratio	
Number of credit institutions with Tier 1 capital ratio below 6%	3
Additionally required capital (millions of euro)	50.1
Assets of credit institutions with the total capital ratio below 6% (% of total credit institution assets)	<5
CET1 capital ratio	
Number of credit institutions with CET1 capital ratio below 4.5%	2
Additionally required capital (millions of euro)	40.1
Assets of credit institutions with the total capital ratio below 4.5% (% of total credit institution assets)	<3.6

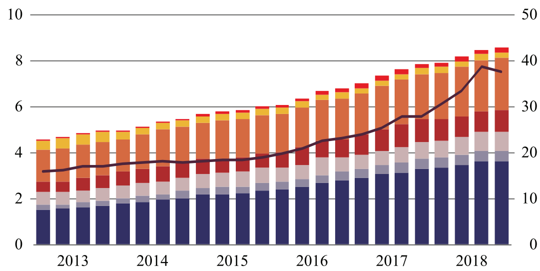
Macroeconomic stress test results suggest that the resilience of credit institutions (including major lenders) to potential shocks still remains good overall and is expected to be high also in the future, given the NPL decrease in the domestic loan portfolio. However, the capacity of several credit institutions, mostly those servicing foreign customers, to absorb the potential increase in credit risk caused by external and internal shocks weakened in 2018. This was largely on account of the changes in the credit institutions' loan portfolio quality and the low capitalisation level of some credit institutions. Consequently, the capacity of credit institutions servicing foreign customers to absorb potential losses stemming from the materialisation of Russia- and other CIS countries- related risks has declined, and some credit institutions have to strengthen their Tier 1 and CET1 capitals.

The results of the sensitivity analysis also suggest that credit institutions' capacity to absorb the potential increase in credit risk remains generally high. On a consolidated basis, the major lenders whose share in the domestic credit market accounts for 94%, without raising any additional capital, would be able to absorb a potential rise in credit risk resulting in the share of loans past due over 90 days expanding by 10.0 percentage points. At the same time, some credit institutions servicing foreign customers saw a further weakening of the credit risk shock-absorption capacity due to a deterioration of the credit portfolio quality and losses incurred in previous years resulting in a fall in the capital of these credit institutions.

3. DEVELOPMENT OF THE NON-BANK FINANCIAL SECTOR

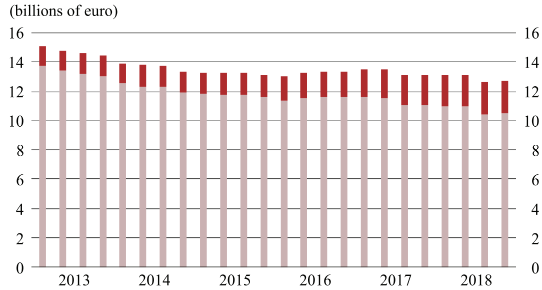
The NBFS continued to develop rapidly in 2018. The NBFS assets grew by 8.7%, standing at 8.6 billion euro at the end of the year, while their ratio to GDP reached 29.1%. The expansion of the NBFS was mostly driven by the increase in the assets of leasing companies and the state funded pension scheme. At the same time, the ratio of NBFS assets to total assets of the credit institution sector went up to 37.6% (30.7% at the end of 2017). This is mainly associated with a 19.4% decrease in the assets of credit institutions recorded in 2018 (see Chart 3.1).

Chart 3.1
NBFS ASSETS IN BREAKDOWN BY SUBSECTOR
(billions of euro)



Continuity of accessibility of NBFS services in Latvia's financial system is high as in the event of the withdrawal of a participant, the services provided by it to ensure the functioning of Latvia's financial system may be replaced by other market participants due to the relatively low market concentration. Moreover, the interconnectedness of the NBFS with credit institutions, particularly those outside the structure of the group of the credit institution, is insignificant; thus the NBFS does not represent systemic risks to the financial system.

Chart 3.2
LOANS GRANTED TO DOMESTIC HOUSEHOLDS AND NON-FINANCIAL CORPORATIONS
(billions of euro)



NBFS lending services

The role of the NBFS in lending to the economy is still growing. At the end of 2018, the outstanding amount of loans granted to domestic households and non-financial corporations by NBFS lending service providers corresponded to 17.5% of the total outstanding amount of loans granted to domestic households and non-financial corporations by credit institutions and NBFS lending service providers (the level is two times higher than the one recorded at the beginning of 2013; see Chart 3.2).

In 2018, the outstanding amount of loans granted to domestic households and non-financial corporations by NBFS lending service providers grew by 4.4%[69], reaching 2.2 billion euro (including loans by leasing companies accounted for 76.9%). Loans to households granted by leasing companies increased by 5.9%, while loans granted to non-financial corporations rose by 7.0% over the year. The outstanding amount of loans granted to domestic households by the NBFS (including payday loan companies) grew by 18.9%. Overall, the stimulus for granting loans by NBFS lending service providers came from the robust economic growth, the absorption of the resources of EU structural funds, the household income growth, with net wages increasing by 9.7% over the year, the decline in unemployment (from 8.7% to 7.4%) as well as the intensive marketing activities implemented by the NBFS segment.

[69] For the purpose of analysis, the growth rates of loans have been adjusted so that the effect resulting from the reclassification of assets for the previous periods in statistical reports by leasing companies is excluded.

Other NBFS financial services

Other NBFS financial services are primarily related to private savings (private and state-funded pension plans, investment funds, life insurance with savings), risk insurance as well as the execution of payments. In 2018, the assets of other NBFS service providers increased by 9.1%, amounting to 5.2 billion euro at the end of the year (like in 2017 the assets corresponded to 60.1% of the total NBFS assets).

The year 2018 was unfavourable for private pension plans, investment funds and investment plans of the state-funded pension scheme (the second pillar); this was a result of economic and political shocks. In the first three quarters of the year overall, the financial market volatility showed little change as compared to the average market volatility seen in the previous years. The financial market situation escalated in the fourth quarter. Brexit-related issues, the "yellow vests" protests in France against Emmanuel Macron's tax policy and Italy's conflict with the EC about the budget deficit level for 2019 gave rise to uncertainties in Europe. At the international level, most important changes were caused by the deceleration of the global economic growth, the US-China trade tensions and the increase of the target range for the federal funds rate of the FRS four times over the year to 2.25% – 2.50%. The European stock market index STOXX Europe 600 decreased by 12.9%, while the US stock market index S&P 500 declined by 4.2% during the year. A substantial drop in prices was observed also in the market for high yield corporate bonds, with the Bloomberg Barclays Global High Yield Index falling by 4.8% in the course of the year. These developments on the European stock and bond markets pushed the return on investment of investment funds, private pension plans and the state-funded pension scheme into negative territory in 2018. Overall, the return on the portfolio of the riskiest investment plans and funds which invest in stocks and other high-risk investments declined more than that of conservative investment plans and funds which primarily invest in debt securities.

In 2018, the return of all investment plans of the state-funded pension scheme was negative, with the decrease in net assets resulting from investment and accounting for 147 million euro or 4.1% of its average net assets. This was mostly due to the stock market plunge at the end of 2018. Fundamental changes in the regulatory framework for the state-funded pension scheme were observed. As of 2018, investment managers were allowed to develop new investment plans by investing in shares and other instruments similar in terms of risk up to 75% of the gross value of the investment plan. The fixed fee that can be applied for the management of the assets of the second pillar pension scheme was lowered, and it was established that the management company may only charge performance fee if its managed pension plan's performance exceeds the result of a combination of the European stock and bond market indices.

The assets of private pension plans increased by 6.0% (to 462 million euro {436 million euro}) in 2018, although the average annual return on investment of the pension plans was –5.1% [70]. The assets grew mostly on account of contributions made by participants and employers (63 million euro and 13 million euro respectively). Contributions made by participants decreased by 6.8% in comparison with 2017. The decline resulted from the amendments to the procedure for receiving the personal income tax (PIT) relief which came into effect in 2018. Pursuant to the amendments, households may claim a refund of PIT paid on contributions to private pension funds and life insurance with savings not exceeding 4000 euro or 10% of the person's wage before taxes per year. This limit reduced the willingness of high wage households to save for pensions.

Employer contributions to private pension plans increased by 25.1% in 2018. Thus, employers helped employees to make old age savings and reduced political and demographical risks faced by the participants of the first and the second pillar pension scheme. Employers were increasingly motivated to make contributions to the third pillar pension scheme for their employees by the maximum permissible amount of the tax relief (10%), which does not overlap with the maximum permissible amount of employee contributions (4000 euro). Amendments to the Law on Personal Income

[70] The return has been calculated against the average net assets of pension plans, excluding the fees withheld by the pension funds and the FCMC.

Tax stipulate that life insurance contracts with savings have to be concluded for 10 years instead of the five-year period previously specified for claiming personal income tax refunds. The total amount of gross premiums (with savings) written in 2018 reached 19 million euro, representing a 18.3% decline over 2017.

The total number of participants of the third pillar pension scheme increased by 6.1% in 2018 (including active participants who have made contributions to private pension plans over the last year account for 53%). As the share of active participants dominates and employer contributions increase notably, a rise in the net assets of private pension plans can be expected also in the coming months. Overall, only 24% (22% in 2017) of the households participating in the second pillar pension scheme make contributions also to the pension capital of the third pillar of the pension scheme. Thus, households are highly unlikely to maintain their current consumption level when their members retire unless they make additional savings in other instruments.

Latvia's market of investment funds is in decline. The net assets of Latvia's investment funds have decreased by 30% (down to 203 million euro) since 2010. The fragmentation of the market and the low level of assets of investment funds do not allow to attract large investors and develop this market. Therefore, the consolidation and liquidation of investment funds took place in 2018, with their number decreasing from 27 to 23. Considering also the tightening competition of global investment funds, including exchange-traded funds, no substantial expansion of Latvia's market of investment funds is expected in 2019 either.

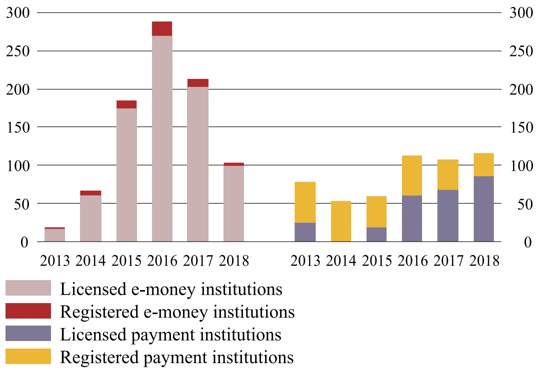
In 2018, with the amount of gross premiums written decreasing by 6% and the amount of gross compensations remaining at the level of 2017, the loss of life insurance corporations registered in Latvia amounted to 3.7 million euro (before taxes) in 2018. As to life insurance with savings, the amount of gross premiums written declined notably. This is likely to be attributable to the above amendments to the procedure for receiving PIT refunds and also the unit-linked life insurance contracts since the fourth quarter of 2018 saw negative financial market performance. Meanwhile, the loss from the non-technical result, largely caused by investment dynamics, pushed up the total losses before taxes by 1.7 million euro. As the gap between gross premiums written and gross compensations having emerged due to amendments to the procedure for receiving PIT refunds is expected to persist at least until 2022 when the contracts concluded in 2017 expire, the life insurance segment could record a lower solvency ratio averaging 121.2% at the end of 2018.

Non-life insurance corporations registered in Latvia recorded a profit of 18 million euro (before taxes) in 2018. The largest part of the profit (14.3 million euro) was gained as a result of the technical calculation. Overall, the technical result of non-life insurance activities is stable and does not differ significantly from the level registered in 2017. The level of gross premiums written and gross compensations grew proportionally during the year, representing an increase of 19.0%. The non-technical result mostly comprising investment activities raised profit (before taxes) by 3.7 million euro. The solvency ratio also remains high, standing on average at 128.7% at the end of 2018.

In 2018, the development of non-bank payment services was affected by that of credit institution payment services, the effective higher standards of due diligence and transaction monitoring as well as the amendments to the Law on Payment Services and Electronic Money. Over the past few years, credit institutions have been increasingly active in developing mobile application services, offering contactless credit cards and starting to use Latvijas Banka's instant payment service successfully, thus tightening competition among e-money institutions and payment institutions.

In addition to higher standards of due diligence and transaction monitoring, both payment institutions and e-money institutions also face challenges posed by the amendments to the Law on Payment Services and Electronic Money made in 2018. The amendments introduced a clearer procedure for licensing payment institutions and e-money institutions, the maximum amount (50 euro) for unauthorised payments, strong customer authentication requirements, with at least two independent security elements applied, and other changes. These amendments to the Law were made pursuant to the Directive of the European Parliament and of the Council on payment services in the internal market [71], which aims to develop innovative, secure and easy-to-use digital payment services in the EU. Overall, both the improved legal framework and the development of credit institution payment services were reflected in the total value of payments made by e-money institutions, which decreased by 51% in 2018 and raised the value of payments made by customers of payment institutions by 8% (see Chart 3.3).

Chart 3.3
VOLUME OF OUTGOING PAYMENTS OF CUSTOMERS DURING THE YEAR
(millions of euro)



[71] Directive (EU) 2015/2366 of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market, amending Directives 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation (EU) No 1093/2010, and repealing Directive 2007/64/EC.

4. SYSTEMICALLY IMPORTANT PAYMENT AND SETTLEMENT SYSTEMS

Secure and efficient financial market infrastructure, i.e. payment and securities settlement systems, is one of the most important preconditions of financial stability. Payment systems enable the public to make secure and efficient cashless payments, thereby fulfilling a significant condition for economic growth. Overall, the financial market infrastructure is necessary for the settlement of the Eurosystem's monetary policy operations as well as the settlement among financial market infrastructure participants, i.e. credit institutions. Any operational disruptions may not only negatively affect the financial market infrastructure participants but also result in a wider distribution of risks. Financial market infrastructure may be both the source of financial shocks (a decrease in liquidity or a loss of funds) and, in the case of high mutual connectivity, the channel through which risks can spread to local or international markets, thereby increasing the financial stability risk.

Latvijas Banka, in the capacity of a participant in the Eurosystem, performs the oversight of the financial market infrastructure in effort to ensure its secure and efficient operation. **In Latvijas Banka's assessment, in 2018 Latvia's financial market infrastructure operated securely and efficiently and the risks related to its operation were adequately managed and contained so that their impact on the operation of the payment and settlement systems and their participants would be minimal and would trigger no systemic disruptions.**

The oversight of the financial market infrastructure mainly focuses on systemically important payment and securities settlement systems ensuring the settlement of the Eurosystem's monetary policy operations, the settlement among financial market participants as well as the final settlement of routine payments by the public.

At the international level, the oversight of financial market infrastructures is conducted according to the PFMI[72] in order to make sure that the risks related to the operation of the financial market infrastructures are identified and appropriately managed and, where necessary, provide recommendations for enhanced risk containment measures. The operation of financial market infrastructures is subject to various risks which may affect the infrastructures' ability to deliver services as expected or may cause significant losses to the financial market infrastructure itself or its participants (see Chart 4.1). Each risk, either alone or in combination with other risks, may trigger a systemic risk, thereby posing threats to the financial stability in the country.

Chart 4.1
THE KEY RISKS FACED BY FINANCIAL MARKET INFRASTRUCTURE

Systemic risk
The risk that the inability of one or more participants to meet their obligations when due may adversely affect other participants' ability to meet their obligations, thereby exerting a negative impact on the financial market operation. The risk that one financial market infrastructure may trigger disruptions to the operation of other financial market infrastructures, where their operation depends on the disrupted financial market infrastructure. Consequently, the operational disruptions to the affected financial market infrastructures have an impact on a wide range of participants and the financial market operation in general.

Legal risk
The risk that unexpected application of a law or another legislative act may result in a loss.

Credit risk
The risk that a counterparty, whether a participant or other entity, may be unable to meet fully its financial obligations.

Liquidity risk
The risk that a counterparty, whether a participant or other entity, may have insufficient funds to meet fully its financial obligations when due.

Operational risk
The risk that the disruptions triggered by the deficiencies in information systems or internal processes, failures by employees or management or disruptions from external factors may affect the availability of the payment or settlement system services.

In addition to the international practice, the systemically important financial market infrastructures of the euro area are obliged to ensure compliance with the PFMI: the Eurosystem has laid down the requirements for systemically important payment systems in the SIPS Regulation[73], and the requirements for the financial

[72] Bank for International Settlements and International Organization of Securities Commissions. *Principles for financial market infrastructures.* April 2012.

[73] Regulation of the European Central Bank (EU) No 795/2014 of 3 July 2014 on oversight requirements for systemically important payment systems (ECB/2014/28) (hereinafter, the SIPS Regulation), whereby the Eurosystem included the PFMI in its oversight framework.

market instruments' settlement systems are stipulated in the CSDR[74].

Two financial market infrastructures are systemically important for Latvia's financial market: TARGET2-Latvija and Latvia's securities settlement system operated by Nasdaq CSD SE (hereinafter, Nasdaq CSD). Within the Eurosystem's oversight framework, both systems have been assessed as compliant with the requirements of the SIPS Regulation and the CSDR respectively. Overall, the risk assessment may only change in case of significant operational changes to the respective system. In that case, the systems will be reassessed, taking account of the system updates and legislative amendments. However, the liquidity and operational risk assessment may also change depending on the system's performance indicators, i.e. the value of payments processed in the system, the liquidity available for settlement and the system's business continuity. Therefore, the liquidity risk faced by the system participants and the operational risk faced by the system operators should be revised on a regular basis, taking account of the respective system's performance indicators. In 2018, Latvijas Banka performed the liquidity and operational risk assessment for TARGET2-Latvija and Nasdaq CSD. According to the assessment, the above risks remained low in these systems, and no additional risk containment measures were necessary. TARGET2-Latvija and Nasdaq CSD ensured efficient and secure payment and settlement environment to their participants and the entire financial system, and their smooth operation facilitated the financial stability.

TARGET2-Latvija

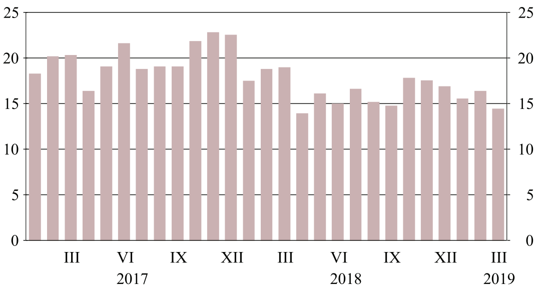
TARGET2, operated by the Eurosystem, was one of the world's largest payment systems in 2018. Latvijas Banka continued to maintain TARGET2-Latvija, one of the 25 TARGET2 component systems, enabling the settlement of the Eurosystem's monetary policy operations, interbank settlement of large-value payments, settlement of urgent customer payments in euro and final settlement in euro for the Electronic Clearing System of Latvijas Banka (EKS), Nasdaq CSD and the payment card processing system of SIA Worldline Latvia.

The total value of payments processed in TARGET2-Latvija in 2018 amounted to 199.5 billion euro, representing a decrease of 17% in comparison with 2017 (see Chart 4.2 for the monthly value dynamics of payments). In 2018, the daily average value of payments processed in TARGET2-Latvija amounted to 782.4 million euro (in the first quarter of 2019, the daily average was 737.6 million euro).

In order to assess the liquidity risk in TARGET2-Latvija, Latvijas Banka performed analysis of data by means of the payment and settlement system simulator (Bank of Finland – Payment and Settlement System Simulator 2; BoF-PSS2), developed by Suomen Pankki – Finlands Bank.

To assess the liquidity risk in TARGET2-Latvija, Latvijas Banka evaluated the value of the settlement funds necessary for the execution of all payments submitted during the day as compared to the liquidity available in the system. The following indicators were assessed: the lower bound of the settlement funds, i.e. the value of the settlement funds ensuring the execution of all payments by the end of TARGET2-Latvija business day at the latest; the upper bound of the settlement funds, i.e. the value of the settlement funds ensuring an immediate execution of all submitted

Chart 4.2
VALUE OF PAYMENTS EXECUTED IN TARGET2-LATVIJA
(billions of euro)



payments; the liquidity available in the system, i.e. the total value of funds of the system participants' credit institutions and the Treasury in TARGET2-Latvija at

74 Regulation (EU) No 909/2014 of the European Parliament and of the Council of 23 July 2014 on improving securities settlement in the European Union and on central securities depositories and amending Directives 98/26/EC and 2014/65/EU and Regulation (EU) No 236/2012.

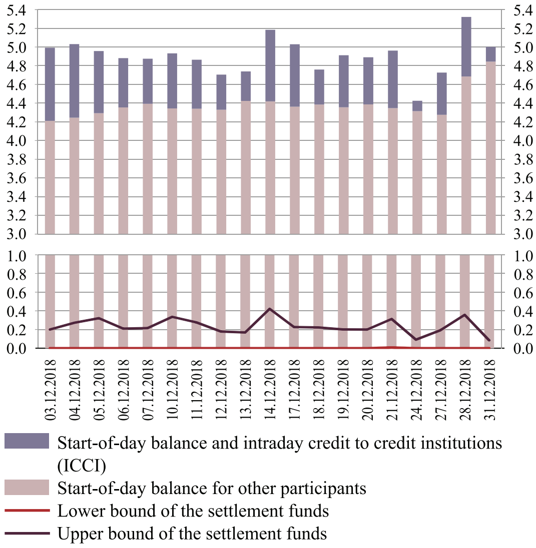
the beginning of a business day, also including intraday credit granted to credit institutions, and the value of the settlement funds necessary for the execution of the payments submitted by Latvijas Banka. Where the liquidity available in the system exceeds the upper bound of the settlement funds, the system's liquidity risk is deemed to be low. Where the liquidity available in the system is lower than the upper bound of the settlement funds, while exceeding the lower bound of the settlement funds, the system's liquidity risk is deemed to be medium. Meanwhile, where the liquidity available in the system equals to or is lower than the lower bound of the settlement funds, the system is exposed to high liquidity risk.

For its data analysis, Latvijas Banka used December 2018 data, since, compared to other months of 2018, December saw the smallest value of excess settlement funds defined as the spread between the liquidity available in TARGET2-Latvija and the total value of payments executed in TARGET2-Latvija. Therefore, the results of the December data analysis allow drawing conclusions about the liquidity risk throughout 2018.

The simulation results showed that the daily upper bound of the settlement funds amounted to 234.8 million euro on average or 4.79% of the liquidity available in TARGET2-Latvija. On none of the days in December did the upper bound of the settlement funds exceed 8% of the liquidity available in the system. Meanwhile, the lower bound of the settlement funds stood at 0.00% of the liquidity available in TARGET2-Latvija on all days in December, except for 21 December when the lower bound of the settlement funds reached 7 million euro or 0.14% of the liquidity available in TARGET2-Latvija, indicating that the participants of TARGET2-Latvija would be able to execute their payments until the end of the day by using only the settlement funds received from other participants. The liquidity available in TARGET2-Latvija in 2018 significantly exceeded the upper bound of the settlement funds (see Chart 4.3). Thus, **the liquidity risk of TARGET2-Latvija remained low**.

To assess the operational risk, Latvijas Banka evaluated the impact of the system's operational disruptions on the system's operation and its availability throughout

Chart 4.3
LIQUIDITY RISK ASSESSMENT IN TARGET2-LATVIJA
(billions of euro)



the year, since the operational disruptions to the system may affect the smooth functioning of the system's participants and other payment and securities settlement systems and cause systemic risk.

Since TARGET2-Latvija is a component system of TARGET2 and TARGET2 technically operates as a uniform system, its business continuity is reflected by the aggregate performance indicators of TARGET2. Any incidents related to the operation of TARGET2 are managed jointly by the Eurosystem. In 2018, the availability ratio of TARGET2 stood at 99.98% (100% in 2017). The availability ratio was lower due to one incident when the installation of a new version of the single technical platform infrastructure on 19 November 2018 partly affected the transaction processing in TARGET2 resulting in a settlement delay of approximately 40 minutes. The reasons for the incident were identified and the necessary measures were taken to prevent the recurrence of such incidents. The availability ratio of TARGET2 suggests that the system is highly resilient to operational disruptions. **The operational risk remained low in TARGET2.**

Nasdaq CSD

In 2018, Nasdaq CSD was the only systemically important securities settlement system in Latvia. It was used for the mobilisation of collateral securities for both the settlement of the Eurosystem's monetary policy operations and the granting of intraday credit on the settlement accounts in TARGET2-Latvija. Meanwhile, Latvia's financial market participants used Nasdaq CSD for the settlement of mutual securities transactions, including the delivery versus payment (DVP).

The total value of the DVP of securities in Nasdaq CSD amounted to 1.24 billion euro in 2018, representing a year-on-year increase of 10.8%. In 2018, the daily value of the settlement executed by Nasdaq CSD via TARGET2 stood at 4.0 million euro on average (3.0 million euro in 2017), representing 0.5% of the daily average value of the payments processed in TARGET2-Latvija. Thus, **the liquidity risk of Nasdaq CSD cash leg settlement remains insignificant.**

To assess the operational risk, Latvijas Banka assessed the impact of the system's operational disruptions on the system's operation as well as the system's availability throughout the year, since the operational disruptions to the system may cause systemic risk. In 2018, the availability ratio of Latvia's securities settlement system stood at 99.9% (99.7% in 2017).

The longest operational disruption to Nasdaq CSD was caused by an incident at Nasdaq initial data processing centre in Vasby, Sweden, on 18 April 2018. The incident had an insignificant impact on the operation of Nasdaq CSD as it affected only a small number of securities instructions which were executed later. Meanwhile, the settlement of the Eurosystem's credit operations was not affected. However, the above incident prevented Nasdaq CSD from executing the securities settlement for 4.6 hours, i.e. 278 minutes, thus it failed to comply with the CSDR requirement to restore the provision of core services within two hours after an incident. Therefore, Latvijas Banka provided recommendations to the Supervisory Council of Nasdaq CSD SE regarding the system operator for enhanced risk containment measures. The recommendations were taken into account, thus substantially reducing the probability of similar operational disruptions in the future.

No operational disruptions were identified in Latvia's securities settlement system in the first quarter of 2019.

The availability ratio of Latvia's securities settlement system suggests that the system is highly resilient to operational disruptions. Hence, it may be concluded that the operational risk of Nasdaq CSD remained low.

Cyber resilience of financial market infrastructures

In recent years, increasing attention has been paid to cyberattacks, one of the most important operational risk elements of the financial market infrastructure. A cyberattack on a financial market infrastructure may not only significantly disrupt the operation of the infrastructure itself but, considering the mutual connectivity of the systems, it could also affect the functioning of the local financial market or even the functioning of international financial markets. Therefore, it is of utmost importance that the financial market infrastructure has an adequate level of cyber resilience to protect the infrastructure itself and the financial system as a whole.

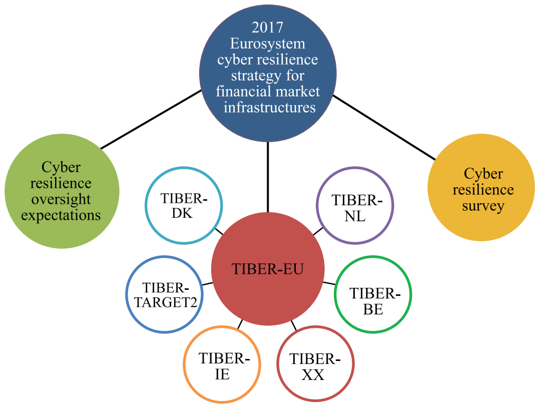
Among other operational risks of the infrastructure, the risk of cyberattacks is particularly significant considering its dynamic development and the fact that it does not arise out of deficiencies in the infrastructure itself but is posed by deliberate external attacks. The IBM X-Force Threat Intelligence Index mentioned in the Finextra report[75] suggests that the financial services sector was subject to most cyberattacks in 2018.

Under the 2017 Cyber resilience strategy for financial market infrastructures, the Eurosystem has committed to improving the cyber resilience of the euro area financial sector by improving the cooperation between the system operators, critical service providers and responsible authorities and thereby increasing the readiness of the payment and securities settlement systems overseen by the Eurosystem's central banks to ward off cyberattacks (see Chart 4.4). Under the cyber resilience strategy, in 2018 the Eurosystem developed cyber resilience oversight guidelines for financial market infrastructures and commenced the assessment of TARGET2 compliance with those guidelines (to be completed in 2019). One

[75] *https://www.finextra.com/researcharticle/42/cyber-security-in-financial-services-orchestrating-the-best-defence-in-an-evolving-threat-landscape.*

of the most effective ways to raise the level of cyber resilience is conducting dedicated cyber resilience tests. Under the cyber resilience strategy, in 2018 the Eurosystem adopted the TIBER-EU, a framework for conducting cyber resilience tests, which will provide a uniform and standardised basis for cyber resilience testing of financial market infrastructures. Based on the TIBER-EU framework, the Eurosystem intends to perform a cyber resilience test on TARGET2 in 2019.

Chart 4.4
CYBER RESILIENCE FRAMEWORK

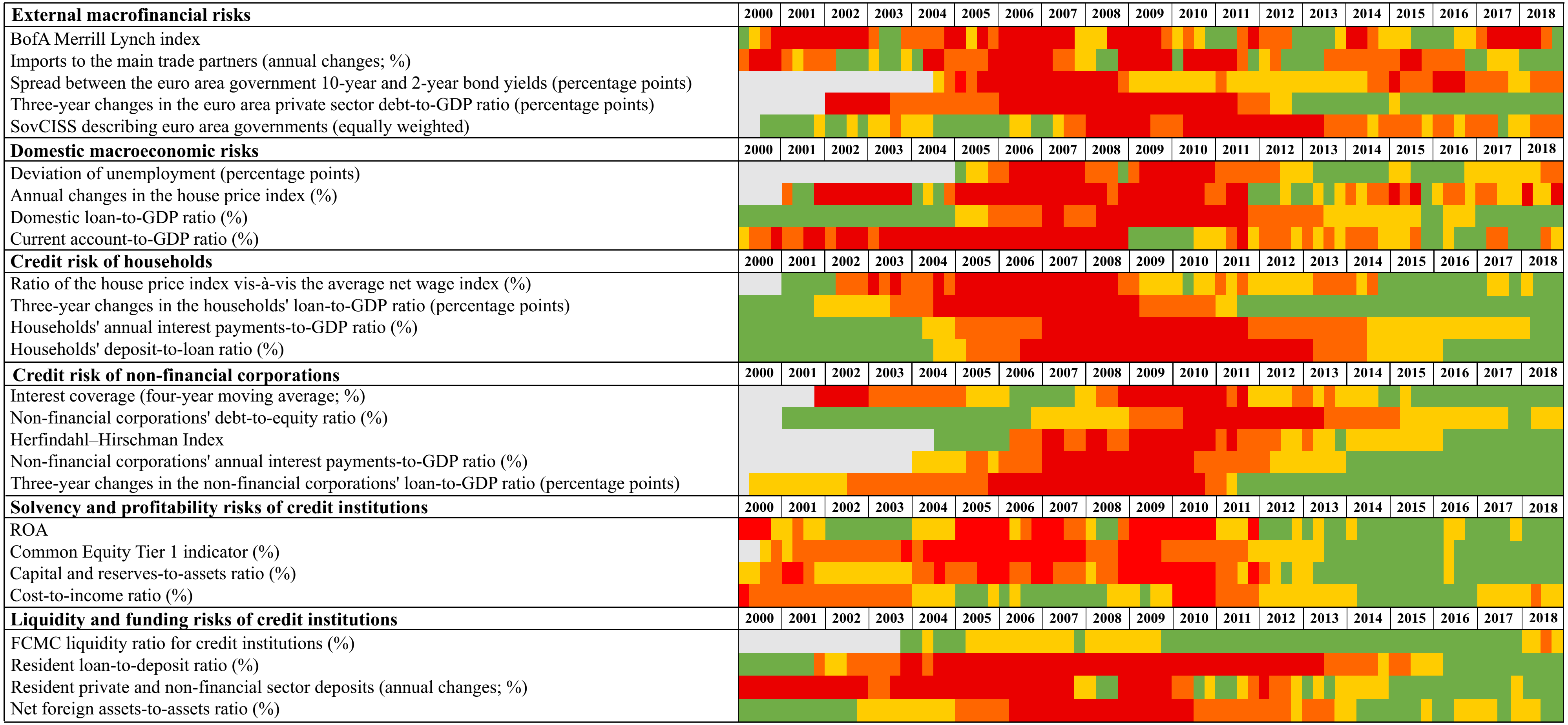


APPENDIX 1. PERFORMANCE INDICATORS OF CREDIT INSTITUTIONS

Indicator	2014	2015	2016	2017	2018	March 2019
Balance sheet items						
Number of credit institutions and subsidiaries of foreign credit institutions	26	27	23	21	20	20
Total assets (millions of euro)	30 816.1	31 937.7	29 496.1	28 387.7	22 870.5	22 933.2
Share of loans in total assets (%)	47.6	46.0	51.3	50.9	59.3	60.0
Share of deposits in total liabilities (%)	72.0	72.8	72.4	71.4	71.4	72.8
Share of liabilities to MFIs in total liabilities (%)	11.4	9.2	9.5	10.0	10.8	8.5
Domestic customers' loan-to-deposit ratio (%)	117.6	114.6	104.9	101.9	91.7	90.7
Profitability[76]						
ROE (%)[77]	10.2	10.7	13.9	6.3	9.4	11.4
ROA (%)[78]	1.0	1.2	1.4	0.7	1.2	1.2
Cost-to-income ratio (%)[79]	51.5	51.2	53.2	58.1	61.3	61.2
Capital adequacy[80]						
Own funds (millions of euro)	3 025.2	3 184.9	2 910.2	3 063.7	2 636.9	–
Common Equity Tier 1 capital/Tier 1 capital (millions of euro)[81]	2 627.5	2 764.5	2 471.0	2 732.0	2 393.9	–
Risk-weighted assets (millions of euro)	15 000.5	14 583.8	14 269.0	14 844.3	12 179.4	–
Total capital ratio (%)	20.2	21.8	20.4	20.6	21.6	–
Common Equity Tier 1 capital ratio/Tier 1 capital ratio (%)	17.5	19.0	17.3	18.4	19.7	–
Leverage ratio	9.2	9.4	9.2	9.6	10.5	–
Liquidity						
Liquid assets to total assets ratio (%)[82]	39.9	40.2	33.8	37.4	31.8	30.6
LCR (%)	–	–	342.7	313.4	252.8	284.7
NSFR (%)[83]	–	148.2	148.5	146.02	137.8	142.22
Asset quality						
Ratio of provisions for NPLs in the loan portfolio (%)	5.3	4.7	4.0	3.8	3.3	3.2
Share of loans past due over 90 days in the loan portfolio (%)	6.9	6.0	4.4	4.1	4.0	4.0
Share of NPLs in the loan portfolio[84] (%)	–	–	–	8.5	7.5	7.1
Share of NPLs in the domestic loan portfolio (%)	–	–	–	6.6	5.5	4.9

76 Profitability ratios for 2016 and 2017 are calculated based on the data provided by the FCMC at the consolidated level, whereas those for 2014 and 2015 are calculated based on the ECB's consolidated banking data. Profitability ratios for 2016 and 2017 are presented without excluding the one-off effects referred to in Chapter 2 "Development and Risks of the Credit Institution Sector".
77 Annualised profit/loss ratio to average capital and reserves of the reporting period (excluding data of foreign credit institution subsidiaries).
78 Annualised profit/loss ratio to average assets of the reporting period.
79 Cost-to-income ratio = (administrative expenses + depreciation)/(financial operating income) × 100.
80 As of 2014, the capital adequacy of credit institutions and the related indicators have been calculated in line with the methodology laid down in Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012, and cannot be directly compared with the indicators of the previous periods. Data are shown at the consolidated level.
81 Common Equity Tier 1 capital is equivalent to Tier 1 capital for all credit institutions in 2014.
82 Liquid assets = vault cash + claims on central banks and other credit institutions + central government fixed income debt securities (those having a regular, unlimited market, i.e. they can be sold in a short period of time without considerable loss or used as loan collateral).
83 Latvijas Banka's calculations.
84 Consolidated data for credit institutions subject to the consolidated supervision and individual-level data for other credit institutions and subsidiaries of foreign credit institutions.

APPENDIX 2. HEATMAP OF EARLY WARNING INDICATORS



Notes. An explanation of the heatmap methodology see in Appendix "Heatmap: analytical tool for the analysis of systemic financial stability risks in Latvia" of Latvijas Banka's "Financial Stability Report 2018". The risk level is indicated by colour. The periods for which no data are available are indicated in grey.

low	medium	medium high	high

APPENDIX 3. LATVIAN FINANCIAL STRESS INDEX