

Abbreviations

CCB	countercyclical capital buffer
GDP	gross domestic product
ECB	European Central Bank
ESRB	European Systemic Risk Board
RE	real estate
MFI	monetary financial institutions (banks and credit unions)

The publication has been prepared by the Economics and Financial Stability Service of the Bank of Lithuania. It is available in PDF format on the Bank of Lithuania's website www.lb.lt.

Unless otherwise indicated, data up to 31 January 2017 was used.

Periods indicated in chart subtitles also include end-of-period (year, quarter, etc.) data.

Decision basis for setting the countercyclical capital buffer rate

On 30 March 2017, the Board of the Bank of Lithuania took the decision to set the CCB rate at 0 per cent. The decision was based on leading and additional indicators for setting the CCB, as well as the analysis of the lending and RE markets.

Early warning indicators of the need to raise the CCB rate do not show any imbalances so far. Should the current RE market growth and credit expansion, which exceeds economic growth by several times, persist in the medium-term and signs of the build-up of cyclical risks and imbalances begin to emerge, this could negatively affect the stability of the domestic financial system. Therefore, particularly close monitoring of further RE market and credit dynamics is necessary.

Individual large loans to relatively large enterprises contributed significantly to strong annual growth of over eight per cent in borrowing within the corporate sector in 2016. Housing market activity and price growth have been intensifying (the increase in housing prices in the country recently accounted for about 5 per cent per year), the role of credit in the housing market increases; however, the sustainability of price developments has so far been ensured by strong growth in household income and the housing supply catching up with the demand. With wages and salaries increasing and low interest rates persisting, housing will continue to be relatively easily affordable; housing loan portfolios are therefore likely to expand further. On the other hand, the risk of over-indebtedness and of too strong credit growth is mitigated by the expected further growth of the domestic economy and the existing requirements of the Responsible Lending Regulations. Moreover, the indebtedness of the private non-financial sector to banks and credit unions continues to be relatively low: the ratio between the household and enterprise loan portfolio and annual GDP was 43.2 per cent at the end of 2016, a year-on-year increase of some 2 p. p.

Different early warning and other indicators suggest a low probability of a systemic crisis of banks and no imbalances in the credit and RE market so far. Lithuania's current account deficit narrowed in the third quarter of 2016, to -0.22 per cent. In addition, at the end of 2016, the MFI loan-to-deposit ratio declined somewhat (from 107.6% to 106.8%) and continued to be below its long-term average (119.0%).

* Resolution No 03-52 of the Board of the Bank of Lithuania of 29 March 2017 on the application of the countercyclical capital buffer.

** The calculation of this rate is based on deviations of the credit-to-GDP ratio from its long-term trend, taking into account, *inter alia*, the domestic credit growth and the ESRB recommendations currently in effect. For more information, see the Bank of Lithuania Occasional Paper No 5, 'Application of the Countercyclical Capital Buffer in Lithuania'.

LENDING AND REAL ESTATE MARKET DYNAMICS

The portfolio of loans to the private non-financial sector¹ continued to expand in the last quarter of 2016, and this expansion significantly exceeded nominal GDP growth. Such trends, when lending growth outpaces domestic economic development, markedly affect the credit-to-GDP ratio gap, which has been negative so far, but is decreasing fast. The portfolio of MFI loans granted to the private non-financial sector expanded by 8.2 per cent over 2016, while the nominal GDP grew by 3.3 per cent. Subject to the assessment method², the gap between the credit-to-nominal GDP ratio and its long-term trend narrowed by 4.2 p.p. and 7.2 p.p. over the year (over the third quarter of 2016 – by 0.9 p.p. and 2.0 p.p.), to - 3.1 p.p. and -13.3 p.p. respectively at the end of the third quarter of 2016. As regards likely credit market imbalances a year ago, an increase in the country's current account deficit stood out somewhat among various indicators, while, currently, attention should mainly be drawn to the difference between the credit growth rate and economic growth rate in the country of several times.

Lending both to households and enterprises grew fast in the last 12 months – the annual development of loans to these segments was similar. The portfolio of loans to non-financial undertakings expanded by 8.3 per cent, that to households – by 8.1 per cent over 2016. Lending to enterprises engaged in the RE (including construction) and the information and communication economic activities was the most pronounced. Relatively large individual transactions contributed significantly to the increase in lending to the latter sector. The opposite trend, i.e. the shrinkage of the loan portfolio, was characteristic of the energy enterprises sector: the portfolio of loans to such enterprises shrank by EUR 117.8 million over 2016. The largest contribution to growth in lending to households stemmed from loans for house purchases. The portfolio of loans for house purchase grew by 7.3 per cent over the year, by 2.1 per cent over the last quarter of 2016 alone. While loans for consumption grew fast as well (by 12.2% over the year), their impact on total credit growth was relatively insubstantial due to their significantly smaller share (11%) in the portfolio of loans to the non-financial sector than that of loans for house purchase.

¹ Statistical data from the MFI balance sheet is adjusted for the elimination of MFIs that went bankrupt from statistics and other technical factors. For more information, see Annex 2 'MFI loan portfolio adjustment for technical factors' of the December 2014 Lithuanian Economic Review (http://www.lb.lt/lithuanian_economic_review_december_2014).

² According to the ESRB recommendation (ESRB/2014/1), the Bank of Lithuania calculates the gap using two methods: the standardised Basel method, defined in the first part of the Annex to this recommendation, and by applying the credit-to-GDP forecast which is a more suitable method for the data on Lithuania. The latter differs from the standardised Basel method in that the long-term trend is calculated by extending the ratio forward using a 4-quarter weighted average. For more information, see N. Valinskytė and G. Rupeika, 'Leading Indicators for the Countercyclical Capital Buffer in Lithuania', Occasional Paper Series, Bank of Lithuania (http://www.lb.lt/leading_indicators_for_the_countercyclical_capital_buffer_in_lithuania_1).

The risk of over-indebtedness and too strong credit growth is mitigated by both the robust financial position of enterprises and strong growth in resident income, as well as the requirements of the Responsible Lending Regulations applicable to household loans. The income and operating profits of non-financial undertakings increased in the first three quarters of 2016, while the burden of their obligations and liquidity level were stable.³ Surveys conducted by Statistics Lithuania show that enterprises, facing financial difficulties, continued to decline in number.⁴ While bankruptcy proceedings were initiated against 1,910 enterprises in the first three quarters of 2016 (a year-on-year increase of 43.6 per cent) and the ratio between bankruptcy proceedings initiated and the number of enterprises almost reached the record heights observed in 2009, this increase in bankruptcy proceedings was related to changes in legal regulation rather than the deteriorating financial situation of enterprises. The forecast is that in 2017 wages and salaries will increase by somewhat less than 6 per cent and the domestic economy will grow by 2.4 per cent.⁵

Trends in the housing credit dynamics and the increasing role of credit in the housing market have recently been requiring probably the closest monitoring. Nevertheless, the flow of new housing loans has remained almost unchanged since April 2016. Should the growth rate of total credit levels remain similar, far outpacing economic development, in the medium term and lending to the private sector spread more (e.g. credit growth be determined not only by loans to a few relatively large enterprises), the signs of the build-up of cyclical risk in the financial system would become increasingly conspicuous. The need for a counter-cyclical capital buffer would increase accordingly as well.

Growth in the housing market continues: deals increase in number, prices rise faster. RE market activity in Lithuania has remained almost unchanged over the fourth quarter of 2016 year on year; however, deals posted a significant increase in number throughout 2016 (10.1%). The latest data from the beginning of the year show that activity has been intensifying further into 2017: in January this year, 10.2 per cent more of RE objects were assigned year on year; activity intensified across all market segments. The rise in housing prices accelerated at the end of 2016: according to the latest data from Statistics Lithuania, in the third quarter of 2016 the annual rise in housing prices was 5.3 per cent, a 1.9 p.p. increase quarter on quarter. The data from the RE market participant *UAB Ober-Haus* shows that, in January 2017, flats in Lithuania cost 5.6 per cent more year on year, in Vilnius – 7.1 per cent more. The trends of high activity and price rises in the housing market have so far been driven by a number of favourable factors⁶; there have been risks, however, as well⁷. For example, while wages and salaries in the country have recently been characterised by strong growth, resident income may decline significantly on account of business cycles typical of the economy, which would make it more difficult to repay a loan granted; hence, when purchasing a home, it is particularly important to responsibly evaluate one's financial situation and its likely future changes.

Although housing supply still satisfies the demand, the supply of new flats in the primary market decreased over the year. According to the data from the market participant *UAB Eika*, at the end of 2016, Lithuania's primary flat market offered 4.6 thousand flats for purchasing, a year-on-year decrease of 8.3 per cent. 5.0 thousand new flats have been purchased in Lithuania over 2016; as a result, should the demand remain the same as it was at the end of 2016, RE developers would sell the flats for sale within less than a year.

The significance of mortgage loans in the housing market has increased over the year. In the fourth quarter of 2016, slightly over 40 per cent of total housing deals were made using bank loans for house purchase. In the fourth quarter of 2016, borrowed funds accounted for 67.2 per cent of the value of total housing deals⁸. These indicators grew by 3.4 per cent and 14.8 p.p. over the year respectively.

Commercial real estate market saw no material change in the fourth quarter of 2016. According to the data from *UAB Ober-Haus*, average selling and rental prices of offices and commercial premises in Lithuania remained basically unchanged (increasing by 0.1–0.5%). This determined no change in the expected annual return on the funds invested in commercial property over the quarter: currently, the average return on investment in business centres in Lithuania is 7.6 per cent, while that on investment in commercial premises – 7.3 per cent. A future significant increase in the supply over the period of 1–2 years may determine a price decline within the office market.

³ The Income and operating profit of non-financial undertakings for the first three quarters of 2016 were higher by 1.3 per cent and 1.6 per cent year on year. The equity capital-to-assets ratio was 56.0 per cent, while the liquidity-reflecting ratio between short-term assets and short-term liabilities was 153.2 per cent. Both indicators remained almost unchanged over the year.

⁴ In January 2017, only 7.2 per cent of enterprises engaged in industrial activities claimed that they were facing financial difficulties (a year-on-year decrease of 2.1 p.p.). Within the construction, trade and services sectors, such enterprises declined by 3.4 p.p., 2.8 p. p. and 2.5 p. p. respectively in number (to 17.1%, 15.8% and 9.3%).

⁵ See macroeconomic projections published by the Bank of Lithuania (http://www.lb.lt/makroekonominės_proгноzes_2016_m_gruodis).

⁶ See https://www.lb.lt/n28534/nr_1_garbaravicius_-_2017-01-19_map_ir_nt_rinka.pdf

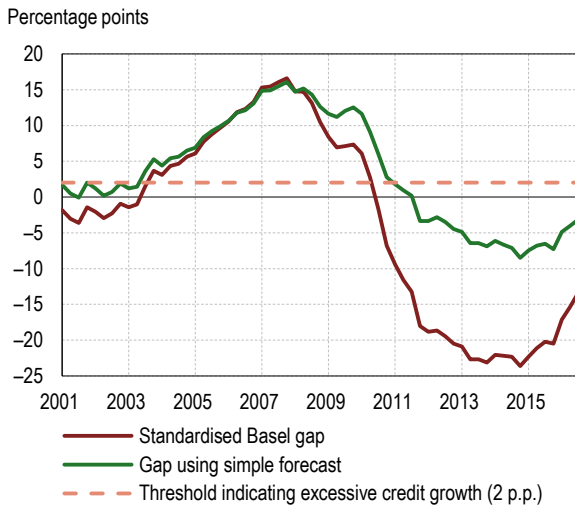
⁷ See https://www.lb.lt/lietuvos_bankas_busto_rinkos_pagyvejimo_metu_butina_priimti_pamatuotus_skolinimosi_sprendimus.

⁸ Sources: State Enterprise Centre of Registers and Bank of Lithuania calculations.

Annex 1: Housing market and credit trends

Chart 1. Gap between the credit-to-GDP ratio and its long-term trend

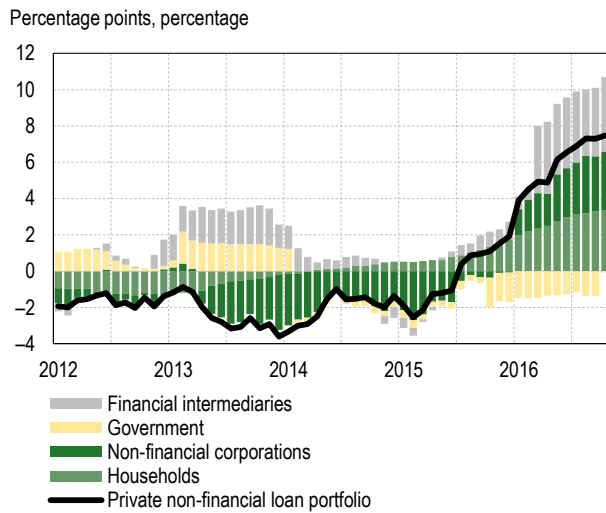
(Q1 2001–Q3 2016)



Sources: Statistics Lithuania and Bank of Lithuania calculations.

Chart 2. Contributions to MFI loans to the private non-financial sector

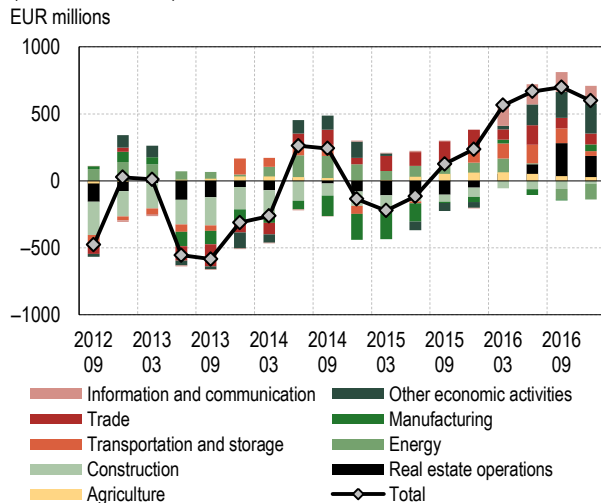
(January 2012–December 2016)



Source: Bank of Lithuania calculations.

Chart 3. Annual developments of MFI loans to non-financial undertakings

(Q3 2012–Q4 2016)

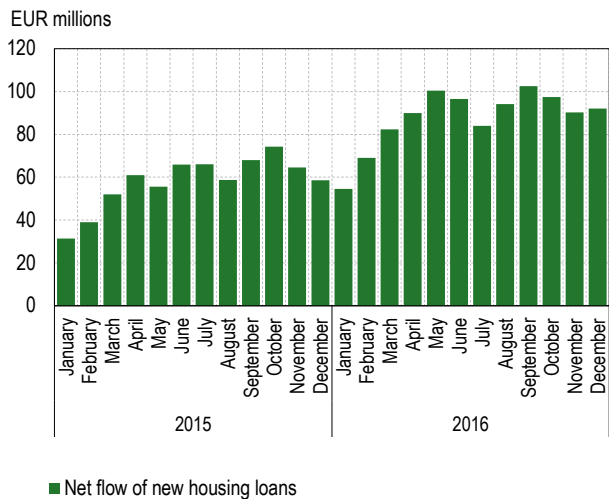


Source: Bank of Lithuania calculations.

Note: Names of some economic activities are abbreviated.

Chart 4. Flow of new housing loans

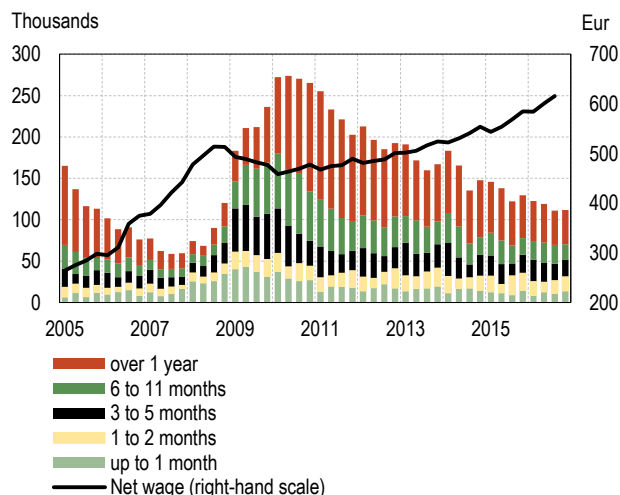
(January 2015–December 2016)



Sources: ECB and Bank of Lithuania calculations.

Chart 5. Number of unemployed persons by duration of unemployment and average wages and salaries

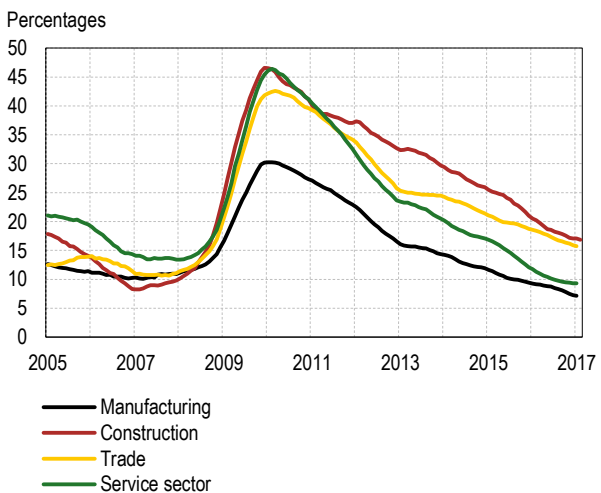
(Q1 2005–Q3 2016)



Source: Bank of Lithuania calculations.

Chart 6. Share of companies whose activities are curbed by financial difficulties

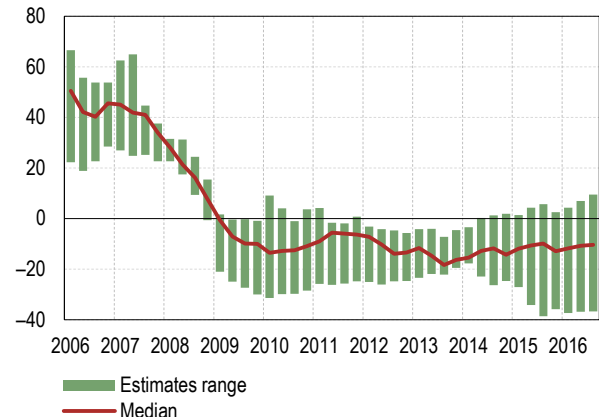
(January 2005–January 2017)



Sources: Statistics Lithuania and Bank of Lithuania calculations.

Chart 7. Gap between housing prices and the long-term average

(Q1 2006–Q3 2016)
Difference from fundamental values, percentages

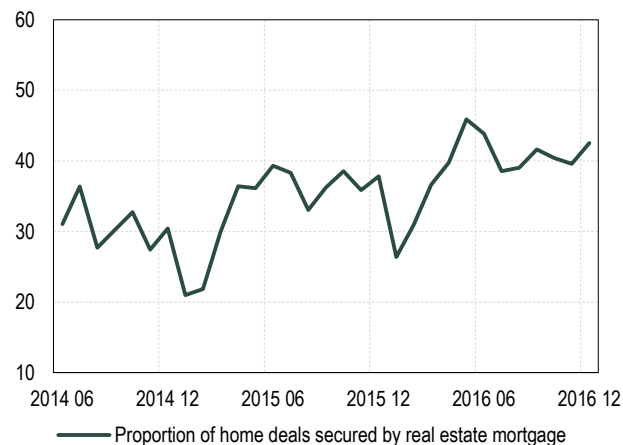


Source: Bank of Lithuania calculations.

Note: estimates are based on price to rent ratio, price to income ratio, econometric model and HP filter.

Chart 9. Share of housing deals using borrowed funds by number of deals

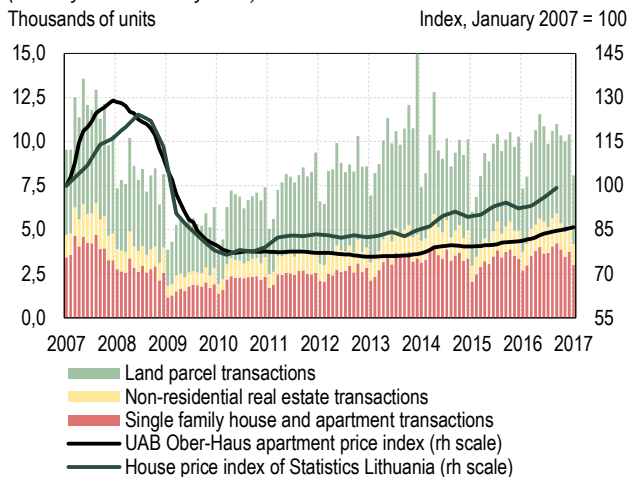
(June 2014–December 2016)
Percentages



Sources: State Enterprise Centre of Registers and Bank of Lithuania calculations.

Chart 8. Real estate market activity and price indices

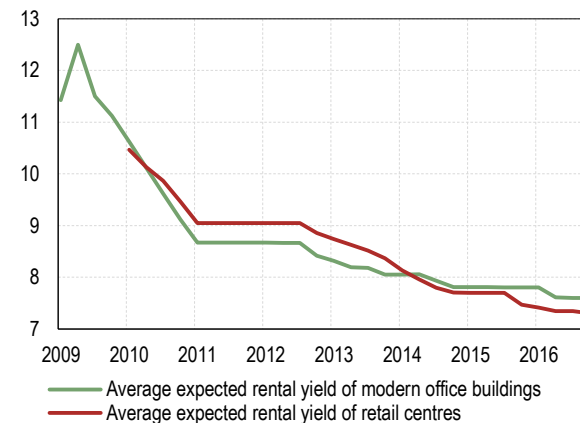
(January 2007–January 2017)



Sources: State Enterprise Centre of Registers, Statistics Lithuania, UAB Ober-Haus and Bank of Lithuania calculations.

Chart 10. Average expected return on the rent of modern offices and trade centres located in the major cities of Lithuania

(Q1 2009–Q4 2016)
Percentages



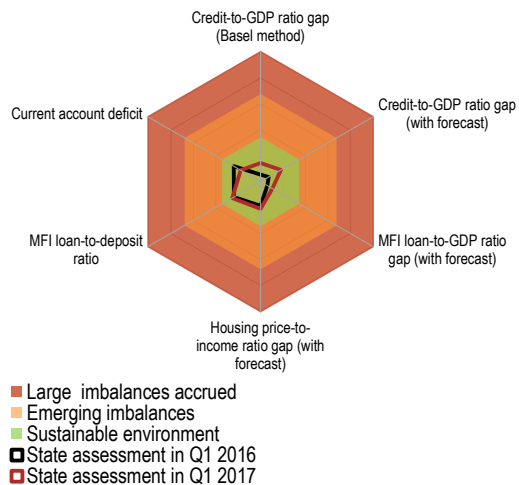
Sources: UAB Ober-Haus and Bank of Lithuania calculations.

Note: office rental yields are calculated in Vilnius, Kaunas and Klaipėda, whereas yields of retail centres - additionally in Šiauliai and Panevėžys.

Annex 2: CCB reference rates and warning indicators of the need to raise the CCB rate

Chart A Evaluation of credit market imbalances based on leading and additional indicators

(evaluation is being conducted in Q1 2017)

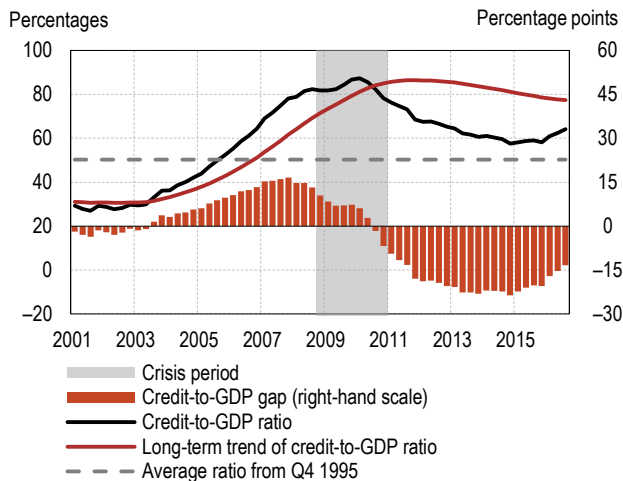


Sources: Statistics Lithuania and Bank of Lithuania calculations.

Note: axes are scaled according to the range of a particular indicator: from its minimal value up to the maximal value.

Chart B Leading indicator I: Credit to the private non-financial sector-to-GDP ratio gap (calculated using the standardised Basel method)

(Q1 2001–Q3 2016)

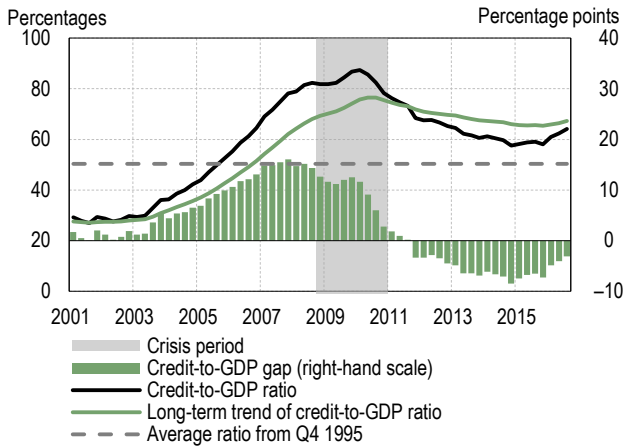


Sources: Statistics Lithuania and Bank of Lithuania calculations.

Note: long-term trend is computed using a one-sided HP filter with a smoothing parameter of 400,000.

Chart C. Leading indicator II: Credit to the private non-financial sector-to-GDP gap (calculating using the forecast-augmented method)

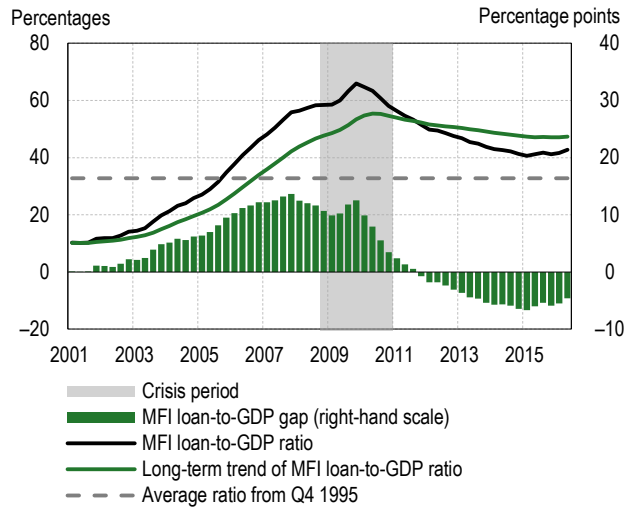
(Q1 2001–Q3 2016)



Sources: Statistics Lithuania and Bank of Lithuania calculations.
 Note: the long-term trend is computed by applying a one-sided HP filter with the smoothing parameter of 400,000; before applying the filter, the ratio is modelled for the next five-year window using a four-quarter weighted average.

Chart D. Additional indicator I: MFI lending to the private non-financial sector-to-GDP ratio gap (calculated using the forecast-augmented method)

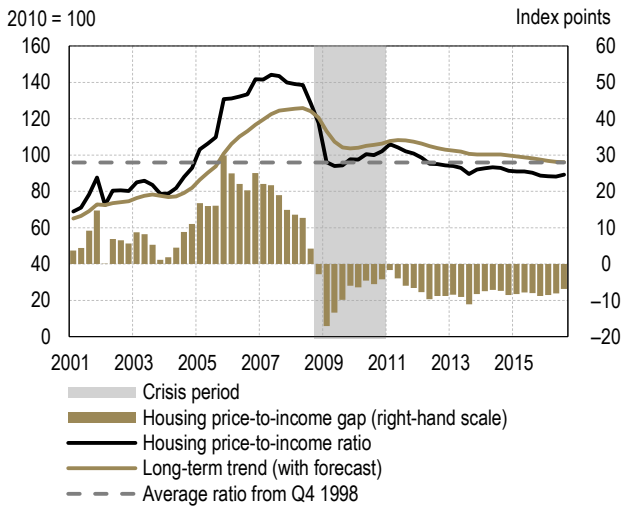
(Q1 2001–Q4 2016)



Sources: Statistics Lithuania and Bank of Lithuania calculations.
 Note: the long-term trend is estimated by applying a one-sided HP filter with the smoothing parameter 400,000; before applying the filter, the ratio is modelled for the next five-year window using a four-quarter weighted average.

Chart E. Additional indicator II: Housing prices-to-household income ratio gap (calculated using the forecast-augmented method)

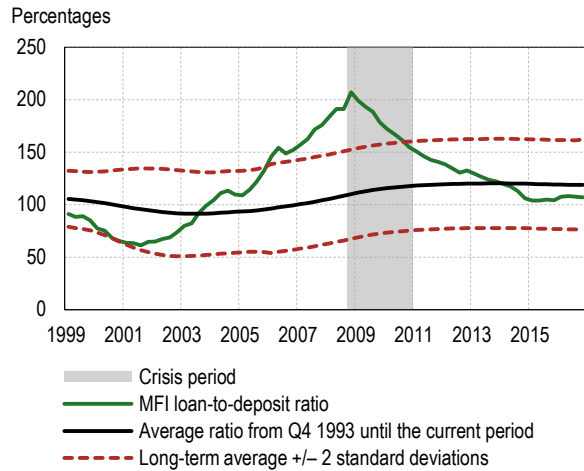
(Q1 2001–Q3 2016)



Sources: Statistics Lithuania and Bank of Lithuania calculations.
 Notes: 1) income – household wages and salaries; 2) the long-term trend is estimated by applying a one-sided HP filter with the smoothing parameter 400,000; before applying the filter, the ratio is modelled for the next five-year window using a four-quarter weighted average.

Chart F. Additional indicator III: Ratio of MFI lending to the private sector and private sector deposits (after eliminating seasonal effects)

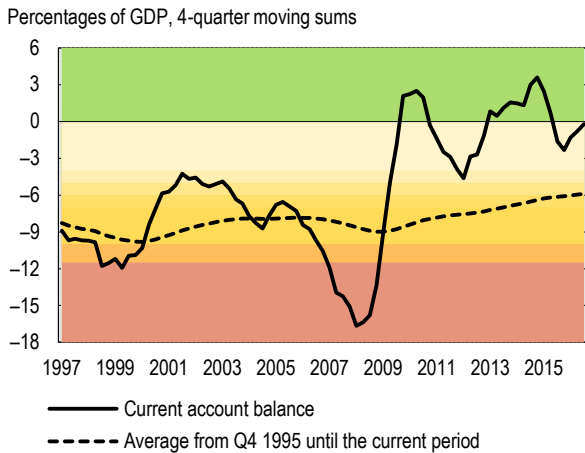
(Q1 1999–Q4 2016)



Source: Bank of Lithuania calculations.
 Note: the ratio develops in a balanced way if it does not deviate from its long-term average by more than two standard deviations. Standard deviation is computed on the basis of Q4 1993–Q1 2006 data covering the period of moderate changes in the ratio.

Chart G. Additional indicator IV: Current account balance (4-quarter moving sums)-to-GDP ratio

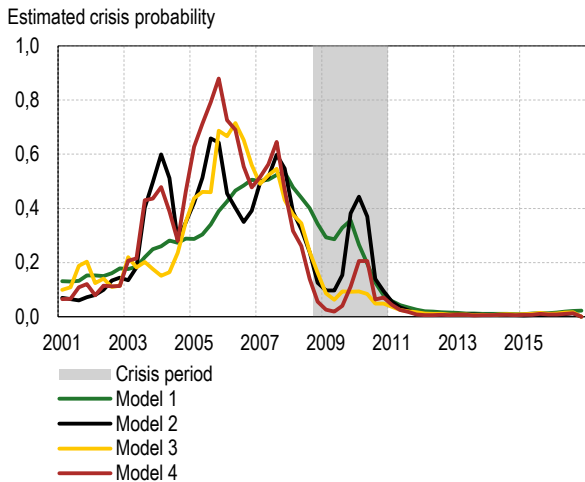
(Q1 1997–Q3 2016)



Sources: Statistics Lithuania and Bank of Lithuania calculations.
Note: colours indicate different levels of risk which have been set based on Reinhart S. M. and V. R. Reinhart (2008): "Capital flow bonanzas: An encompassing of the past and present", NBER working paper, 14321.

Chart I. Composite early warning indicators of crisis for Lithuania

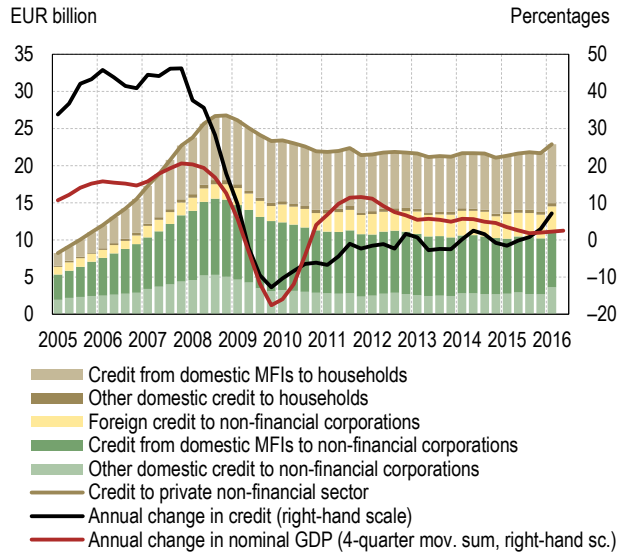
(Q1 2001–Q4 2016)



Source: Bank of Lithuania calculations.
Note: composite indicators are calculated based on logit models estimated in Detken et al. (2014), Operationalising the countercyclical capital buffer: indicator selection, threshold identification and calibration options, ESRB Occasional Paper No. 5.

Chart H. Credit and nominal GDP dynamics

(Q1 2005–Q3 2016; nominal GDP dynamics – until Q4 2016)



Sources: Statistics Lithuania and Bank of Lithuania calculations.