LIETUVOS BANKAS
EUROSISTEMA

Quarterly assessment of the financial cycle in Lithuania

June
2023

 ISSN 2783-7327 (online)

The publication was prepared by the Financial Stability Department of the Bank of Lithuania.
Unless otherwise indicated, the cut-off date for data used in the publication was 24 May 2023.

Periods indicated in charts include data for the respective year, quarter, etc.

Gedimino pr. 6, LT-01103 Vilnius,
www.lb.lt

Introduction

The quarterly assessment of the financial cycle in Lithuania (formerly – the Credit and Real Estate Market Review) is a quarterly publication issued by the Bank of Lithuania that assesses the state of the financial cycle in Lithuania and the level of cyclical systemic risk: the sustainability of trends in the credit and real estate markets, imbalances in the financial system and the risk of their build-up or widening. The information provided in this review forms the basis for a regular assessment of the level of the rates of the financial stability instruments used, such as the counter-cyclical capital buffer and the sectoral systemic risk buffer for the housing loan portfolio.[1]

Explanation of the key terms used in the publication:

Financial cycle. *The financial cycle refers to the development cycle of the financial system, comprising four phases: expansion (growth), deceleration, recession and recovery, defined by the overall evolution of the various indicators of the financial system (in particular, those reflecting trends in the credit and real estate markets), which are related, for example, to the perception of the value of financial assets and real estate, the perceived level of risk, the tightening or relaxation of lending standards and the resulting impact on the supply of credit, and the interplay between these phenomena. The literature generally considers that the financial cycle lasts longer than the business cycle and can significantly amplify economic booms and deepen recessions. The application of the counter-cyclical capital buffer aims at increasing the resilience of the financial system and, to some extent, reducing its pro-cyclicality and, within the meaning of financial cycle, at reducing the size of fluctuations in the financial cycle, especially in the recession phase.*

Cyclical (systemic) risk. Systemic risk is the risk of a disruption to the financial system or a part of the financial system, which could have significant negative consequences for the financial system and the economy. Two types of systemic risk are generally distinguished: cyclical and structural risks.[2] Cyclical risk is related to the development of the financial cycle: it rises and falls as the financial cycle develops, and is usually associated with changes in the supply of credit and in the risk assessment of financial system participants.

Abbreviations

CCyB – counter-cyclical capital buffer

HPI – house price index

GDP – gross domestic product

HP – Hodrick–Prescott filter

NFC – non-financial corporation

RE – real estate

HH – households

MFI – monetary financial institutions (banks, credit unions)

PNFS – private non-financial sector

HCPI – harmonised consumer price index

---

[1] https://www.lb.lt/en/financial-stability-instruments-1.

[2] Structural (systemic) risk arises from the structural features of the financial system, e.g. the interconnectedness of financial system participants, concentration and the specific nature of business models.

Key messages

The financial cycle in Lithuania shifted to a deceleration phase in the first quarter of 2023, with a slowdown in the growth rates of both total corporate credit and housing credit and persisting narrowed house price imbalances. During this period, corporate borrowing, both from MFIs and from other sources, slowed down and therefore, overall lending in the economy stood below the limit of build-up of imbalances. The results of the latest Bank Lending Survey conducted by the Bank of Lithuania[3] show that demand for new loans in all segments, except consumer finance loans, continued to decline in the first quarter of 2023, but expectations for future demand growth improved. In March 2023, the loan portfolio growth rate picked up only for consumer loans. The house price growth rate remains on the downside, while price level has broadly stabilised. The declining need to borrow is also driven by a current account surplus observed for the first time since 2021. The loan-to-deposit ratio of MFIs remains relatively low (79%). Only limited imbalances in house prices, which are still somewhat overvalued, have been observed.

Corporate borrowing, both from credit institutions and other sources, decelerated and banks expect demand for new loans from NFCs to remain broadly unchanged in the near future. The nominal annual growth rate of broad corporate credit (including peer-to-peer business loans) in the last quarter of 2022 coincided with the economic growth rate. The annual growth of the MFI corporate loan portfolio slowed down significantly to 10% in the first quarter of 2023, while a slight quarter on quarter shrinking of 1.5% was recorded for the first time since the beginning of 2021. As a result of the deceleration in corporate borrowing from other sources, the gap in the broad corporate credit-to-GDP ratio receded from the long-run trend in the fourth quarter of 2022, away from the limit of build-up of imbalances. Demand for new loans from NFCs continued to decline, with one third of the banks surveyed identifying a decline in demand in the first quarter of 2023. Only demand for short-term loans is expected to pick up in the future.

The growth rate of the household loan portfolio continued to go down, although banks expect a recovery in demand for household credit in the future. The nominal annual growth of the MFI housing loan portfolio fell from 13% to 11% over the first quarter of 2023. The number of new housing loans continued to fall as housing market activity slowed down and borrowing became more expensive, but the annual flow of new housing loans shrank to a relatively lesser extent, around 3% in March 2023, due to an increase in average loan value. The number of consumer loans remained broadly unchanged in the first quarter, but the average value of loans granted rose sharply. Overall, there are no household credit imbalances, with the gap in the ratio of household MFI loans to GDP remaining negative and broadly unchanged from its long-term trend. The results of the bank survey disclosed that a minor increase in demand was recorded only in the segment of consumer loans, but an increase in demand for both housing and consumer loans is expected in the future.

The level of house prices has been rather stable since autumn 2022, leading to a further deceleration of the annual growth rate of housing prices and reduction of overvaluation. According to different indicators, the annual rate of housing price growth in April 2023 stood at 10–14% and continued to slow down, while monthly frequency trends from October 2022 point to price stabilisation. There are still some limited imbalances at the house price level, with prices overvalued by around 2% based on the median of six different estimates (7 percentage points less than in the last quarter of 2021). Rising interest rates have a dampening effect on the demand for housing loans and the overall housing demand, against the

[3] Review of the Bank Lending Survey https://www.lb.lt/en/reviews-and-publications/category.40/series.196.

backdrop of reduced affordability. On the other hand, the reduced demand limits house price growth, thus, since the fourth quarter of 2022, wages have been rising at a faster pace than house price levels. Expectations for further developments in house prices have not changed significantly over the quarter; according to the surveys, banks continue to expect a slight decrease of 5–10% or stabilisation in prices over the next year, however, there were some banks reporting that house prices might increase in the coming years.

In the context of downturn of the financial cycle and increase in the likelihood of risks materialising due to subdued economic activity, the main objective of the macro-prudential policy and the application of the CCyB is to maintain the resilience of the credit institution sector. The CCyB rate for the second quarter of 2023 is therefore kept unchanged at 1%. Its entry into force on 1 October 2023 will allow credit institutions to hold a capital buffer that can be released in the case of risks materialising. Currently, banks and central credit union groups already have accumulated a capital stock of more than 1% of the CCyB requirement, and the projected high profitability of the banking sector, in the context of the rise in interest rates, should help to maintain and further strengthen this buffer, even in the face of heightened economic uncertainty.

Financial cycle assessment

The financial cycle is moving into a deceleration phase, with growth rates of overall corporate credit, housing credit and prices falling. Only limited house price imbalances are observed.

Chart 1. Cyclical risk assessment matrix

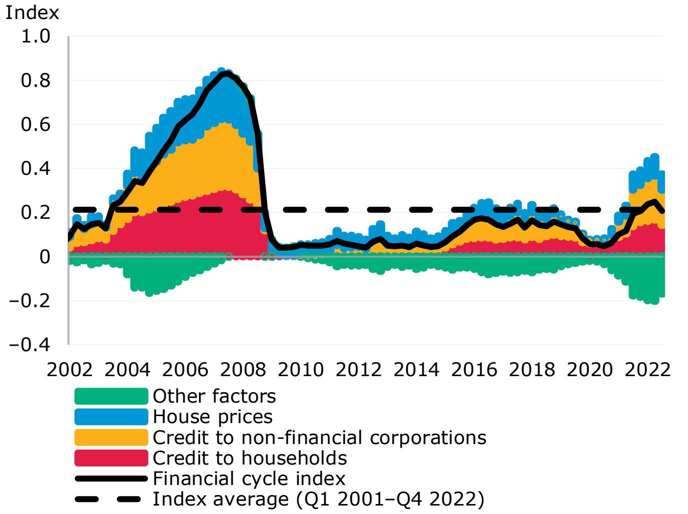
Chart 2. Heatmap of non-financial private sector credit growth, credit imbalances and composite financial cycle indicators
(Q2 2019–Q1 2023, the latest data are marked by the black dashed line on the right).

	2019 II	2019 III	2019 IV	2020 I	2020 II	2020 III	2020 IV	2021 I	2021 II	2021 III	2021 IV	2022 I	2022 II	2022 III	2022 IV	2023 I
Non-financial private sector																
Growth indicators																
Composite indicators																
Domestic systemic risk indicator (d-SRI; real GDP, broad credit, house price index, new MFI loans' interest rates, population)	-0,17	-0,22	-0,26	-0,31	-0,42	-0,43	-0,41	-0,34	-0,30	-0,20	-0,06	0,01	0,07	0,13	0,16	
Financial cycle index (new MFI loans, house prices, debt burden, interest rate spread, current account balance)	0,05	0,04	0,03	0,03	0,03	0,03	0,05	0,07	0,08	0,11	0,13	0,13	0,13	0,13	0,10	
Financial cycle index (broad credit, house prices, debt burden, interest rate spread, current account balance)	0,15	0,13	0,13	0,08	0,06	0,05	0,05	0,06	0,10	0,12	0,20	0,21	0,24	0,25	0,21	
Band pass filtered financial cycle indicator (real broad credit, house price index, and credit to GDP ratio medium-term changes)	-0,04	-0,04	-0,05	-0,05	-0,05	-0,05	-0,05	-0,06	-0,06	-0,06	-0,06	-0,06	-0,06	-0,06	-0,06	
Nominal growth																
1-year nominal growth of broad credit	8,2	7,0	6,4	2,8	-2,6	-2,2	-2,6	1,6	6,6	7,9	18,0	18,2	23,9	25,9	16,4	
1-year nominal average growth of broad credit (2-year annual average)	9,7	8,2	7,1	6,1	2,6	2,3	1,8	2,2	1,9	2,8	7,5	10,0	16,1	18,0	18,7	
1-year nominal MFI credit growth	2,5	3,9	3,2	3,2	-0,5	-1,2	-2,1	-1,4	3,1	5,8	10,7	13,3	14,0	16,0	14,2	10,0
1-year nominal average growth of MFI credit (2-year annual average)	5,9	4,9	4,8	4,3	1,0	1,3	0,5	0,9	1,3	2,3	4,2	5,9	8,8	11,4	13,2	12,3
Real growth																
1-year real growth of broad credit	5,5	4,5	4,3	0,4	-3,3	-3,1	-2,9	0,8	3,4	2,6	7,9	3,7	4,5	3,7	-3,9	
1-year real average growth of broad credit (2-year annual average)	6,7	5,6	4,7	3,7	1,0	0,6	0,7	0,6	0,0	-0,3	2,4	2,3	4,0	3,2	1,8	
1-year real MFI credit growth	0,0	1,6	1,2	0,7	-1,2	-2,1	-2,4	-2,1	0,0	0,6	1,2	-0,5	-3,8	-4,5	-5,8	-5,9
1-year real average growth of MFI credit (2-year annual average)	3,1	2,5	2,5	1,9	-0,6	-0,3	-0,6	-0,7	-0,6	-0,8	-0,6	-1,3	-1,9	-2,0	-2,3	-3,2
Credit-to-GDP differences																
1-year difference of the broad credit-to-GDP ratio	0,2	-0,7	-0,6	-2,4	-4,3	-3,5	-2,8	-0,2	0,0	-0,6	2,9	1,1	3,8	3,6	-1,3	
1-year average difference of the broad credit-to-GDP ratio (2-year annual average)	0,7	0,0	-0,4	-0,8	-2,0	-2,1	-1,7	-1,3	-2,1	-2,0	0,0	0,4	1,9	1,5	0,8	
1-year difference of the MFI credit-to-GDP ratio	-2,1	-1,6	-1,7	-1,4	-1,9	-1,8	-1,6	-1,3	-1,3	-1,2	-0,7	-0,9	-0,8	-0,9	-1,5	-2,0
1-year average difference of the MFI credit-to-GDP ratio (2-year annual average)	-0,9	-1,2	-1,1	-1,2	-2,0	-1,7	-1,6	-1,4	-1,6	-1,5	-1,1	-1,1	-1,1	-1,0	-1,1	-1,5
Other indicators																
Relative credit flow indicator (real 2-year broad credit to NFPS growth divided by 2-year moving sum of real GDP)	0,04	0,03	0,03	0,02	0,01	0,00	0,00	0,00	0,00	0,00	0,02	0,01	0,02	0,02	0,01	
1-year difference of broad credit to NFPS-to-GDP ratio (1-year moving sum of broad credit multiplied by 5, divided by 5-year moving sum of GDP)	6,8	5,1	4,0	-0,8	-7,4	-13,8	-19,3	-20,0	-15,2	-9,6	2,1	10,9	20,0	28,8	27,0	
1-year difference of MFI credit to NFPS-to-GDP ratio (1-year moving sum of MFI credit multiplied by 5, divided by 5-year moving sum of GDP)	-1,6	-2,7	-4,3	-5,5	-6,2	-8,5	-10,4	-12,4	-11,7	-9,4	-5,0	-0,1	3,2	5,9	6,5	5,1
Ratio of pure new loans (4 quarters sum) to GDP (4 quarters sum)	8,6	8,2	7,8	7,1	6,4	6,2	6,9	7,5	8,5	8,9	9,4	9,3	9,4	9,1	8,4	8,5
Ratio of new loans with rollovers (4 quarters sum) to GDP (4 quarters sum)	12,9	12,3	11,6	11,2	11,6	11,3	12,3	12,5	12,7	13,3	13,8	13,9	13,6	13,2	12,7	13,0
Non-financial private sector credit impulse (loan portfolio, first version)	-4,5	2,2	-1,1	0,0	-6,0	-1,1	-1,3	1,0	6,8	3,6	6,5	3,1	0,7	2,2	-2,3	-5,1
Non-financial private sector credit impulse (loan portfolio, second version)	-6,4	-1,6	-2,9	-2,0	-3,1	-5,2	-5,3	-4,6	3,7	7,0	12,8	14,7	10,9	10,2	3,5	-3,3
Non-financial private sector credit impulse (flow of new loans)	-4,2	-2,4	-2,6	-1,5	1,4	-1,0	4,1	0,6	0,7	2,5	1,6	0,8	-1,3	-1,4	-2,4	0,8
1-year difference of the non-financial private sector debt service to income ratio	-0,7	0,8	0,6	-1,1	-2,4	-2,1	-2,1	-0,9	-0,3	-0,3	1,8	1,3	2,6	2,5	0,3	
2-year difference of the non-financial private sector debt service to income ratio	1,6	1,0	0,9	-0,3	-1,5	-0,7	-0,8	-1,0	-1,4	-1,2	-0,1	0,2	1,1	1,1	1,1	
Imbalance indicators																
Gap between the broad credit to the NFPS-to-GDP ratio and its long-term trend (Basel method)	-9,6	-9,8	-10,8	-11,9	-12,3	-11,5	-11,8	-10,3	-10,5	-10,4	-7,3	-7,7	-5,4	-5,7	-7,6	
Gap between the broad credit to the NFPS-to-GDP ratio and its long-term trend (LT method)	-3,1	-3,6	-4,7	-5,5	-5,7	-5,0	-5,3	-4,2	-4,7	-4,8	-2,4	-3,2	-1,6	-2,4	-4,1	
Gap between the MFI credit to the NFPS-to-GDP ratio and its long-term trend (LT method)	-5,1	-5,1	-5,6	-5,4	-5,6	-5,4	-5,7	-5,3	-5,5	-5,2	-5,2	-5,1	-5,2	-5,0	-5,4	-5,6
Gap between the broad credit to the NFPS-to-GDP ratio and its long-term trend (State Space method)	-1,3	-2,4	-4,5	-6,6	-8,1	-8,4	-9,8	-9,4	-10,7	-11,6	-9,5	-10,9	-9,5	-10,7	-13,5	
Other indicators																
Capital adequacy ratio	19,6	19,0	23,7	23,1	23,1	22,5	24,0	24,5	23,1	22,6	23,5	22,7	21,3	19,9	19,1	
Leverage ratio of banks	7,6	7,4	8,3	8,2	7,8	7,3	7,4	7,4	6,9	6,8	8,6	6,5	6,0	5,9	5,9	
Loan-to-deposit ratio	95,7	94,1	92,6	88,1	80,6	76,4	71,1	68,5	68,3	69,7	74,0	77,9	80,0	81,3	79,9	79,1
Current account balance-to-GDP ratio	1,7	2,4	3,5	4,8	6,2	7,3	7,3	6,6	4,7	3,0	1,1	-1,3	-2,8	-4,4	-5,1	-3,2

Note: Values are rounded; stages of some indicators are evaluated based on the percentiles of their values, hence in some instances cells that have the same value may be coloured differently.

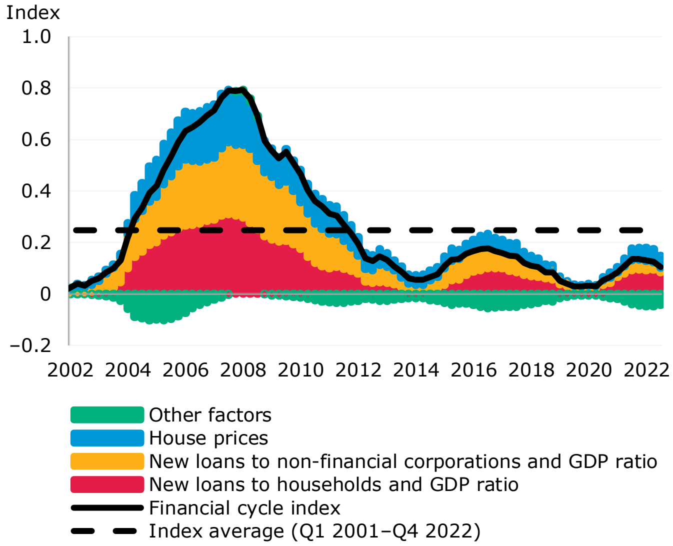
A marked slowdown in corporate borrowing from credit institutions and other sources, as well as the subsiding housing credit, led to a decline in both the broad-based and the MFI credit-based financial cycle index.

Chart 3. Lithuania's financial cycle index and its drivers (total credit, Q1 2002–Q4 2022)



Sources: State data agency and Bank of Lithuania.
Note: the assessment uses a broader definition of credit to NFCs and HHs, regardless of the credit provider.

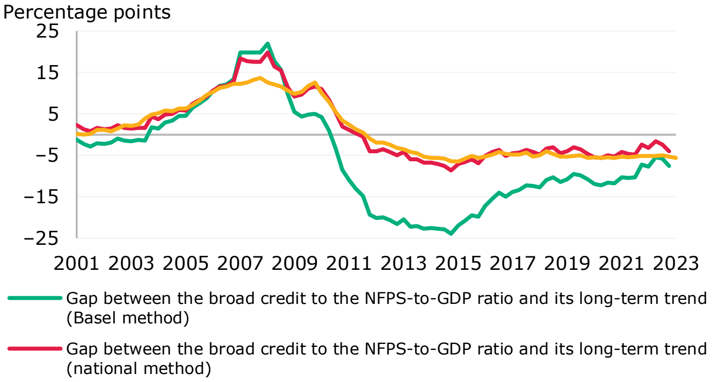
Chart 4. Lithuania's financial cycle index and its drivers (MFI loans, Q1 2002–Q4 2022)



Sources: State data agency and Bank of Lithuania.

The slowdown in corporate borrowing led to a decrease in the volume of credit in the economy and no credit imbalances were observed.

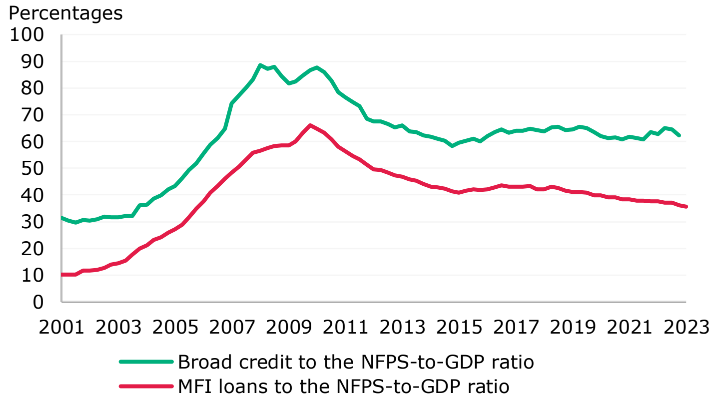
Chart 5. Credit and MFI loans to the non-financial private sector to GDP ratio gap (Q1 2001–Q1 2023)



Sources: State data agency and Bank of Lithuania.
Note: long-term trend is computed using a one-sided HP filter with a smoothing parameter of 400,000; for the national method, before applying the filter, the ratio is modelled for the next 5-year window using a 4-quarter weighted average.

Indebtedness of the non-financial private sector, both to MFIs and other sources, decreased.

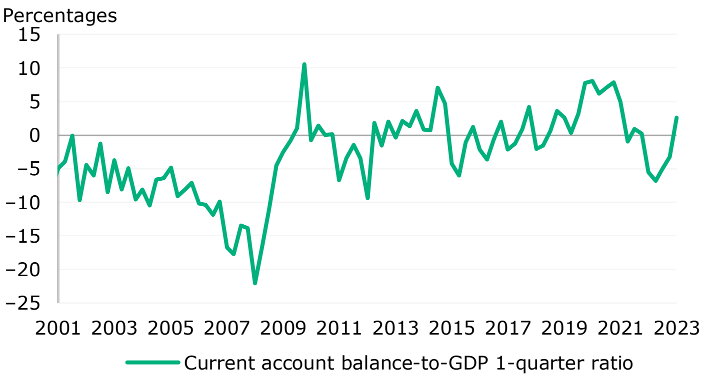
Chart 6. Credit and MFI loans to the non-financial private sector to GDP ratios (Q1 2001–Q1 2023)



Sources: State data agency and Bank of Lithuania.

For the first time since 2021, current account surplus reducing the need to borrow is observed.

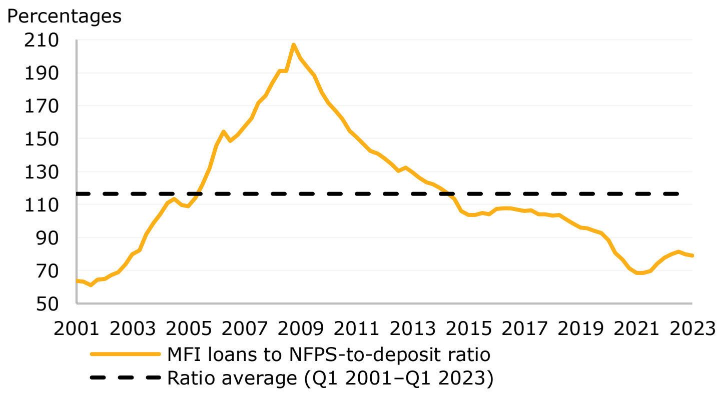
Chart 7. Current account-to-GDP ratio (Q1 2001–Q1 2023)



Sources: State data agency and Bank of Lithuania.

The slowing down credit and current account surplus led to a stable and low MFI loan-to-deposit ratio.

Chart 8. Ratio of MFI loans to the non-financial private sector to deposits (Q1 2001–Q1 2023)



Sources: State data agency and Bank of Lithuania.

Non-financial corporation sector

Total corporate borrowing (broad credit) decelerated markedly and is approaching normal growth rates.

Chart 9. Map of growth and imbalance indicators in the corporate sector

(Q2 2019–Q1 2023, the latest data are marked by the black dashed line on the right).

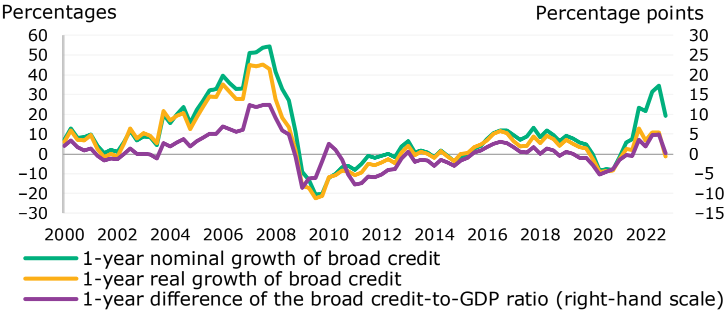
	2019 II	2019 III	2019 IV	2020 I	2020 II	2020 III	2020 IV	2021 I	2021 II	2021 III	2021 IV	2022 I	2022 II	2022 III	2022 IV	2023 I
Non-financial corporations sector																
Growth indicators																
Nominal growth																
1-year nominal growth of broad credit	7,7	5,8	4,9	-0,2	-8,5	-7,9	-8,1	-1,8	5,6	7,3	23,4	21,7	31,4	34,5	19,3	
1-year nominal average growth of broad credit (2-year annual average)	10,2	8,0	5,8	4,5	-0,7	-1,3	-1,8	-1,0	-1,7	-0,6	6,7	9,7	19,4	22,2	23,6	
1-year nominal growth of broad and trade credit	4,8	3,7	2,2	1,0	-5,5	-2,6	-1,4	5,1	13,1	13,1	23,4	17,6	20,9	22,4	11,0	
1-year nominal average growth of broad and trade credit (2-year annual average)	8,9	6,7	4,1	5,3	-0,5	0,5	0,4	3,1	3,4	5,1	10,8	11,8	18,4	19,2	18,5	
1-year nominal MFI credit growth	-3,5	-0,8	-1,2	-2,0	-9,0	-10,1	-12,5	-11,3	-3,8	1,2	10,6	16,2	17,5	21,3	18,3	10,0
1-year nominal average growth of MFI credit (2-year annual average)	3,4	1,5	1,1	-0,1	-6,1	-5,4	-6,8	-6,5	-6,2	-4,5	-1,6	1,5	6,5	11,4	15,5	13,9
Real growth (adjusted for HICP)																
1-year real growth of broad credit	5,0	3,4	2,8	-2,6	-9,1	-8,7	-8,3	-2,6	2,3	2,0	12,8	6,8	10,8	10,7	-1,5	
1-year real average growth of broad credit (2-year annual average)	7,3	5,4	3,5	2,1	-2,3	-2,8	-2,9	-2,5	-3,5	-3,4	1,7	2,0	6,7	6,5	5,5	
1-year real growth of broad and trade credit	2,2	1,3	0,2	-1,4	-6,1	-3,5	-1,6	4,3	9,7	7,5	12,8	3,2	2,0	0,7	-8,4	
1-year real average growth of broad and trade credit (2-year annual average)	6,0	4,2	1,8	2,8	-2,0	-1,1	-0,7	1,4	1,5	1,9	5,5	3,8	5,9	4,2	1,7	
1-year real MFI credit growth	-5,9	-3,0	-3,2	-4,4	-9,6	-10,9	-12,7	-11,9	-6,7	-3,8	1,1	2,0	-0,9	-0,2	-2,3	-6,0
1-year real average growth of MFI credit (2-year annual average)	0,8	-0,7	-1,1	-2,3	-7,5	-6,8	-7,7	-7,9	-7,8	-7,2	-5,8	-5,1	-3,8	-2,0	-0,6	-2,1
Credit-to-GDP differences																
1-year difference of the broad credit-to-GDP ratio	0,0	-0,9	-1,0	-2,8	-5,2	-4,6	-4,0	-1,5	-0,4	-0,6	3,5	1,8	4,7	4,8	0,1	
1-year average difference of the broad credit-to-GDP ratio (2-year annual average)	0,6	-0,1	-0,7	-1,1	-2,6	-2,7	-2,5	-2,1	-2,8	-2,6	-0,3	0,2	2,2	2,1	1,8	
1-year difference of the broad and trade credit-to-GDP ratio	-2,1	-3,1	-3,6	-4,0	-6,8	-4,1	-2,2	2,1	4,0	2,5	6,3	0,9	2,6	2,0	-4,8	
1-year average difference of the broad and trade credit-to-GDP ratio (2-year annual average)	0,3	-0,9	-2,4	-1,5	-4,4	-3,6	-2,9	-0,9	-1,4	-0,8	2,1	1,5	3,3	2,3	0,7	
1-year difference of the MFI credit-to-GDP ratio	-2,3	-1,7	-1,6	-1,6	-2,5	-2,5	-2,6	-2,3	-1,7	-1,2	-0,3	0,0	0,1	0,3	-0,1	-0,8
1-year average difference of the MFI credit-to-GDP ratio (2-year annual average)	-0,9	-1,2	-1,2	-1,4	-2,4	-2,1	-2,1	-2,0	-2,1	-1,8	-1,4	-1,2	-0,8	-0,4	-0,2	-0,4
Other indicators																
1-year difference of broad NFC credit-to-GDP ratio (1-year moving sum of broad NFC credit multiplied by 5, divided by 5-year moving sum of GDP)	4,3	2,3	1,2	-3,3	-10,1	-16,2	-21,4	-21,8	-16,4	-10,5	1,2	9,3	18,1	26,8	24,9	
Ratio of pure new loans (4 quarters sum) to GDP (4 quarters sum)	4,8	4,5	4,1	3,3	2,9	2,6	3,2	3,6	4,2	4,4	4,8	4,7	4,9	4,5	3,9	4,1
Ratio of new loans (including rollovers) to GDP	8,5	7,9	7,4	6,9	7,4	7,1	8,0	8,0	7,7	8,2	8,6	8,8	8,5	8,0	7,6	
NFC credit impulse (MFI loan portfolio)	-4,4	2,2	-0,2	-0,6	-5,4	-0,9	-1,4	0,9	5,6	2,9	5,4	2,7	0,6	1,8	-1,4	-4,2
NFC credit impulse (flow of new MFI loans)	-3,2	-2,0	-2,2	-1,8	1,9	-1,0	3,4	0,0	-1,1	2,1	1,3	0,7	-1,0	-1,8	-1,9	1,3
1-year difference of NFC debt to income ratio	1,0	-0,9	-1,8	-4,0	-7,8	-5,8	-7,0	-4,4	-2,0	-1,6	0,5	0,6	4,1	5,3	6,0	
1-year difference of ratio of NFC liabilities to assets	-7,1	-3,7	-4,5	-1,5	-10,3	-12,0	-12,8	-12,3	-5,5	-1,9	4,5	4,3	16,3	19,5	11,9	
1-year difference of the NFC debt service to income (profit) ratio	-0,4	2,0	1,9	-1,0	-3,5	-3,4	-3,5	-1,6	-0,4	0,3	3,9	3,1	5,4	7,3	1,7	
Imbalance indicators																
Gap between the broad credit to NFC-to-GDP ratio and its long-term trend (Basel method)	-3,6	-4,1	-5,4	-6,5	-7,7	-7,3	-7,9	-6,4	-6,6	-6,4	-3,2	-3,4	-1,0	-1,0	-2,5	
Gap between the broad credit to NFC-to-GDP ratio and its long-term trend (LT method)	-1,2	-1,7	-2,9	-3,7	-4,5	-3,9	-4,3	-3,0	-3,4	-3,4	-0,9	-1,6	0,1	-0,4	-1,8	
Gap between the MFI credit to NFC-to-GDP ratio and its long-term trend (LT method)	-3,3	-3,3	-3,8	-3,7	-4,3	-4,2	-4,6	-4,2	-4,3	-3,8	-3,7	-3,3	-3,4	-3,0	-3,2	-3,4
NFC to equity ratio	47,3	45,3	43,6	41,7	39,5	39,5	36,7	37,3	37,5	37,9	37,2	38,0	41,6	43,3	43,2	
NFC short-term liabilities to short-term assets ratio	38,5	37,1	34,3	35,6	28,3	25,2	21,5	23,3	22,8	23,3	26,0	27,6	39,1	42,8	37,9	
NFC debt service to income (profit) ratio	22,0	21,7	21,1	20,4	19,6	19,6	19,0	19,5	19,3	19,3	20,8	20,8	21,9	21,8	21,1	

Note: Values are rounded; stages of some indicators are evaluated based on the percentiles of their values, hence in some instances cells that have the same value may be coloured differently.

Both peer-to-peer lending and borrowing from credit institutions slowed down.

Chart 10. Corporate credit developments

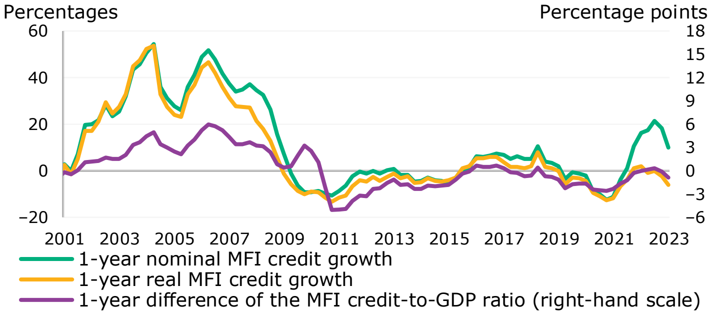
(Q1 2000–Q4 2022)



Sources: State data agency, Bank of Lithuania and Bank of Lithuania calculations.

Chart 11. Developments in corporate borrowing from MFIs

(Q1 2001–Q1 2023)

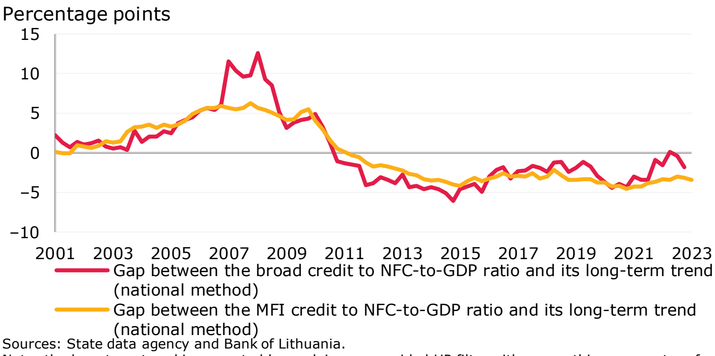


Sources: State data agency, Bank of Lithuania and Bank of Lithuania calculations.

The level of broad corporate credit declined markedly and is no longer at the limit of imbalances.

Chart 12. Corporate credit imbalances

(Q1 2001–Q1 2023)



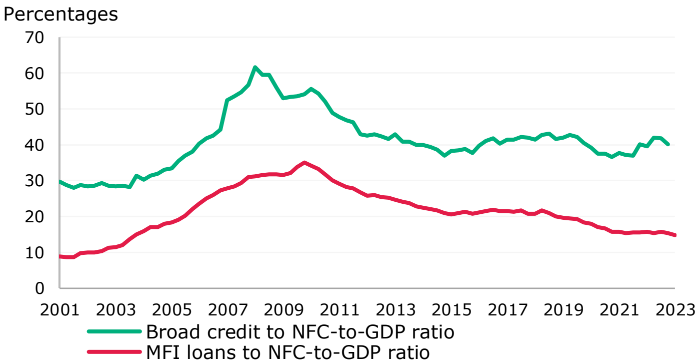
Sources: State data agency and Bank of Lithuania.

Note: the long-term trend is computed by applying a one-sided HP filter with a smoothing parameter of 400,000; before applying the filter, the ratio is modelled for the next 5-year window using a 4-quarter weighted average.

Corporate indebtedness to credit institutions remained low, while total indebtedness decreased slightly.

Chart 13. Corporate credit-to-MFI loans-to GDP ratios

(Q1 2001–Q1 2023)



Sources: State data agency and Bank of Lithuania.

Household/housing sector

Growth rates in housing credit and prices continued to decelerate, with limited imbalances remaining only in the house price segment.

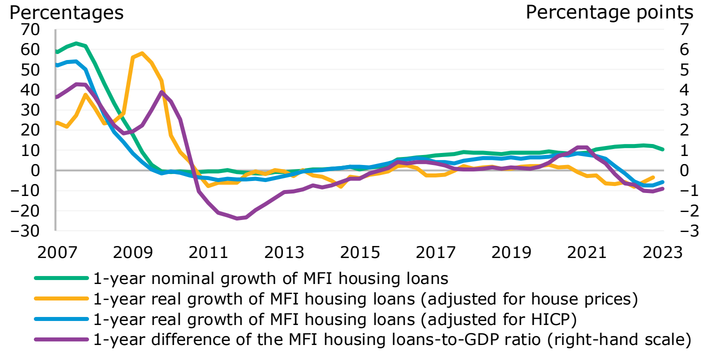
Chart 14. Map of household / housing sector growth and imbalance indicators
(Q2 2019–Q1 2023, the latest data are marked by the black dashed line on the right)

	2019 II	2019 III	2019 IV	2020 I	2020 II	2020 III	2020 IV	2021 I	2021 II	2021 III	2021 IV	2022 I	2022 II	2022 III	2022 IV	2023 I
Household / housing sector																
Growth indicators																
Credit																
1-year nominal growth of MFI housing loans	8,5	8,7	8,6	9,3	8,6	8,4	8,5	8,6	10,5	11,2	11,6	12,1	12,0	12,4	12,1	10,3
1-year nominal average growth of MFI housing loans (2-year annual average)	9,1	8,9	8,7	9,4	8,9	8,9	8,9	9,4	10,0	10,2	10,5	10,9	11,9	12,5	12,5	11,8
1-year real growth of MFI housing loans (adjusted for housing prices)	1,8	2,1	2,0	2,9	1,5	1,8	-0,8	-3,0	-2,5	-6,5	-6,9	-5,9	-8,2	-5,7	-3,4	
1-year real average growth of MFI housing loans (2-year annual average, adjusted for housing prices)	1,6	2,0	1,3	1,9	1,7	2,0	0,6	-0,1	-0,5	-2,4	-3,8	-4,4	-5,2	-5,9	-5,0	
1-year real growth of MFI housing loans (adjusted for HICP)	5,8	6,2	6,5	6,7	7,9	7,4	8,2	7,8	7,1	5,7	2,0	-1,6	-5,5	-7,4	-7,5	-5,7
1-year real average growth of MFI housing loans (2-year annual average, adjusted for HICP)	6,2	6,4	6,3	6,8	7,1	7,1	7,6	7,5	7,8	6,7	5,2	3,0	0,6	-1,1	-2,8	-3,6
1-year difference of the MFI housing loans-to-GDP ratio	0,1	0,1	0,2	0,4	0,7	0,8	1,1	1,1	0,6	0,4	-0,2	-0,6	-0,7	-1,0	-1,0	-0,9
1-year average difference of the MFI housing loans-to-GDP ratio (2-year annual average)	0,1	0,1	0,1	0,3	0,4	0,5	0,7	0,8	0,7	0,6	0,5	0,3	0,0	-0,3	-0,6	-0,8
Other indicators																
Gap between the housing loan flow and its fundamentals (2-markets disequilibrium model)	-15,6	-14,0	-16,3	-17,7	-15,3	-11,9	-4,5	4,5	10,1	17,7	20,8	24,3	26,3	20,6	14,8	10,5
1-year difference of the broad HH credit-to-GDP ratio (1-year moving sum of broad HH credit multiplied by 5, divided by 5-year moving sum of GDP)	2,6	2,9	2,8	2,5	2,7	2,4	2,1	1,8	1,2	0,8	0,9	1,6	1,9	2,1	2,1	
Ratio of pure new housing loans (4 quarters sum) to GDP (4 quarters sum)	2,8	2,7	2,7	2,8	2,6	2,6	2,8	3,0	3,4	3,5	3,5	3,5	3,4	3,4	3,2	3,1
Ratio of new housing loans including rollovers (4 quarters sum) to GDP (4 quarters sum)	3,1	3,1	3,0	3,1	3,0	3,0	3,2	3,3	3,7	3,8	3,9	3,9	3,8	3,8	3,7	3,5
Housing credit impulse (loan portfolio)	-0,1	0,1	-0,1	0,5	0,1	0,0	0,3	0,1	0,7	0,4	0,1	0,2	-0,2	0,1	-0,3	
Housing credit impulse (new loans)	-0,3	-0,1	-0,2	0,4	-0,4	0,0	0,7	0,6	1,7	0,4	0,2	-0,1	-0,4	0,1	-0,7	-0,6
1-year difference of the household debt service to income ratio	0,0	0,0	0,0	-0,1	0,0	0,1	0,1	0,1	0,0	-0,1	-0,1	-0,1	-0,1	0,0	0,3	
House prices																
1-year nominal growth of house prices	6,6	6,4	6,5	6,2	7,0	6,4	9,4	12,0	13,3	18,9	19,8	19,2	22,1	19,3	16,0	
1-year real growth of house prices (adjusted for HICP)	3,9	4,0	4,4	3,7	6,3	5,5	9,1	11,1	9,8	13,0	9,5	4,6	3,0	-1,8	-4,2	
1-year real average growth of house prices (3-year annual average, adjusted for HICP)	5,3	4,2	4,2	4,9	5,2	4,8	6,5	7,3	7,1	8,0	8,3	6,8	6,7	5,7	4,8	
1-year difference of the house price-to-rent ratio	1,0	-3,4	-3,0	-1,9	-2,1	3,1	2,0	3,2	5,3	4,7	7,7	3,4	-6,0	-4,1	-3,7	
1-year average difference of the house price-to-rent ratio (3-year annual average)	-0,2	-1,9	-1,7	-1,6	-1,1	-0,3	-0,6	0,3	1,4	1,5	2,2	1,6	-0,9	1,2	2,0	
1-year difference of the house price-to-income ratio	-3,2	-3,1	-3,4	-3,2	-0,8	0,1	3,1	5,5	3,5	5,1	4,8	2,3	5,0	4,1	1,8	
1-year average difference of the house price-to-income ratio (3-year annual average)	-1,8	-2,5	-2,8	-2,3	-2,0	-2,0	-0,9	0,2	-0,1	0,7	1,5	1,5	2,6	3,1	3,2	
Imbalance indicators																
Credit																
Gap between the broad credit to HH-to-GDP ratio and its long-term trend (Basel method)	-6,0	-5,7	-5,4	-5,4	-4,6	-4,2	-3,9	-3,9	-3,9	-4,0	-4,2	-4,3	-4,4	-4,7	-5,0	
Gap between the broad credit to HH-to-GDP ratio and its long-term trend (LT method)	-2,0	-1,8	-1,7	-1,9	-1,2	-1,1	-1,0	-1,2	-1,3	-1,4	-1,6	-1,7	-1,8	-2,0	-2,3	
Gap between the MFI credit to HH-to-GDP ratio and its long-term trend (LT method)	-1,8	-1,8	-1,8	-1,7	-1,3	-1,3	-1,2	-1,1	-1,3	-1,4	-1,6	-1,8	-1,8	-2,1	-2,3	-2,2
Gap between the MFI housing loans to HH-to-GDP ratio and its long-term trend	-0,6	-0,5	-0,5	-0,3	0,0	0,0	0,2	0,3	0,0	-0,1	-0,2	-0,4	-0,5	-0,7	-0,8	-0,8
House prices																
Median of house price overvaluation indicators	-1,9	-0,9	-0,9	-1,3	1,6	3,3	4,3	5,7	7,0	9,0	8,8	6,5	6,2	4,1	2,2	
Gap between the nominal HPI and its long-term trend (HP filter)	3,3	3,9	4,1	4,7	5,8	6,2	8,6	11,3	13,3	17,6	20,3	22,7	27,1	27,7	27,2	
Gap between the real HPI and its long-term trend (HP filter)	-2,5	-0,9	-0,9	-0,2	1,5	2,6	5,3	7,5	7,6	10,5	9,7	7,6	6,4	4,2	1,9	
Gap between the house price-to-income ratio and its long-term trend	-14,8	-14,8	-15,3	-16,6	-15,9	-17,3	-16,7	-14,8	-14,2	-10,2	-8,6	-8,8	-5,7	-3,9	-5,3	
Gap between the house price-to-rent ratio and its long-term trend	-15,6	-15,3	-14,2	-12,9	-11,0	-10,2	-7,9	-3,8	-0,7	4,0	7,8	5,3	6,0	3,9	2,5	
Gap between house prices and their long-term trend (1-market disequilibrium model)	-1,2	-0,9	-0,3	-2,3	1,7	5,5	3,4	4,3	9,0	9,9	18,2	22,1	27,1	28,5	23,5	
House price panel model	-0,9	-0,1	-0,9	-0,1	5,9	4,1	6,1	7,0	6,4	8,2	7,9	5,3	5,5	2,1	1,1	

Note: Values are rounded; stages of some indicators are evaluated based on the percentiles of their values, hence in some instances cells that have the same value may be coloured differently.

Housing lending slowed down, but house prices rose faster, thus, there no excess borrowing was observed.

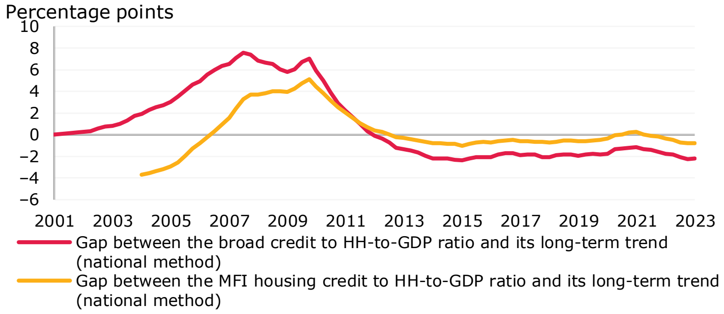
Chart 15. Housing credit developments
(Q1 2007–Q1 2023)



Sources: State data agency, Bank of Lithuania and Bank of Lithuania calculations.

There is no excess household lending.

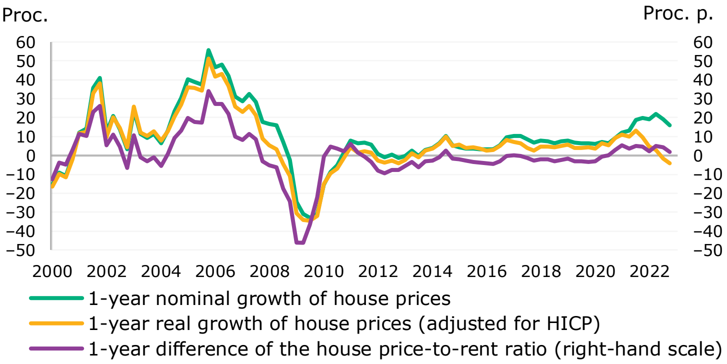
Chart 16. Household credit imbalances
(Q1 2001–Q1 2023)



Sources: State data agency and Bank of Lithuania.
Notes: the long-term trend is computed by applying a one-sided HP filter with a smoothing parameter of 400,000; before applying the filter, the ratio is modelled for the next 5-year window using a 4-quarter weighted average.

Housing affordability remained broadly unchanged amid a slowdown in house price growth and strong wage growth.

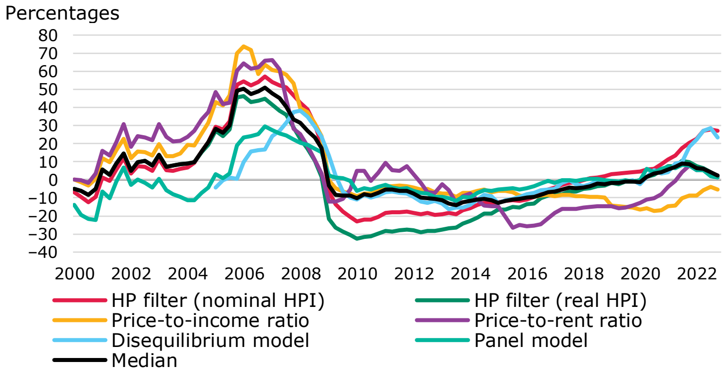
Chart 17. House price developments
(Q1 2000–Q4 2022)



Sources: State data agency and Bank of Lithuania calculations.

House prices continue to be slightly overvalued, but overvaluation has been decreasing lately.

Chart 18. Gap between actual house prices and their fundamental values (Q1 2000–Q4 2022)



Source: Bank of Lithuania calculations.