Quarterly assessment of the financial cycle in Lithuania

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

Introduction

The Financial Cycle Assessment for 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 (RE) markets, imbalances in the financial sector 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 this 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 tends to last longer than the business cycle and can significantly amplify economic booms and deepen recessions. The application of CCB 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.*

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. Cyclical risk is related to the evolution of the financial cycle: it rises and falls as the financial cycle unfolds, and is usually associated with changes in the supply of credit and in the risk assessment of financial system participants. Structural (systemic) risk arises from the structural features of the financial system, such as the interconnectedness of financial system participants, concentration and the specific nature of business models.*

Abbreviations

CCyB – counter-cyclical capital buffer

HPI – house price index

GDP – gross domestic product

EA – euro area

HP – *Hodrick-Prescott* filter

CRE – commercial real estate

NFC – non-financial corporations

RE – real estate

HH – households

MFI – monetary financial institutions (banks, credit unions)

NFPS – non-financial private sector

HCPI – harmonised consumer price index

GS – government securities

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

Key messages

In the second quarter of 2023, the financial cycle continued to decelerate, with a slowdown in the growth rates of both corporate lending and housing credit and persisting narrowed house price imbalances. The continued slowdown in credit has led to a decline in the financial cycle index based on both broad and MFI credit. Lending rates to both NFCs and HHs continued to weaken, with nominal growth in broad NFPS credit slowing to 15.4% and in MFI credit to 8.1%. At the same time, real growth rates remained negative, but were closer to zero than in the previous quarter. The flows of new loans remained sufficiently large and stable. The annual growth rate of housing prices continues to slow down but the price level itself has been stabilised. The declining borrowing requirement is also driven by a widening current account surplus for the second consecutive quarter (the current account-to-GDP ratio stood at 3% in the second quarter of 2023) due to lower commodity prices and an improving merchandise trade balance. The MFI loan-to-deposit ratio remains low (79%). Only limited imbalances in house prices, which remain slightly overvalued, are observed. According to the results of the latest Bank Lending Survey[2] conducted by the Bank of Lithuania, only demand for consumer loans and other needs grew in the second quarter of 2023 and demand is expected to stabilise or fall slightly in the future.

Corporate borrowing, both from credit institutions and other sources, has continued to decelerate, and banks expect demand for new loans from NFCs will further decline somewhat in the near future. The annual growth rate of the MFI corporate loan portfolio slowed further to 7% in the second quarter of 2023, while the growth rate of the broad credit portfolio remained significantly unchanged (down from 19.7% to 19.3%). In July, the annual growth rate of MFI corporate loan portfolio was the fifth highest in the EA as a whole (5.8%, against the EA average of just over 1% for the period). The second consecutive quarter also saw a slight (0.6%) portfolio contraction compared to the previous quarter. The slowdown in corporate lending is mainly due to slower lending to energy, construction and RE companies. Lending to small and medium-sized enterprises slowed further. The overall level of broad corporate credit is below the threshold for the build-up of imbalances, mainly due to a decline in the volume of long-term loans and trade credit relative to GDP. Demand for new loans by NFCs continued to decline, and several banks that participated in the survey identified a drop in demand for corporate loans in the second quarter of 2023, and a slight further decline is expected in the next quarter as well.

The CRE continues to be in the slowdown phase of the cycle, but no significant downturn is observed. As new lending to RE companies contracted by one-third and sales of commercial space are down by one-eighth year-on-year, prices of these premises have risen more slowly for the third consecutive quarter. Banks' expectations for further price developments are still negative, although only one-third of banks claimed they can see imbalances in the CRE market. The most vulnerable are retail and, geographically, commercial premises based in Klaipėda, where actual rentals remain significantly depressed in these market segments. With rental prices rising below inflation, the investment climate remains very weak. The spread between CRE and government securities, which has been declining over the past two quarters, remains large compared to the historical average. This shows that the market has not yet had time to adjust to the increased level of risk of CRE investments and that rental yields are expected to continue to rise in the medium term, exerting downward pressure on the prices of premises.

The growth rate of the household loan portfolio has continued to decrease, but has remained strong at the EA level, and banks do not expect significant changes in the demand for HH loans in the near future. The nominal annual growth of the MFI housing loan portfolio fell to 9% in the second quarter of 2023. On the other hand, the annual growth rate of the MFI housing loan portfolio recorded in July (8.5%) was the second fastest in the EA, with an

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

average growth rate of less than 1%. The slowdown in housing lending continues to be driven by a contraction in housing demand: the number of new housing loans in June was one fifth lower than a year ago and the value of the loan flow is down by more than 15%. On the other hand, the flow of consumer loans grew by almost 12% year-on-year, despite a slight decrease in the number of loans. This growth in consumer loans is likely to be due to higher prices for durable goods or the cost of home improvements and the increased need to install energy-efficient sources. Overall, there are no HH credit imbalances, with the gap in the ratio of HH loans to GDP remaining negative and broadly unchanged from its long-term trend. The results of the Bank Lending Survey disclosed that a minor increase in demand was recorded only in the segment of consumer loans, but no significant increases in demand is expected in the future.

The annual rate of house price growth continues to slow down, while overvaluation and imbalances are declining. According to different sources,[3] the annual rate of housing price growth in July 2023 stood at 7–8% and continued to slow down. It is true that the housing market cycle in Lithuania is at a slightly higher point than the EA average, with house price declines recorded in the fourth quarter of 2022 and the first quarter of 2023. 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 (4 percentage points less than in the first quarter of 2022). The ratios of the flow of new housing loans to GDP and the value of dwellings purchased to GDP have broadly returned to the pre-pandemic levels, which signals a reversal of the imbalances created in the market during the pandemic. Banks' expectations for residential RE prices have slightly deteriorated, with the majority expecting prices to decline and indicating that they see imbalances in the residential RE market.

In the context of downturn of the financial cycle and declining economic activity, it is important to maintain the current CCyB rate set during the upturn in the cycle in order to maintain the resilience of credit institutions in the event of cyclical risks. The CCyB rate for the third 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 cyclical risks materialising. For example, the release of the CCyB rate could be considered in situations where economic challenges, financial market shocks or a significant deterioration in credit quality would have a significant impact on the financial sector and could lead to an overall reduction in the supply of credit to the economy. Currently, despite the slowdown in activity, credit and RE markets remain active, the banking sector is profitable, there has been no significant deterioration in credit quality, and house price imbalances, even though smaller, still exist. 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.

[3] The Bank of Lithuania's Repeat Transactions House Price Index and the Ober-Haus House Price Index.

Financial cycle assessment

The financial cycle has continued to slow down, with a marked contraction in credit to MFIs. Only limited house price imbalances are observed.

Chart 1. Cyclical risk assessment matrix

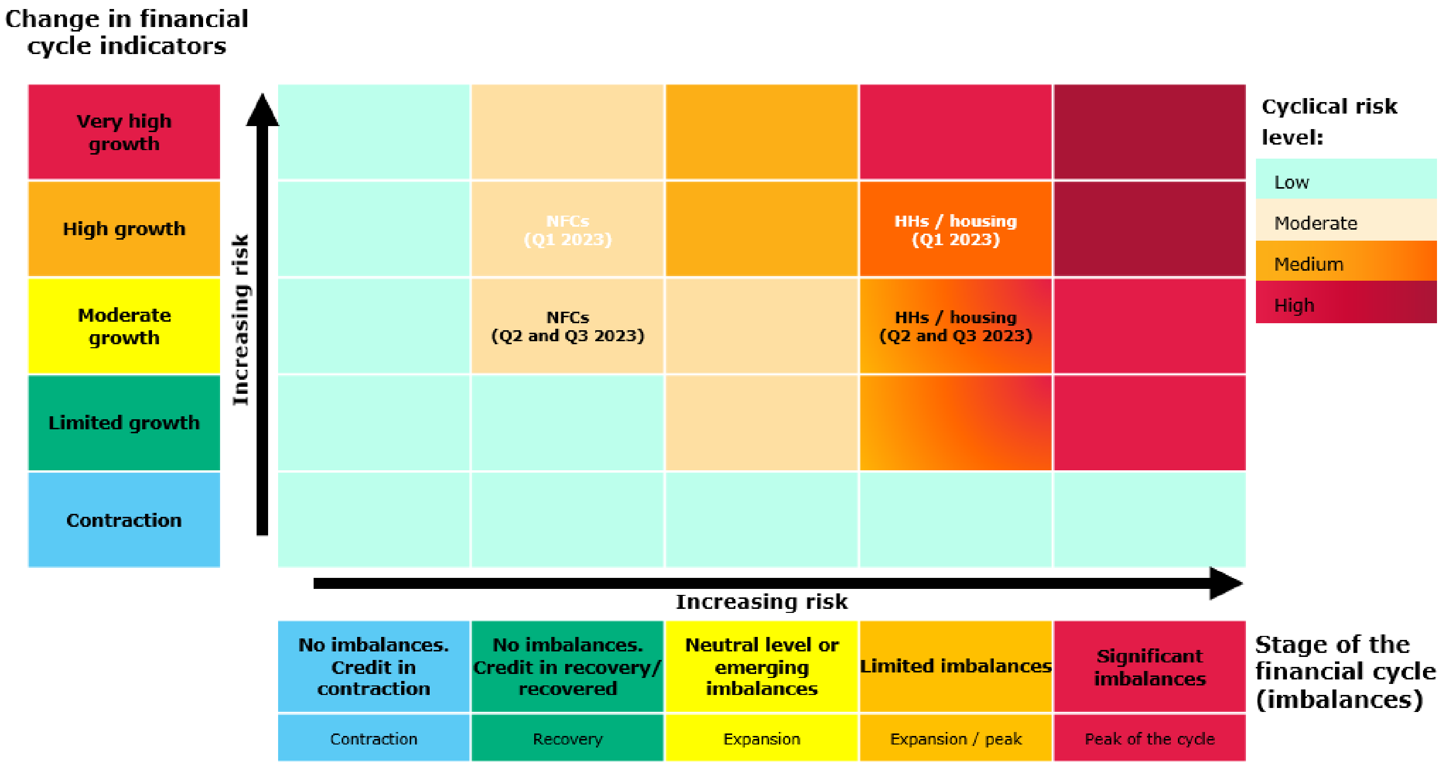


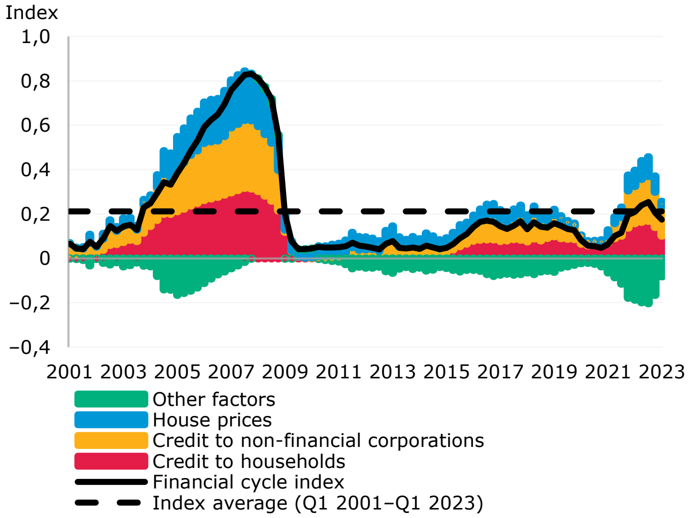
Chart 2. Heatmap of non-financial private sector credit growth, credit imbalances and composite financial cycle indicators (Q1 2019–Q2 2023, the latest data are marked by the black dashed line on the right)

	2019				2020				2021				2022				2023	
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II
Non-financial private sector																		
Growth indicators																		
Composite indicators																		
Domestic systemic risk indicator (*d-SRI*)	-0,15	-0,17	-0,21	-0,25	-0,30	-0,41	-0,43	-0,40	-0,33	-0,30	-0,20	-0,06	0,02	0,08	0,13	0,17	0,07	
Financial cycle index (new MFI loans)	0,08	0,05	0,04	0,03	0,03	0,03	0,03	0,05	0,07	0,08	0,11	0,14	0,14	0,13	0,13	0,11	0,07	
Financial cycle index (broad credit)	0,16	0,15	0,13	0,13	0,08	0,06	0,05	0,05	0,06	0,10	0,11	0,20	0,21	0,24	0,25	0,20	0,17	
Band-pass filtered financial cycle indicator	-0,05	-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	-0,06	
Nominal and real growth																		
1-year nominal growth of broad credit	9,2	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	16,5	15,4	
1-year nominal MFI credit growth	5,3	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	10,1	8,1
1-year real growth of broad credit	6,9	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	-1,3	
1-year real MFI credit growth	3,1	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	-2,4
1-year difference of the broad credit-to-GDP ratio	0,8	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	-0,7	
1-year difference of the MFI credit-to-GDP ratio	-1,0	-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	-2,1	-2,0
Other indicators																		
Relative credit flow indicator	0,04	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	0,01	
1-year difference of broad credit to NFPS-to-GDP ratio	8,6	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	25,0	
1-year difference of MFI credit to NFPS-to-GDP ratio	1,5	-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	5,0	2,7
Ratio of pure new loans (4 quarters sum) to GDP (4 quarters sum)	9,2	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	8,4	8,3
Ratio of new loans with rollovers (4 quarters sum) to GDP (4 quarters sum)	13,9	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	12,9	13,3
Non-financial private sector credit impulse (loan portfolio, first version)	-1,4	-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	-5,0	-2,5
Non-financial private sector credit impulse (loan portfolio, second version)	-0,9	-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	-5,9
Non-financial private sector credit impulse (flow of new loans)	1,2	-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	0,7	1,2
1-year difference of the non-financial private sector debt service to income ratio	0,5	-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	0,4	0,3	
2-year difference of the non-financial private sector debt service to income ratio	1,1	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	0,8	
Imbalance indicators																		
Gap between the broad credit to the NFPS-to-GDP ratio and its long-term trend (Basel method)	-10,8	-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	-7,5	-7,3	
Gap between the broad credit to the NFPS-to-GDP ratio and its long-term trend (LT method)	-4,0	-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	-3,8	
Gap between the MFI credit to the NFPS-to-GDP ratio and its long-term trend (LT method)	-5,3	-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	-5,7	-5,5
Gap between the broad credit to the NFPS-to-GDP ratio and its long-term trend (*State Space* method)	-1,7	-1,4	-2,5	-4,5	-6,6	-8,1	-8,4	-9,8	-9,4	-10,6	-11,6	-9,5	-10,8	-9,3	-10,6	-13,3	-14,0	
Other indicators																		
Capital adequacy ratio	19,7	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	20,4	20,4	
Leverage ratio of banks	7,6	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	6,2	
Loan-to-deposit ratio	96,0	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	81,2	79,9	79,1	79,3
Current account balance-to-GDP ratio	1,3	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	-3,6	-1,2

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.

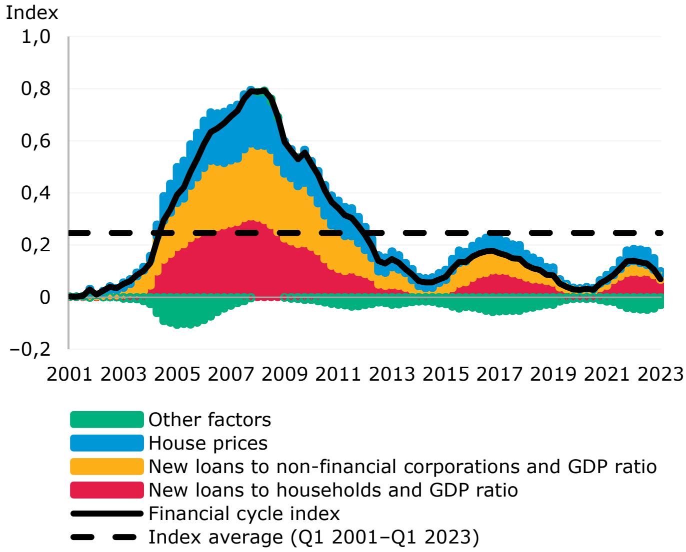
A further slowdown in corporate borrowing from credit institutions, as well as the subsiding housing credit, led to a decline in both the broad-based and the MFI credit-based financial cycle index.

Chart 3. Lithuania's financial cycle index and its drivers (broad credit, Q1 2001 – Q1 2023)



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.

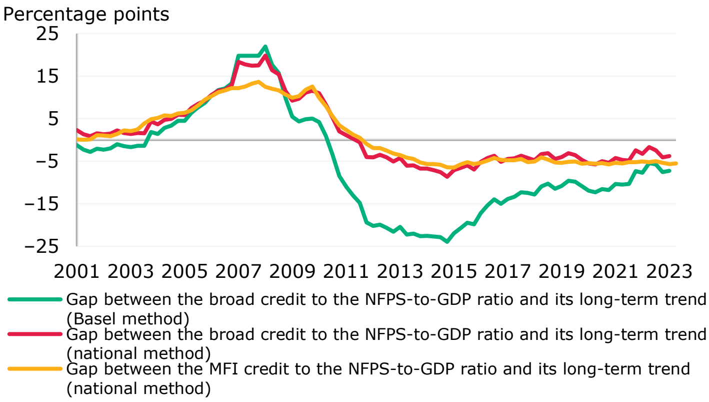
Chart 4. Lithuania's financial cycle index and its drivers (MFI loans, Q1 2001 – Q1 2023)



Sources: State data agency and Bank of Lithuania.

The NFPS credit volume in the economy slightly contracted and no credit imbalances were observed.

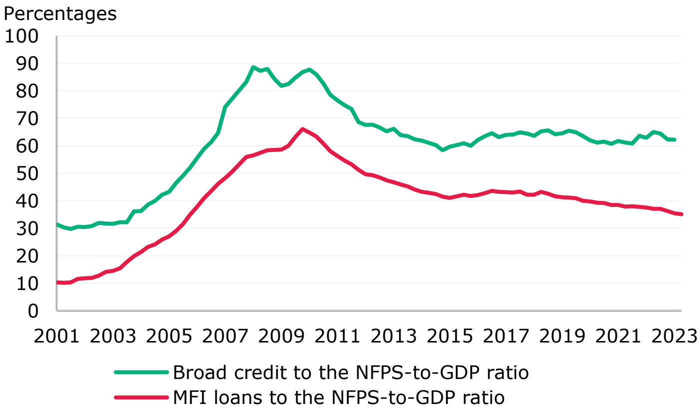
Chart 5. Credit and MFI loans to the NFPS to GDP ratio gap (Q1 2001 – Q2 2023)



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.

Only the indebtedness of the NFPS to MFIs fell further.

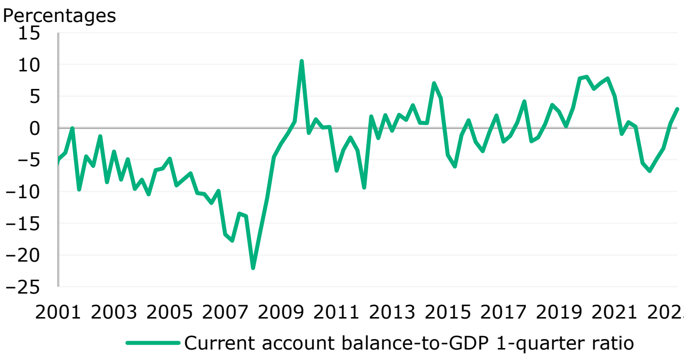
Chart 6. Credit and MFI loans to the NFPS to GDP ratios (Q1 2001 – Q2 2023)



Sources: State data agency and Bank of Lithuania.

With current account surpluses continuing to widen, the need to borrow tends to further shrink.

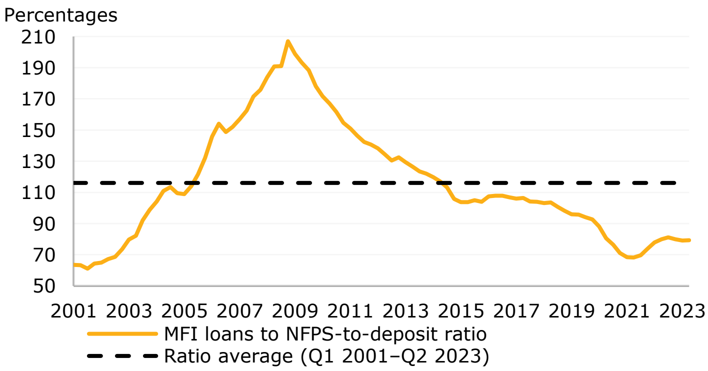
Chart 7. Current account-to-GDP ratio (Q1 2001 – Q2 2023)



Sources: State data agency and Bank of Lithuania.

The MFI loan-to-deposit ratio remains low due to the slowdown in credit and current account surplus.

Chart 8 Ratio of MFI loans to the NFPS to deposits (Q1 2001 – Q2 2023)



Sources: State data agency and Bank of Lithuania.

Non-financial corporation sector

Corporate borrowing from MFIs continued to decline and reached its normal pace, while total corporate borrowing (broad credit) underwent only minor change.

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

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

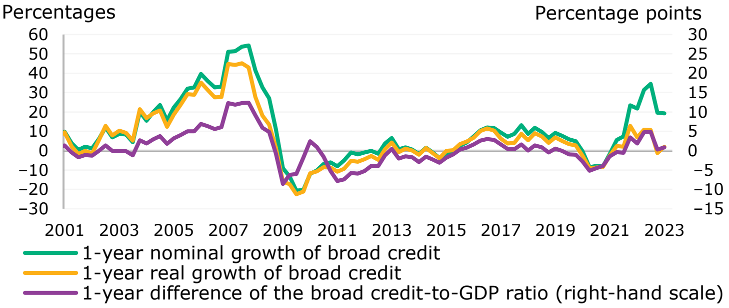
	2019				2020				2021				2022				2023	
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II
Non-financial corporations sector																		
Growth indicators																		
Credit to NFCs nominal and real growth																		
1-year nominal growth of broad credit	9,2	7,7	5,8	4,9	-0,2	-8,5	-7,9	-8,1	-1,8	5,6	7,3	23,4	21,7	31,4	34,5	19,7	19,3	
1-year nominal growth of broad and trade credit	9,4	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	11,2	14,0	
1-year nominal MFI credit growth	1,9	-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	7,0
1-year real growth of broad credit	6,9	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	-1,2	2,0	
1-year real growth of broad and trade credit	7,2	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	-8,2	-2,5	
1-year real MFI credit growth	-0,2	-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	-5,9	-3,3
1-year difference of the broad credit-to-GDP ratio	0,5	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	0,2	0,9	
1-year difference of the broad and trade credit-to-GDP ratio	1,1	-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	-4,7	-1,6	
1-year difference of the MFI credit-to-GDP ratio	-1,1	-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	-0,9	-1,0
CRE credit nominal growth																		
1-year nominal growth of CRE credit	-0,2	1,7	-0,5	-6,5	-2,7	-6,0	-7,2	-0,4	-0,8	0,7	7,0	8,0	10,7	9,8	9,2	12,2	5,3	
Other indicators																		
1-year difference of broad NFC credit-to-GDP ratio	6,2	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	25,0	24,1	
Ratio of pure new loans (4 quarters sum) to GDP (4 quarters sum)	5,2	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	4,1
Ratio of new loans (including rollovers) to GDP	9,3	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	7,9	8,4
NFC credit impulse (MFI loan portfolio)	-1,3	-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	-4,1	-1,5
NFC credit impulse (flow of new MFI loans)	1,7	-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	1,2	1,7
1-year difference of NFC debt to income ratio	1,5	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	6,2	5,5	
1-year difference of ratio of NFC liabilities to assets	-8,7	-7,1	-3,7	-4,5	-1,5	-10,3	-12,0	-12,8	-12,3	-5,5	-1,9	4,5	4,4	16,4	19,6	12,0	13,9	
1-year difference of the NFC debt service to income (profit) ratio	1,4	-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	7,2	1,8	0,9	
Imbalance indicators																		
Credit to NFCs																		
Plataus kredito NFĮ ir BVP santykio atotrūkis nuo ilgalaikės tendencijos (Bazelio metodas)	-4,5	-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	-2,4	-2,1	
Plataus kredito NFĮ ir BVP santykio atotrūkis nuo ilgalaikės tendencijos (LT metodas)	-1,9	-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	-1,7	-1,4	
PFĮ kredito NFĮ ir BVP santykio atotrūkis nuo ilgalaikės tendencijos (LT metodas)	-3,4	-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	-3,4
NFĮ skolos ir nuosavybės santykis	45,7	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	43,3	43,4	
NFĮ trumpalaikių įsipareigojimų ir trumpalaikio turto santykis	37,1	38,5	37,1	34,3	35,6	28,3	25,2	21,5	23,3	22,8	23,3	26,0	27,7	39,2	42,9	37,9	41,6	
NFĮ skolos tvarkymo ir pajamų (pelno) santykis	21,5	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	21,2	21,1	
CRE credit																		
Deviation between current and historical CRE yield and government bond spread	139,4	139,4	139,4	139,4	187,1	187,1	187,1	187,1	162,5	162,5	162,5	162,5	87,1	-35,6	-122,7	-249,3	-243,7	-202,7

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.

Corporate borrowing from credit institutions slowed down, while total indebtedness remained significantly unchanged.

Chart 10. Corporate credit developments

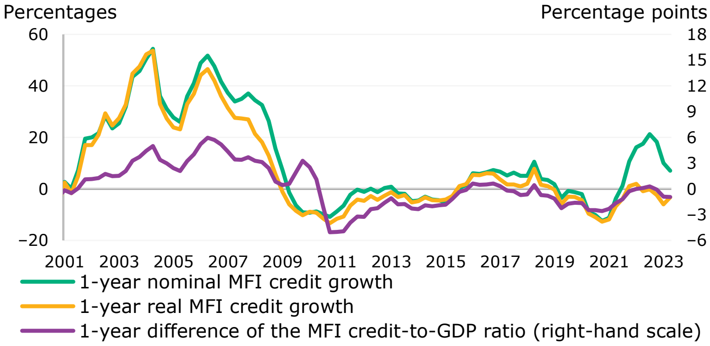
(Q1 2001 – Q1 2023)



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

Chart 11. Developments in corporate borrowing from MFIs

(Q1 2001 – Q2 2023)

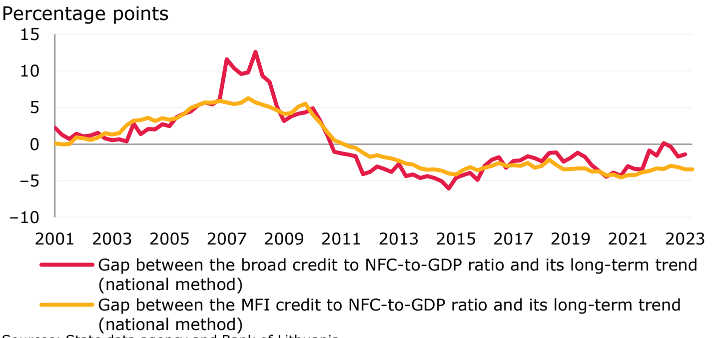


Sources: State data agency, Bank of Lithuania and Bank of Lithuania calculations.

The levels of both broad corporate credit and MFI credits are below the threshold for the build-up of imbalances.

Chart 12. Corporate credit imbalances

(Q1 2001 – Q2 2023)



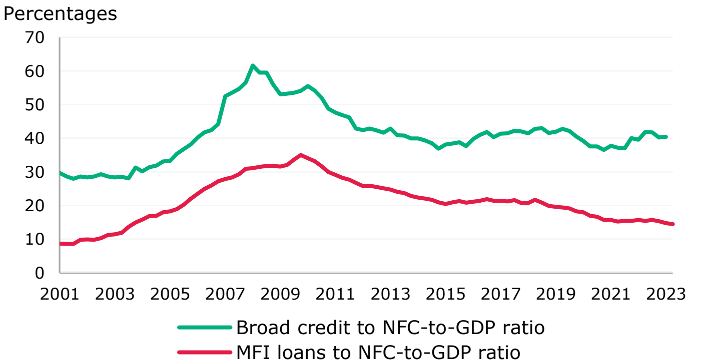
Sources: State data agency and Bank of Lithuania.

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.

Corporate indebtedness to credit institutions slightly declined, while total indebtedness remained basically unchanged.

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

(Q1 2001 – Q2 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

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

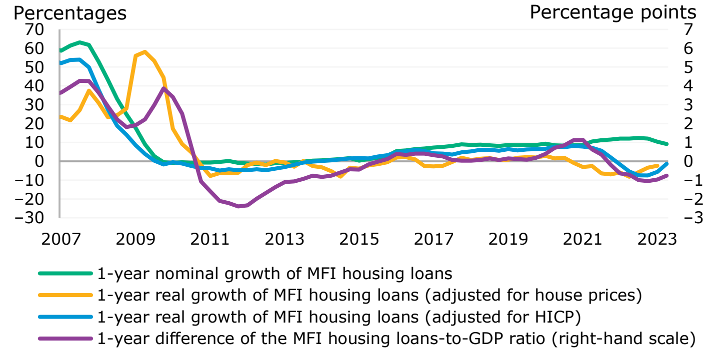
	2019				2020				2021				2022				2023	
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II
Household / housing sector																		
Growth indicators																		
Housing credit nominal and real growth																		
1-year nominal growth of MFI housing loans	8,7	8,5	8,7	8,6	9,3	8,6	8,4	8,5	8,6	10,5	11,2	11,6	12,1	12,0	12,4	12,1	10,4	9,2
1-year real growth of MFI housing loans (adjusted for housing prices)	0,8	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	-2,4	
1-year real growth of MFI housing loans (adjusted for HICP)	6,5	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	-5,6	-1,4
1-year difference of the MFI housing loans-to-GDP ratio	0,1	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	-1,0	-0,8
Other indicators																		
Gap between the housing loan flow and its fundamentals (2-markets disequilibrium model)	-14,2	-15,7	-14,1	-16,4	-17,9	-15,5	-12,2	-4,7	4,4	10,1	17,8	21,1	24,6	26,6	21,0	15,3	10,2	5,5
1-year difference of the broad HH credit-to-GDP ratio	2,4	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	2,0	0,9	
Ratio of pure new housing loans (4 quarters sum) to GDP (4 quarters sum)	2,9	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	2,9
Ratio of new housing loans including rollovers (4 quarters sum) to GDP (4 quarters sum)	3,2	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	3,4
Housing credit impulse (loan portfolio)	0,3	-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	-1,0	
Housing credit impulse (new loans)	-0,1	-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	-0,7	-0,6
1-year difference of the household debt service to income ratio	0,0	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	0,2	0,3	
House prices nominal and real growth																		
1-year nominal growth of house prices	7,9	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	13,1	
1-year real growth of house prices (adjusted for HICP)	5,7	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	-3,3	
1-year difference of the house price-to-rent ratio	-0,5	1,0	-3,4	-3,0	-1,9	-2,1	3,1	2,0	3,2	5,3	4,7	7,7	3,3	-5,7	-4,2	-3,8	-1,7	3,4
1-year difference of the house price-to-income ratio	-1,6	-3,2	-3,1	-3,4	-3,2	-0,8	0,1	3,1	5,5	3,5	5,1	4,8	2,4	5,1	4,0	1,7	-4,2	
Imbalance indicators																		
Housing credit																		
Gap between the broad credit to HH-to-GDP ratio and its long-term trend (Basel method)	-6,3	-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	-5,1	-5,2	
Gap between the broad credit to HH-to-GDP ratio and its long-term trend (LT method)	-2,1	-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	-2,4	-2,4	
Gap between the MFI credit to HH-to-GDP ratio and its long-term trend (LT method)	-2,0	-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	-2,1
Gap between the MFI housing loans to HH-to-GDP ratio and its long-term trend (LT method)	-0,6	-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	-0,8
House prices																		
Average of house price overvaluation indicators	-4,9	-5,3	-4,7	-4,6	-4,6	-2,0	-1,5	-0,2	1,9	3,6	6,7	9,2	9,1	11,1	10,4	8,5	8,1	
Median of house price overvaluation indicators	-1,6	-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	2,4	
Gap between the nominal HPI and its long-term trend (HP filter)	3,1	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	26,7	
Gap between the real HPI and its long-term trend (HP filter)	-1,7	-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	1,8	
Gap between the house price-to-income ratio and its long-term trend	-14,3	-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	-6,4	
Gap between the house price-to-rent ratio and its long-term trend	-14,5	-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	2,8	
Gap between house prices and their long-term trend (1-market disequilibrium model)	-1,5	-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	22,0	
House price panel model	-0,5	-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	1,9	

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.

The annual growth rate of house prices continued to outpace the growth rate of housing credit, thus, no excess borrowing was observed.

Chart 15. Corporate credit developments

(Q1 2007 – Q2 2023)

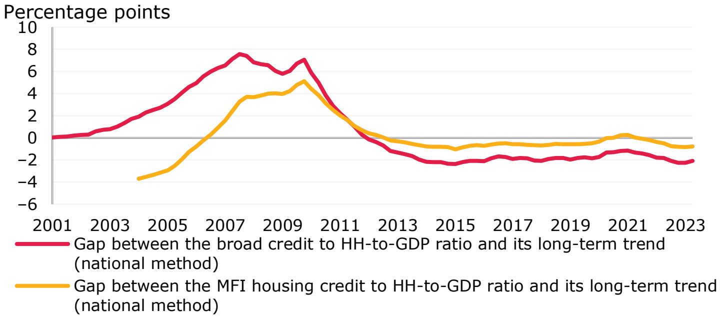


Sources: State data agency, Bank of Lithuania and Bank of Lithuania calculations.

No excess household lending.

Chart 16. Household credit imbalances

(Q1 2001 – Q2 2023)



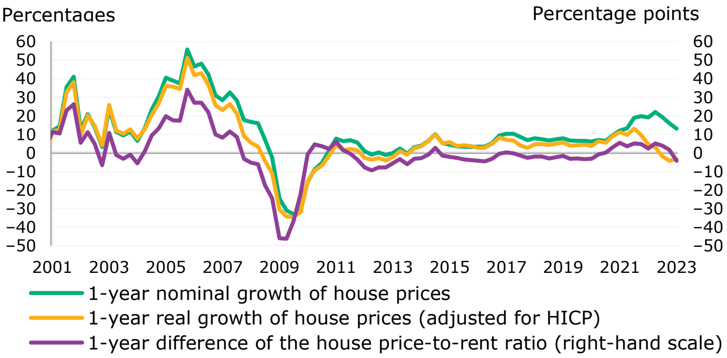
Sources: State data agency and Bank of Lithuania.

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.

The slowdown in house price growth and the rapid rise in wages have kept housing affordability broadly stable.

Chart 17. House price index

(Q1 2001 – Q1 2023)

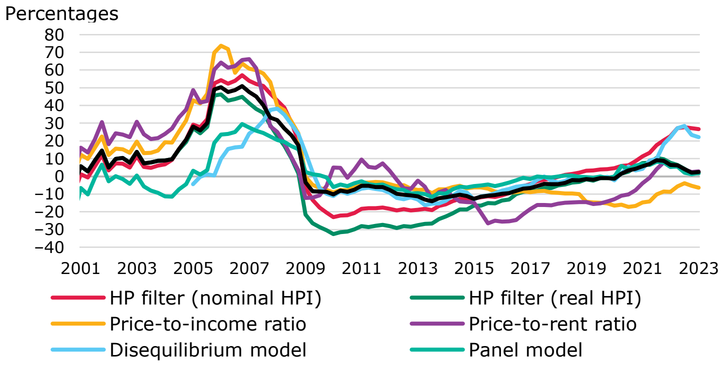


Sources: State data agency and Bank of Lithuania calculations.

House prices remain somewhat overvalued, but imbalances have almost returned to a sustainable level.

Chart 18. Gap between actual house prices and their fundamental values

(Q1 2001 – Q1 2023)



Source: Bank of Lithuania calculations.