COUNTERCYCLICAL CAPITAL BUFFER
BACKGROUND MATERIAL FOR DECISION

2018

March
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>CCB</td>
<td>counter-cyclical capital buffer</td>
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<tr>
<td>RLR</td>
<td>Responsible Lending Regulations</td>
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<td>BCBS</td>
<td>Basel Committee on Banking Supervision</td>
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<td>HPI</td>
<td>Housing price index, calculated by Statistics Lithuania</td>
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<tr>
<td>GDP</td>
<td>gross domestic product</td>
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<td>DSTI</td>
<td>ratio debt service-to-income ratio</td>
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<td>ECB</td>
<td>European Central Bank</td>
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<td>EEA</td>
<td>European Economic Area</td>
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<td>ESRB</td>
<td>European Systemic Risk Board</td>
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<td>CRD IV</td>
<td>Capital Requirements Directive IV</td>
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<td>RE</td>
<td>real estate</td>
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<td>MFI</td>
<td>monetary financial institution (banks and credit unions)</td>
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This 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 website [www.lb.lt](http://www.lb.lt).

Unless otherwise specified, data up to 31 December 2017 was used.

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

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The decision basis for setting the countercyclical capital buffer rate

On March 2018, the Board of the Bank of Lithuania took a decision to leave the CCB rate unchanged, at 0.5 per cent set in December 2017. It will come into effect on 31 December 2018. Such a decision was taken in view of the trends in the domestic financial system and economy, leading and additional indicators for setting the CCB as well as based on the analysis of the lending and RE market carried out, which shows that there are no financial system imbalances yet and the time for accumulating the reserves to ensure the resilience of the financial system is right. Despite some moderation in the growth rate of the credit and RE market, the RE market remains active and housing credit keeps up growing. In times of the emergence of limited risk, when credit and RE market activity is high, the domestic economy is growing and credit institutions post high profitability, the aim should be to have accumulated the CCB of at least 1 per cent. Hence, if the economic expansion and financial system trends do not moderate significantly in the near future, in the second half of 2018 the CCB rate could be set at 1 per cent.

The portfolio of loans to the private non-financial sector continued growing in Lithuania in 2017. The growth of the housing loan portfolio accelerated in 2017, to 8.1 per cent at the end of the year, while the role of credit in the housing market continued to be significant. Growth in the portfolio of corporate loans remained positive during the year, at 5.4 per cent. The future expectations of the private non-financial sector have been improving, household income growing, unemployment decreasing; non-financial corporations earn higher profits and plan business expansion. In view of the above, the demand for borrowing from banks is likely not to fall further, while the loan portfolio will grow, yet its growth is not likely to outpace the overall economic growth.

Housing market activity has stabilised albeit posting increasing differentials across the regions in the country. According to the Centre of Registers, throughout 2017, 0.9 per cent more housing was assigned in Lithuania than in 2016. In Vilnius and Klaipėda, which are characterised by the highest relative market activity, fewer housing transactions were concluded in 2017 than in 2016 (5.9% and 1.7% respectively), while in Kaunas and the rest of Lithuania, 3.5 per cent and 4.1 per cent more housing was sold respectively. As a result of moderation in the growth rate of housing market activity, there was an increase in the number of flats built but unsold. In response, builders slackened pace: in 2017, 13 per cent fewer new houses were built than in 2016. According to the most recent data of Statistics Lithuania, in Q3 2017, housing prices in the country soared 8.5 per cent year on year. As housing transactions stopped growing in number, the growth in housing prices is likely to moderate.

The gap between the credit-to-GDP ratio and its long-term trend narrowed somewhat over Q3 2017 as growth in loans to the private sector outpaced GDP growth; however, it remained negative. Other indicators used to assess the build-up of financial system imbalances have displayed no warning signs either. For example, following the last year’s increase, the loan-to-deposit ratio dropped in the second half of 2017, to 104.2 per cent at the end of the year, while the current account balance became positive towards the end of the year. Furthermore, the composite early warning indicators of crises were close to the zero mark, showing that the probability of a systemic crisis was low.

* Resolution of the Board of the Bank of Lithuania of 29 March 2018 No 03-49 on the application of the countercyclical capital buffer.
**Unsold flats in the primary market include those completed and under construction.

LENDING AND REAL ESTATE MARKET DYNAMICS

In Q4 2017, the portfolio of loans granted by MFI in Lithuania continued to grow. In December 2017, the portfolio of loans to the private non-financial sector was by 6.5 per cent larger year on year. On the other hand, the credit impulse, which shows the momentum of loan portfolio growth, has been increasingly shifting to the negative territory (−0.7 p.p. in Q4 2017), signalling that credit market growth is progressively weaker. The major contribution to its weaker growth stemmed from non-financial corporations engaged in the energy activity that significantly reduced their existing liabilities over 2017. Growth in consumer loans moderated as well. The overall growth in the loan portfolio is mainly supported by housing loans – it is the only segment that has been maintaining strong growth for some time in a rather stable manner, which is among the strongest in the EU.

The growth rate of borrowing for house purchase remains high. Over 2017, the housing loan portfolio expanded by 8.1 per cent, while the net flow of new housing loans increased by 11.8 per cent. The portfolio of these loans has been posting similar growth already for more than six months, while the housing loan portfolio has been expanding since the end of 2013. The contribution to this strong growth in housing loans stemmed from the consumer expecta-

1 The liabilities of energy companies to credit institutions contracted by EUR 333.0 million and the sector’s share in the overall portfolio of loans to non-financial undertakings shrank from 8.7 per cent to 4.1 per cent over 2017.
tions remaining above the long-term average for the last few years running, the improving financial situation of house-
holds and decreasing unemployment, as well as rising wages. Moreover, banks’ lending conditions were quite favour-
able in recent years; e.g. the loan-to-value ratio of new loans was nearing the limit established in the Responsible
Lending Regulations (in mid-2017, the average ratio was 80%, while the established limit is 85%). Interest rates on
residential mortgage loans continued to be record low. In the last three years they ranged between 1.9 per cent and
2.1 per cent, and were among the lowest in the EU.

In 2017, the annual growth rate of the portfolio of loans to non-financial undertakings fluctuated significantly,
partly affected by isolated large lending transactions. The portfolio of loans granted to this sector swelled by 5.4
per cent over the year. For example, the portfolio of loans granted to non-financial corporations engaged in profes-
sional, scientific and technical activities grew by EUR 145.0 million over the year, posting the largest positive change
among all of the economic activities. Liabilities of non-financial corporations engaged in administrative and support
service activities increased substantially as well (by EUR 113.1 million). Among the businesses that generate high
value added for the domestic economy, trade enterprises enlarged the loan portfolio the most (by EUR 127.4 million).
However, the energy sector, whose loan portfolio contracted by EUR 333.0 million, i.e. nearly halved, in 2017, due to
the repayment of some large loans, prevented any stronger growth in the entire portfolio of loans to non-financial

Housing market activity in Lithuania intensified just marginally over 2017, with increasing differentials across
the regions in the country. According to the Centre of Registers, throughout 2017, 44.8 thousand houses were
assigned in Lithuania, an increase of 1.9 per cent over the year. The dynamics of housing market activity varied
across the regions: in Vilnius and Klaipėda, which are characterised by the highest relative market activity, fewer
housing transactions were made in 2017 compared to 2016 (a decrease of 5.9% and 1.7% respectively), whereas in
Kaunas and the rest of Lithuania, 3.5 per cent and 4.1 per cent more houses were sold respectively. Over 2017, the
most pronounced fall in the number of transactions was recorded in the new flats segment in Vilnius: according to
UAB Eika, 3.8 thousand flats built or still under construction were sold directly from the builders in the capital over
the year, a year-on-year decrease of 9.5 per cent.

In the second half of 2017, the growth rate of house prices started moderating. According to the latest data of
Statistics Lithuania, in Q3 2017 house prices in the country were by 8.5 per cent higher year on year. Quarter on
quarter, the growth rate of housing prices moderated by 1.7 p.p. Reflecting the RE market activity developments, price
increase differentials across the regions in Lithuania became even more substantial over Q4 2017 as well. According
to the Centre of Registers, the prices for flats older than 2 years in Kaunas, Klaipėda, Šiauliai, Panevėžys and the
regional centres rose the most over the above-named period: compared to Q4 2016, for relatively old flats in these
locations the buyers paid respectively 13.9 per cent and 14.0 per cent more. In Vilnius, the prices for relatively old flats
soared not that much (6.0%). As housing transactions stopped increasing in number, growth in housing prices is likely
to moderate. The proof to that is the more recent data that are submitted by both the Centre of Registers and private
market participants: according to the Centre of Registers, in Q4 2017, the buyers paid 3.7 per cent more for flats
across Lithuania year on year. According to Ober-Haus, the flats in Lithuania’s largest cities became more expensive
by 3.6 per cent over 2017, while the flat prices specified in the ads of Aruodas.lt in Lithuania soared 2.1 per cent over
2017.

With housing market activity less intensive than before, the number of flats built and not yet sold in Vilnius
doubled over 2017, while in all of Lithuania the number of housing units completed fell by a tenth from last
year. According to Statistics Lithuania, 11.0 thousand new homes were completed in all of Lithuania. Compared to
the previous year, the supply of new housing fell by 13.1 per cent. The number of completed flats in multi-family apart-
ment houses fell the most (22.3%): 4.0 thousand of them were built over 2017. Completed housing in single-family homes decreased by 6.7 per cent in number, to 7.0 thousand. In terms of the types of homes completed over the
year, single-family houses comprised almost two thirds of the entire housing supply (63.6%), and this share was the
largest since 2012. With the popularity of the construction of individual houses not waning, the number of unsold new
flats in already built multi-family apartment houses grew significantly. According to UAB Eika, RE developers in Vilnius
did not sell 1 thousand flats in completed buildings in 2017. The supply of completed flats doubled from Q4 2016 and
was the largest since Q3 2010. Considering the flats offered for sale but not yet completed, RE developers in Vilnius
may expect to sell all of the new flats over 14 months if the flat supply does not increase and the demand trends
remain unchanged. This indicator, revealing the primary housing market liquidity in Vilnius, at the end of Q4 2017
showed that, with a decline in the number of new housing transactions and an increase in the number of flats offered
for sale, the likely duration of the sale of new flats was almost by a third longer than the year before, when selling all of
the new flats would have taken 11 months.

The increase in unsold flats in Vilnius entailed lower expectations of market participants about the prices for
new flats. Based on the results of the survey of RE market participants conducted by the Bank of Lithuania at the end
of 2017, most of the respondents expected a moderate decline (up to 5%) in the prices of new flats in Vilnius over the
next 12 months. Provisional data of the survey of banks conducted at the beginning of 2018 shows that most banks
believed that flat prices over the next 12 months would not change. Such changes in the opinions of the surveyed
occurred over the second half of 2017, as most of the respondents in the surveys of RE market participants and banks

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Conducted as early as Q2 2017 expected just marginal price increases. Furthermore, the results of the surveys of banks and RE market participants revealed that about half of the surveyed reported they saw some RE market imbalances.

Most indicators that are used in the assessment of the build-up of financial system imbalances do not signal excess cyclical risk. In Q3 2017, the gap between the credit-to-GDP ratio and its long-term trend narrowed somewhat quarter on quarter yet further remained negative and, subject to the evaluation method, amounted to −3.3\(^2\) p. p. and −12.0\(^3\) p. p. The absence of the build-up of financial system imbalances is also reflected in the improved relative indicators of loans and deposits, as well as of house prices and income. For example, at the end of 2017, the loan-to-deposit ratio was 104.2 per cent. Over the year, it fell by 2.7 p.p., while the ratio of housing prices to income went down by 0.5 per cent during Q3 2016–Q3 2017 (to 87.8 per cent of the 2010-level). Furthermore, the current account balance in Lithuania became positive towards the end of the year. ‘The Countercyclical Capital Buffer. Background Material for Decision’, published by the Bank of Lithuania in December 2017,\(^4\) sets the aim to have the accumulated CCB of about 1 per cent when economic and credit growth is sustainable. Hence, raising the CCB is likely in the second half of 2018, especially if the existing growth trends persist.

Annex 1. Housing market and credit trends

**Chart 1. Annual growth of portfolio of loans to non-financial corporations and households**

(December 2016–December 2017)

**Chart 2. Annual growth of portfolio of loans to non-financial corporations by branch of economy**

(December 2016–December 2017)

**Chart 3. Flow of new housing loans**

(December 2016–December 2017)

**Chart 4. Annual developments of MFI loans to non-financial corporations and nominal GDP**

(Q4 2015 and Q4 2016)

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\(^2\) Using the forecast-augmented method.

\(^3\) Using the Basel method.

Chart 5. Amount of flat and house transactions and new housing loans (January 2005 – December 2017)

Sources: ECB and Bank of Lithuania calculations.

Chart 6. Annual growth in housing prices according to different sources (Q1 2007 – Q3 2017)

Sources: Statistics Lithuania and Bank of Lithuania calculations.

Chart 7. Number of housing transactions and annual change in the housing price index (Q1 2010 – Q4 2017)

Sources: State Enterprise Centre of Registers, Statistics Lithuania.

Chart 8. Liquidity within new flats market in Vilnius (Q1 2009 – Q4 2017)

Sources: UAB Eika and Bank of Lithuania calculations.

Note: The liquidity ratio indicates how much time it would take for developers to sell apartments offered for sale if the demand remained the same and no more apartments were built.
Chart 9. Gap between investment in housing and other buildings, compared to GDP, and long-term average
(Q1 2000–Q3 2017)

Percentages

Sources: Statistics Lithuania and Bank of Lithuania calculations.
Annex 2. Indicators warning 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 2018)

Chart B. Leading indicator I: Credit to the private non-financial sector-to-GDP gap (calculated in accordance with the standardised Basel method)
(Q1 2001–Q3 2017)

Chart C. Leading indicator II: Credit to the private non-financial sector-to-GDP gap (calculating using the forecast-augmented method)
(Q1 2001–Q3 2017)

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 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.

Sources: Statistics Lithuania and Bank of Lithuania calculations.
Note: 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 E. Additional indicator II: Housing prices-to-household income ratio gap (calculated using the forecast-augmented method) (Q1 2001–Q3 2017)

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 2017)

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 data covering the period of moderate changes in the ratio, excluding Q2 2016–Q4 2011 data.

Chart G. Additional indicator IV: Current account balance (4-quarter moving sums)-to-GDP ratio (Q1 1997–Q3 2017)

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 H. Credit and nominal GDP moving dynamics (Q1 2005–Q3 2017; nominal GDP growth – until Q4 2017)

Sources: Statistics Lithuania and Bank of Lithuania calculations.