



NÁRODNÁ BANKA SLOVENSKA
EUBOSYEM

A horizontal band across the top of the page features a semi-transparent image of Euro banknotes and coins. On the left, a large 20 Euro coin is prominent, with a 10 Euro coin and a 5 Euro coin partially visible behind it. To the right, a 100 Euro banknote is shown, and further right, a 500 Euro banknote is visible. The background of the entire page is a solid dark red color.

QUARTERLY COMMENTARY ON MACROPRUDENTIAL POLICY

JULY 2017

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Foreword

Financial system stability is essential for a well-functioning economy. It encompasses many areas, ranging from the security of bank deposits and other similar products to the smooth-functioning of the lending market based on the responsible approach of financial institutions and their customers. The purpose of macroprudential policy is to contribute to financial stability, in particular by strengthening the financial sector's resilience during good times, when risks are typically still at an early stage. This purpose also entails preventing the build-up of systemic risks, so as to make the economy less vulnerable in crisis periods.

Macroprudential policy in Slovakia is implemented primarily by Národná banka Slovenska (NBS), with its formal obligation in this regard laid down in Act No 747/2004 Coll. on financial market supervision. In implementing this policy, NBS may use any of several tools (from mitigating a specific risk to increasing capital requirements across the board), and may apply them in different ways (from issuing risk warnings to laying down statutory obligations).¹ The European Central Bank (ECB) has the power to impose further, stricter macroprudential policy settings.

A key element of macroprudential policy implementation is the regular quarterly assessment of developments in the area of financial stability, and any ensuing decision of the NBS Bank Board to apply a specific instrument. The fulfilment of the core objective, i.e. the maintenance of financial stability, is assessed through the monitoring of five intermediate objectives:²

1. to mitigate and prevent excessive credit growth and leverage;
2. to mitigate and prevent excessive maturity mismatch and market illiquidity;
3. to limit direct and indirect exposure concentrations;
4. to limit the systemic impact of misaligned incentives with a view to reducing moral hazard;
5. to strengthen the resilience of financial infrastructures.

The **first intermediate objective** is to prevent excessive credit growth and leverage, which has been generally identified as a key driver of the financial and economic crisis. This is a particularly important objective in Slovakia, owing to the traditional nature of the financial market in this country. Most of the significant trends, as well as risks, in the domestic banking sector are related to the market in lending to households and enterprises. Looking at loans to the domestic economy as a share of total assets, the ratio in Slovakia is one of the highest of any country, with banks earning the bulk of their income from such lending.

The **second intermediate objective** relates to excessive maturity mismatch in the assets and liabilities of bank balance sheets. In other words, the maturity of banks' assets should not differ significantly from the maturity of their funding liabilities. Although the role of banks is to intermediate the funding of long-term assets (loans) with short-term liabilities (deposits), experience has shown that an excessive maturity mismatch between assets and liabilities makes the financial system more vulnerable and contributes to a build-up of economic and financial imbalances.

¹ Further details about these instruments can be found on the NBS website, at <http://www.nbs.sk/en/financial-market-supervision1/macroprudential-policy>

² The intermediate objectives are set out in line with Recommendation No ESRB/2013/1 of the European Systemic Risk Board of 4 April 2013 on intermediate objectives and instruments of macro-prudential policy.

The **third intermediate objective** is to limit direct and indirect exposure concentrations. Direct concentration risk typically arises from significant exposures to, for example, households, general government, or certain sectors of the economy. Indirect exposures arise from the interconnectedness of financial and non-financial institutions. Elevated concentration is a long-standing structural feature of the domestic financial sector. This is largely attributable to the structure of the Slovak economy, which is heavily dependent on a small number of sectors, as well as to the concentration of bank's claims on and/or sources of funding from certain customers or groups of customers. Another significant feature of the Slovak banking sector is the high share of domestic government bonds in banks' balance sheets.

The **fourth intermediate objective** aims to limit the systemic risk arising from misaligned incentives of financial institutions and their customers. The primary aim here is to reduce the risk of moral hazard related to the presence of systemically important financial institutions. Whereas, in respect of the third intermediate objective, concentration risk is monitored for its potential impact on individual banks or the banking sector, in the case of systemically important institutions concentration is monitored owing to the large impact that potential default of such an institution would have on the financial sector and real economy. Moral hazard may also arise in relation to management remuneration at financial institutions or in the terms of cooperation with financial intermediaries.

The **fifth intermediate objective** is to strengthen the resilience of financial infrastructures. The most important elements of the financial infrastructure in Slovakia are the payment systems (TARGET2, SIPS), the Deposit Protection Fund, and securities settlement systems. Their reliable operation is crucial for the country's financial stability.

The Quarterly Commentary on Macroprudential Policy (QCMP) is structured according to these objectives, pursuant to Recommendation ESRB/2013/1. Its main part is a situation analysis (based on the indicators in the annex), which is a basis for NBS decision-making. This edition of the QCMP is based mostly on data as at 31 March 2017, although the qualitative assessment also takes account of information available until the submission date of the QCMP.

The document is divided into three parts. The first part contains a brief analysis of the most significant developments related to systemic risk which occurred during the quarter under review, broken down into sub-headings that correspond to the above-mentioned intermediate objectives. The second part, focusing on decisions taken in the area of macroprudential policy, includes not only decisions of NBS, but also decisions of the ECB. The third part comprises annexes that include: tables showing indicators used to monitor the intermediate objectives, and reference information for decisions on the countercyclical capital buffer rate.

1 Situation analysis by Národná banka Slovenska

1.1 Excessive credit growth and leverage

The credit market trends observed throughout 2016 became more pronounced in the first quarter of 2017. The developments characteristic of a financial cycle upswing accelerated further at the start of 2017, with the stock of loans increasing in the first quarter by 11.4% year on year (compared with 10.3% in the previous quarter). This was the strongest growth rate for eight years, and the only similar growth, in absolute terms, occurred during the 2006-2009 credit boom, when private sector indebtedness was still relatively low. Factors on both the supply and demand sides have contributed to the upward pressure on lending. Demand for credit is being stoked by the favourable macroeconomic situation and its positive impact on both the labour market and the income of non-financial corporations (NFCs), as well as by improving sentiment and the stable economic outlook. On the supply side, credit growth is being supported by protracted low interest rates and interest margins, strong competition, and banks' efforts to offset their low margins by providing an increasing amount of higher-risk loans. Accelerating growth is therefore being seen in both lending to households and lending to NFCs. The stock of household loans increased in the first quarter by 13.9% year on year, which was up from 13.4% in the fourth quarter of 2016 and was the highest rate since 2009. Household credit growth in Slovakia has been the highest in the European Union for the past one-and-a-half years. This growth has been reflected in the real estate market, with housing loans making up fully three-quarters of all loans to households. Year-on-year property price growth has been in double digits since the beginning of the year. Property prices are also being pushed up by weaker supply in the real estate market. The number of flats advertised for sale in the first quarter was around one-third lower compared with the same period last year and around one-half lower compared with the same period two years earlier. The trend of rising prices and falling supply of flats is broad-based across all Slovak regions. It is also affecting developments in the new-build market, with new flats now making up more than half of all flats sold in the Slovak capital Bratislava. Another consequence of strong credit growth is the rising indebtedness of Slovak households. The household debt-to-GDP ratio increased to 39.1% in the first quarter of 2017 (up from 38.3% in the last quarter of 2016).

NFC loan growth accelerated further, year on year, to 7.4% in the first quarter of 2017 (from 5.3% in the last quarter of 2016). NFC loan growth over the past three years has been driven by investment loans, given firms' favourable outlook for their future economic situation. The first quarter of 2017 also saw the stock of operating loans increase for the first time in three years, perhaps indicating that firms' are now reaching the limit of their capacity to self-finance production activities. The main sectors of growth in NFC loans were commercial real estate and industry, where growth rates were approaching 15%. This trend is increasing the banking sector's sensitivity to economic developments. Lending growth has also resulted in rising indebtedness in the NFC sector. The NFC debt-to-GDP ratio increased to 53.3% in the first quarter of 2017 (up from 52.4% in the fourth quarter of 2016).

The financial cycle's acceleration is also affecting the reviewed indicators, most of which increased significantly in the first quarter of 2017. At the same time, the buffer guides are for the first time all indicating the need for a non-zero countercyclical capital buffer (CCyB) rate (Table 3). The

domestic credit-to-GDP_{trend} gap³ increased in the first quarter of 2017, to 4.96% (from 4.48% in the previous quarter). Such a level has not been recorded since 2007-2008 when the cycle's previous expansion was reaching its peak. A CCyB rate consistent with the current level of this buffer guide would be 1.5%. The standardised credit-to-GDP_{trend} gap⁴ is also pointing to upward pressures in the credit market, and its level in the first quarter of 2017 would correspond to a 2% CCyB rate. As for the standardised credit-to-GDP gap⁵, which captures overall private sector debt, it was positive for a second successive quarter (rising from 1.34% at the end of 2016 to 2.09% in the first quarter). Its positive values, the first in seven years, would also be consistent with a non-zero CCyB rate. Another financial cycle indicator, the Cyclogram, increased in the first quarter of 2017 to levels last observed just before the outbreak of the financial crisis in 2008. This indicator had already been approaching its all-time high recorded in summer 2008. The Cyclogram's increase in early 2017 was supported by all of its components, including macroeconomic developments, sentiment levels, private sector debt growth, property prices and credit risk developments.

Financial market pressures gained further momentum in the first quarter of 2017, as was apparent from the acceleration in most of the reviewed indicators. Furthermore, certain provisions of a new NBS Decree in the area of housing loans entered into force in March 2017⁶, but they have not as yet dampened credit growth significantly. At the same time, there are several structural changes taking place in the financial sphere, with macro stress test results also showing the domestic banking sector to be increasingly sensitive to adverse scenarios.⁷ The long period of historically low interest rates means banks have no leeway to cut rates, but it may be assumed that the current trend will change and that interest rates will have rising tendency going forward. The banking sector is becoming increasingly sensitive to the business cycle owing to all-time low interest rate levels, elevated private sector indebtedness, the rising trend in average loan terms, and increasing exposure to economically sensitive sectors. Hence the financial cycle's current expansionary phase is an opportune time to strengthen the banking sector's resilience to those risks that typically build-up in 'good times' and materialise during stressed periods.

1.2 Excessive maturity mismatch and market illiquidity

Liquidity risk in the banking sector increased moderately in the first quarter of 2017, thus maintaining its long, slow upward trend. As in previous quarters, the increase in liquidity risk stemmed mainly from a decline in the share of government bonds in banks' assets and an increase in long-term illiquid loans (mostly housing loans). The maturity mismatch between assets and liabilities has been widened, inter alia, by growth in short-term retail deposits, which are nevertheless sufficiently stable. Owing to strong credit growth, the loan-to-deposit ratio has increased almost to the level of the euro area median.

³ The indicator is based on the amount of loans provided by domestic banks to NFCs and households.

⁴ The indicator is compiled from data on the total debt of the NFC sector by estimating the missing data on total private sector debt up to 1993 and incorporating a less volatile indicator in the denominator: GDP_{trend}.

⁵ Calculated in accordance with the requirements laid down in Recommendation ESRB 2014/1.

⁶ Decree No 10/2016 of Národná banka Slovenska of 13 December 2016 laying down detailed provisions on the assessment of borrowers' ability to repay housing loans.

⁷ Analysis of the Slovak Financial Sector – 2016:

http://www.nbs.sk/_img/Documents/_Dohlad/ORM/Analzy/ASFS_2016.pdf

1.3 Concentration

The first quarter of 2017 saw no significant change in the Slovak banking sector's exposure to concentration risk, which remains a significant structural risk to the sector. Certain trends continue to mitigate this risk, including downward trends in the share of Slovak government bonds in banks' assets, in banks' exposure to Cypriot counterparties, and in credit risk of NFC loans in most business sectors.

1.4 Moral hazard

Almost all the moral hazard indicators increased slightly during the first quarter of 2017. The concentration of both total net assets (which is at historically high levels) and eligible deposits increased. While the share of investment in domestic government bonds is falling slightly, its concentration within the banking sector is rising. The concentration of assets in the financial system is also fluctuating close to its highest ever levels. It therefore remains important to increase the resilience of the most significant banks.

1.5 Financial infrastructures and other risks

The annual contribution to the Deposit Protection Fund (DPF) for 2017 has been set at €3 million. This is lower than the previous year's contribution, since the contribution rate for 2017 was reduced to 0.01% of covered deposits, down from 0.03% in 2016. Therefore the extent of the DPF's deposit protection will remain largely unchanged in 2017, with its funds equivalent to around 0.6% of total covered deposits. Given, however, that the target level for its coverage is set at 0.8% of covered deposits by 2024, the contribution rates are expected to increase in the years ahead.

Slovakia's Resolution Council has since 2016 been setting domestic banks' contributions to the Single Resolution Fund. The banking sector's aggregate contribution for 2017 amounted to €17.5 million.

The cumulative proceeds of the special levy on selected financial institutions in Slovakia had increased to almost €750 million by the end of the first quarter of 2017. The rate of the special levy remains set at 0.2% per year until 2020.⁸

⁸ Under an amendment to Act No 384/2011 Coll. on a special levy on selected financial institutions.

2 Decisions in the area of macroprudential policy

2.1 Decision taken by NBS with respect to the quarter under review

Developments in the domestic credit-to-GDP_{trend} gap (Chart 4) and the Cyclogram (Chart 5), as well as developments in the indicators of excessive credit growth and leverage (table in Annex A), further supported the reasons behind NBS's existing decision to apply a non-zero CCyB rate. With the respective trends continuing to intensify, as described in section 1.1, the NBS Bank Board has decided to increase the CCyB rate to 1.25% with effect from 1 August 2018.⁹ A non-zero CCyB rate of 0.50% was already due to be introduced on 1 August 2017 and will now remain at that level until 31 July 2018.

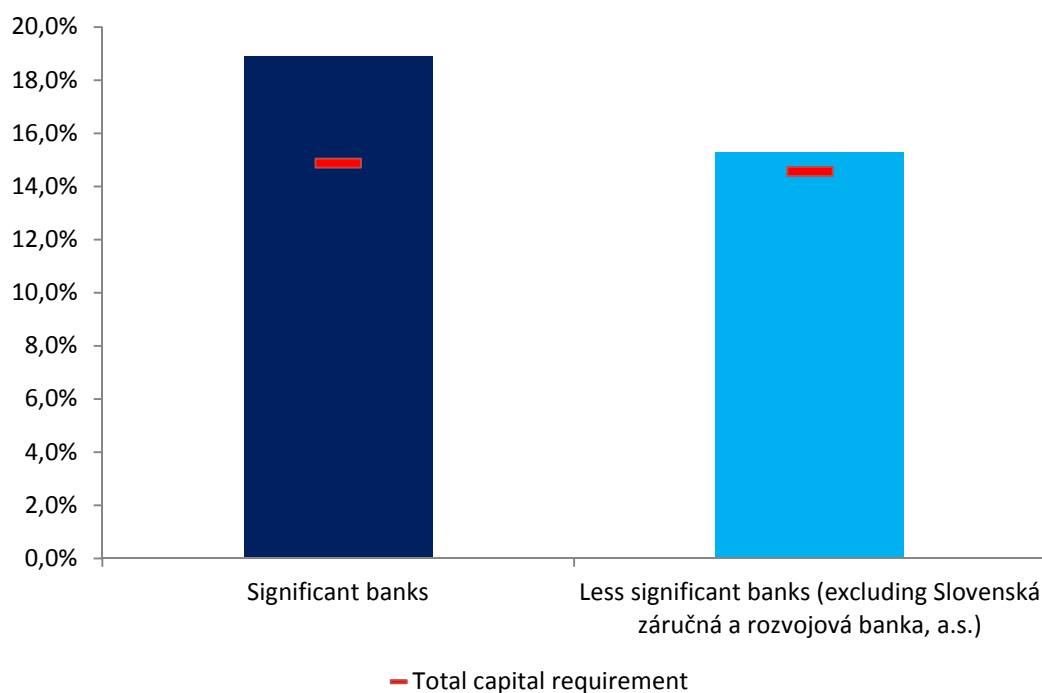
In deciding to increase the CCyB rate, the NBS Bank Board gave due consideration to the views of the European Central Bank (ECB) in accordance with Article 5 of the SSM Regulation.¹⁰ The CCyB rate increase is in line with the expectations of the European Systemic Risk Board (ESRB) and with the recommendations of the International Monetary Fund (IMF).

The purpose of increasing the CCyB rate is to strengthen the Slovak banking sector's resilience to mounting risks arising from the credit market. The move is not expected to have a significant impact on the domestic banking sector, given the current sufficiency of banks' capital ratios. Most of the banking sector, including banks subject to ECB supervision (accounting for almost 80% of the credit market), are expected to continue meeting their capital requirements even after the CCyB rate increase (Chart 1), and therefore the increase is not expected to impinge significantly on the banking sector's lending activity. While the increase is intended to bolster the banking sector's resilience going forward, some banks will not be able to meet future capital requirements without adjusting their dividend policy or adopting additional measures. Since the increase will not enter into force until 1 August 2018, the banking sector has sufficient time to prepare for the new requirements and to adopt any measures necessary.

⁹ <http://www.nbs.sk/en/financial-market-supervision1/macroprudential-policy/macroprudential-policy-decisions>

¹⁰ Council Regulation (EU) No 1024/2013 of 15 October 2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions ("the SSM Regulation").

Chart 1 Simulated impact of the CCyB rate increase on the Slovak banking sector in 2018, under a scenario that assumes banks retain their earnings (percentages of risk-weighted assets)



Source: NBS.

Notes: The chart shows the minimum regulatory total capital requirement, including pillar 1 and pillar 2 requirements and capital buffer requirements. The assumption of credit portfolio growth is in line with the baseline scenario used in macro stress testing. In the simulated scenario, three banks are assumed to report zero credit growth on the basis of the previous year's results. Profits for 2018 were not included in the simulation, while losses were taken into account.

2.2 Current instrument settings

Under NBS Decision No 20/2016 of 26 July 2016, the CCyB will be set at a non-zero rate of 0.50% from 1 August 2017.

On 13 December 2016 the NBS Bank Board approved a Decree laying down detailed provisions on the assessment of borrowers' ability to repay housing loans (NBS Decree No 10/2016). This Decree largely enacts housing loan-related recommendations set out in Macroprudential Policy Recommendation No 1/2014 of Národná banka Slovenska on risks related to market developments in retail lending ("the Recommendation"). There are certain changes from the Recommendation in regard to minimum financial resources requirements for borrowers and additional loan-to-value ratio limits.¹¹

On 31 January 2017 the NBS Bank Board approved an amendment to the Recommendation which revokes those parts of the Recommendation that have been adopted into law by NBS Decree No 10/2016 and certain statutes.¹²

¹¹ http://www.nbs.sk/img/Documents/Legislativa/FullWordingsOther/EN_O_10_2016.pdf

¹² <http://www.nbs.sk/img/Documents/Legislativa/BasicActs/A90-2016.pdf>
<http://www.nbs.sk/img/Documents/Legislativa/BasicActs/A129-2010.pdf>

Under Decision No 18/2016 and 19/2016 of Národná banka Slovenska of 24 May 2016, banks in Slovakia identified as 'other significantly important institutions' (O-SIIs) are required from 1 January 2017 to maintain a total additional capital buffer requirement (comprising an O-SII buffer and in some cases also a systemic risk buffer) of between 1% and 2% of risk-weighted assets. From 1 January 2018, under NBS Decision Nos 5/2017 and 6/2017 of 30 May 2017, the total additional capital buffer requirement will be maintained at 2% for the two largest banks and be reduced to either 1% or 1.5% for the other O-SIIs. Other currently applicable macroprudential policy instruments, covering mainly the area of capital requirements, are listed Table 1.

2.3 Potential application of macroprudential policy instruments over the medium-term horizon

Planned legislative amendments in the area of consumer loans

Preparations are now being made to enact in secondary legislation the recommendations set out in Macroprudential Policy Recommendation No 1/2014, as amended, and at the same time to recalibrate some of these recommendations. A key benefit of this enactment will be to extend the regulatory framework to cover non-bank entities. The new legislation will bring greater certainty to all banks and non-bank entities regarding the equality of business conditions in the retail lending market.

Expected developments in the countercyclical capital buffer rate in the next quarter

Current indicator trends do not imply any need to increase the countercyclical capital buffer rate in the next quarter.

2.4 ECB decisions concerning the Slovak banking sector taken in the quarter under review

As at 10 July 2017 the European Central Bank had not issued any macroprudential policy decision concerning the Slovak banking sector.

Table 1 Current setting of instruments applicable in Slovakia

Macroprudential instruments	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Note
Macroprudential instruments applicable in Slovakia						
Capital conservation buffer (Article 33b of the Banking Act)	2.5%	2.5%	2.5%	2.5%	2.5%	
Countercyclical capital buffer rate (Article 33g of the Banking Act)	0%	0%	0%	0%	0.5%	To be increased to 0.5% since 1 August 2017 and to 1.25% since 1 August 2018.
O-SII buffer (Article 33d of the Banking Act) ¹³	1%	1%	1% - 2%	1% - 2%	1% - 2%	To be decreased to 0.5% and 1% since 1 January 2018.
Systemic risk buffer (Article 33e of the Banking Act) ¹⁴			1%	1%	1%	
Risk-weight for exposures fully secured by mortgages for residential property (Article 124 of the EU's Regulation on prudential requirements for credit institutions and investment firms –hereinafter "the CRR")	35%	35%	35%	35%	35%	
Risk-weight for exposures fully secured by mortgages on commercial immovable property (Article 124 of the CRR)	50%	50%	50%	50%	50%	Scheduled increase.
Minimum exposure-weighted average LGD for all retail exposures secured by residential property and not benefiting from guarantees from central governments (Article 164 of the CRR)	10%	10%	10%	10%	10%	
Minimum exposure-weighted average LGD for all retail exposures secured by commercial immovable property and not benefiting from guarantees from central governments (Article 164 of the CRR)	15%	15%	15%	15%	15%	
Risk-weight for exposures fully secured by mortgages on commercial immovable property - other EU Member States (Article 124 of the CRR)	50%	50%	50%	50%	50%	
Minimum exposure-weighted average LGD for all retail exposures secured by residential property and not benefiting from guarantees from central governments - other EU Member States (Article 164 of the CRR)	10%	10%	10%	10%	10%	
Minimum exposure-weighted average LGD for all retail exposures secured by commercial immovable property and not benefiting from guarantees from central governments - other EU Member States (Article 164 of the CRR)	15%	15%	15%	15%	15%	

Source: NBS.

¹³ O-SII buffer is set for Československá obchodná banka, a.s., Poštová banka, a.s., Slovenská sporiteľňa, a.s., Tatra banka, a.s. and Všeobecná úverová banka, a.s.

¹⁴ Systemic risk buffer is set for Československá obchodná banka, a.s., Slovenská sporiteľňa, a.s., Tatra banka, a.s. and Všeobecná úverová banka, a.s.

Table 2 Current setting of instruments applicable to foreign exposures

Macroprudential instrument	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Note
Macroprudential instruments applicable abroad						
Countercyclical capital buffer rate for Czech Republic (Article 33j of the Banking Act)	0%	0%	0.5%	0.5%	0.5%	To be increased to 1.0% since 1 July 2018.
Countercyclical capital buffer rate for Sweden (Article 33j of the Banking Act)	1.5%	1.5%	1.5%	2%	2%	Buffer rate will be increased to 2.0% from 19 March 2017.
Countercyclical capital buffer rate for other EU Member States (Article 33j of the Banking Act)	0%	0%	0%	0%	0%	
Countercyclical capital buffer rate for Norway (Article 33j of the Banking Act)	1.5%	1.5%	1.5%	1.5%	1.5%	To be increased to 2% from 31 December 2017.
Countercyclical capital buffer rate for Iceland (Article 33j of the Banking Act)	0%	0%	0%	1%	1%	To be increased to 1.25% from 1 November 2017.
Countercyclical capital buffer rate for Hong Kong (Article 33i and Article 33j of the Banking Act)	0.625%	0.625%	1.25%	1.25%	1.25%	To be increased to 1.875% since 1 January 2018 and to 2.5% since 1 January 2019.
Countercyclical capital buffer rate for countries other than EU Member States (Article 33i and Article 33j of the Banking Act)	0%	0%	0%	0%	0%	
Systemic risk buffer for Estonia (Article 33f of the Banking Act)	0%	1%	1%	1%	1%	
Systemic risk buffer for other EU Member States (Article 33f of the Banking Act)	0%	0%	0%	0%	0%	
Risk-weight for exposures fully secured by mortgages on residential property - other EU Member States (Article 124 of the CRR)	35%	35%	35%	35%	35%	Ireland, Croatia, Malta, Slovenia: conditions to be tightened for application of the 35% risk weight Romania: conditions to be tightened for application of the 50% risk weight United Kingdom: conditions to be tightened for application of the 50% risk weight
Risk-weight for exposures fully secured by mortgages on commercial immovable property – Sweden and Romania (Article 124 of the CRR)	100%	100%	100%	100%	100%	
Risk-weight for exposures fully secured by mortgages on commercial immovable property - other EU Member States (Article 124 of the CRR)	50%	50%	50%	50%	50%	
Minimum exposure-weighted average LGD for all retail exposures secured by residential property and not benefiting from guarantees from central governments - other EU Member States (Article 164 of the CRR)	10%	10%	10%	10%	10%	
Minimum exposure-weighted average LGD for all retail exposures secured by residential property and not benefiting from guarantees from central governments – Norway (Article 164 of the CRR)	20%	20%	20%	20%	20%	
Minimum exposure-weighted average LGD for all retail exposures secured by commercial immovable property and not benefiting from guarantees from central governments - other EU Member States (Article 164 of the CRR)	15%	15%	15%	15%	15%	

Source: ESRB.

Annexes

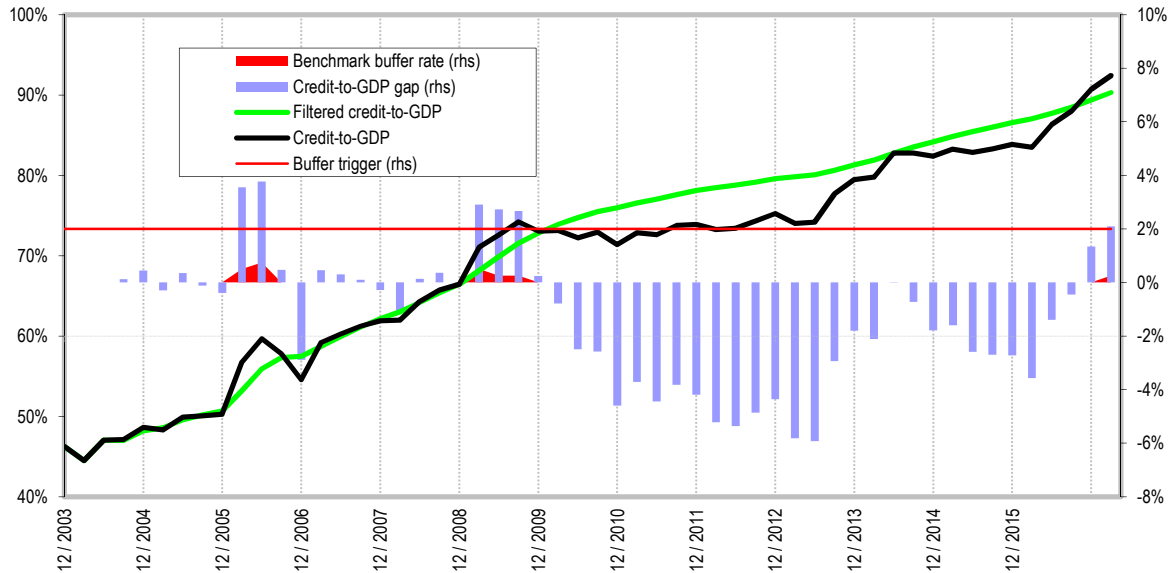
A) Selected indicators broken down by main risk categories

Date	Excessive credit growth and leverage														Excessive maturity mismatch and market liquidity						Concentration						Moral hazard						Financial infrastructure		Resilience of financial system												
	Share of credit to GDP	Total credit to private sector	Total credit to public sector	Total credit to government	Total credit to non-financial	Total credit to financial	Total credit to households	Total credit to companies	Total credit to banks	Total credit to non-banks	Total credit to corporates	Total credit to households	Total credit to companies	Total credit to banks	Total credit to non-banks	Total credit to corporates	Total credit to households	Total credit to companies	Total credit to banks	Total credit to non-banks	Total credit to corporates	Total credit to households	Total credit to companies	Total credit to banks	Total credit to non-banks	Total credit to corporates	Total credit to households	Total credit to companies	Total credit to banks	Total credit to non-banks	Total credit to corporates	Change of covered assets	Weighted average of covered assets														
3.17	2.09%	14%	10%	92%	39%	33%	4.48%	11%	14%	7%	28%	37%	21%	2%	63%	72%	56	100%	0.4%	7.7	40%	12%	27%	4%	3%	0%	4%	7%	75%	148	76%	1 451	20%	2 101	30%	1 623	69%	1 388	85%	1 610	0.6%	1.0%	52 638	32%	18%	17%	1 130 998
12.16	1.34%	11%	12%	10%	81%	38%	52%	10%	13%	5%	27%	36%	20%	2%	62%	72%	58	100%	0.4%	7.2	41%	13%	26%	4%	3%	0%	4%	7%	73%	1 270	72%	1 453	21%	1 852	30%	1 659	61%	1 375	84%	1 641	0.6%	0.9%	-2 554	-22%	18%	16%	1 449 908
9.16	-0.45%	9%	12%	7%	88%	37%	51%	3.97%	10%	13%	5%	56%	35%	20%	2%	60%	74%	101	0.1%	0.1%	6.1	42%	14%	27%	4%	3%	0%	4%	73%	1 269	75%	1 427	22%	1 867	30%	1 590	58%	1 494	85%	1 601	0.6%	1.0%	-1 918	21%	18%	17%	1 447 938
6.16	-1.39%	8%	12%	5%	88%	37%	50%	3.17%	9%	13%	4%	54%	34%	20%	1%	58%	73%	102	0.2%	-0.1%	6.1	41%	14%	26%	4%	3%	0%	4%	73%	1 263	75%	1 412	22%	1 843	30%	1 591	62%	1 363	86%	1 581	0.6%	0.9%	-2 029	-13%	17%	16%	1 601 908
3.16	-3.57%	4%	11%	1%	83%	36%	48%	2.95%	10%	12%	8%	53%	33%	20%	1%	57%	73%	104	0.9%	0.0%	5.6	39%	14%	26%	4%	3%	0%	4%	73%	1 248	75%	1 410	22%	1 857	30%	1 587	61%	1 368	86%	1 563	0.6%	0.9%	-1 079	-3%	17%	16%	1 601 908
12.16	-2.22%	8%	11%	2%	84%	35%	49%	2.91%	11%	12%	9%	53%	32%	20%	1%	56%	71%	105	0.6%	0.0%	6.4	40%	15%	26%	4%	3%	0%	4%	72%	1 255	75%	1 416	24%	1 739	30%	1 583	61%	1 308	87%	1 533	0.7%	0.9%	988	3%	18%	17%	1 616 908
9.15	-2.70%	4%	12%	1%	83%	34%	49%	2.41%	9%	13%	3%	52%	32%	20%	1%	55%	70%	106	0.6%	-0.2%	5.6	39%	14%	26%	4%	3%	0%	4%	72%	1 237	69%	1 273	24%	1 772	30%	1 580	58%	1 345	89%	1 543	0.6%	0.9%	-1 602	-3%	17%	16%	1 553 918
3.15	-2.95%	3%	12%	2%	83%	34%	49%	1.94%	9%	13%	3%	51%	32%	20%	1%	54%	69%	107	0.5%	-0.2%	5.4	39%	14%	26%	4%	3%	0%	4%	71%	1 231	70%	1 283	24%	1 757	30%	1 580	53%	1 291	87%	1 615	0.6%	0.9%	807	7%	18%	16%	1 481 918
12.14	-1.79%	6%	12%	3%	82%	33%	50%	0.62%	6%	12%	2%	49%	30%	19%	0%	52%	70%	108	0.2%	-0.8%	4.4	37%	17%	26%	4%	3%	0%	4%	71%	1 221	70%	1 219	26%	1 772	30%	1 564	53%	818	85%	1 587	0.6%	0.9%	-2 149	13%	17%	16%	1 616 908
9.14	-0.72%	9%	10%	8%	83%	32%	51%	0.94%	7%	11%	1%	49%	30%	20%	0%	50%	72%	108	0.6%	-0.6%	4.2	37%	18%	26%	4%	3%	0%	4%	71%	1 226	70%	1 276	26%	1 817	30%	1 571	50%	807	84%	1 538	0.6%	0.9%	1 602	22%	17%	16%	1 361 918
6.14	0.02%	14%	9%	17%	83%	31%	52%	0.50%	6%	11%	0%	48%	29%	20%	-1%	49%	72%	107	0.9%	-1.7%	3.9	38%	18%	26%	4%	3%	0%	4%	70%	1 218	70%	1 278	26%	1 832	30%	1 568	56%	961	83%	1 534	0.6%	0.8%	3 699	16%	17%	16%	1 361 918
3.14	-2.11%	10%	9%	10%	80%	30%	49%	0.39%	6%	10%	0%	48%	28%	20%	-1%	48%	70%	108	0.1%	-0.7%	3.5	36%	18%	26%	4%	3%	0%	4%	70%	1 205	70%	1 276	26%	1 754	30%	1 568	53%	1 038	82%	1 558	0.6%	0.7%	3 800	30%	17%	16%	1 418 908
12.13	-1.81%	8%	9%	7%	79%	30%	50%	0.18%	4%	9%	3%	47%	28%	20%	-1%	47%	71%	105	0.4%	-0.8%	3.4	36%	18%	26%	4%	3%	0%	4%	70%	1 214	70%	1 284	27%	1 788	30%	1 569	50%	987	84%	1 606	0.5%	0.6%	4 256	16%	17%	15%	1 422 898
9.13	-2.94%	7%	9%	5%	78%	29%	48%	0.32%	4%	9%	2%	47%	27%	20%	-1%	46%	71%	103	0.1%	-0.6%	3.4	36%	18%	26%	4%	3%	0%	4%	71%	1 223	73%	1 354	27%	1 771	31%	1 577	52%	988	84%	1 598	0.5%	0.5%	-395	32%	16%	15%	1 422 898
6.13	-5.92%	3%	9%	0%	74%	29%	45%	0.26%	4%	9%	3%	47%	27%	20%	-1%	45%	70%	103	1.1%	-0.8%	3.2	34%	19%	26%	4%	3%	0%	4%	71%	1 213	73%	1 360	27%	1 689	32%	1 610	49%	857	80%	1 627	0.5%	0.4%	2 527	33%	16%	15%	1 468 898
3.13	-5.82%	4%	9%	1%	74%	28%	46%	0.34%	3%	9%	4%	46%	26%	20%	-2%	44%	70%	102	0.1%	-0.8%	3.2	33%	19%	26%	4%	3%	0%	4%	71%	1 200	73%	1 361	26%	1 804	32%	1 604	48%	783	80%	1 694	0.5%	0.3%	1 573	23%	16%	15%	1 615 898
12.12	-4.86%	5%	9%	3%	75%	28%	47%	0.64%	3%	9%	3%	46%	26%	21%	-1%	44%	70%	102	0.8%	-0.7%	3.3	32%	19%	26%	4%	3%	0%	4%	71%	1 221	73%	1 371	30%	1 432	31%	1 644	49%	760	85%	1 661	0.6%	0.6%	3 800	16%	16%	13%	1 511 898
9.12	-4.87%	5%	8%	3%	74%	27%	47%	1.06%	2%	9%	5%	46%	25%	21%	-1%	43%	70%	100	0.5%	-0.6%	3.7	31%	19%	26%	4%	3%	0%	4%	72%	1 254	73%	1 386	32%	1 848	33%	1 643	50%	882	80%	1 648	0.5%	0.2%	3 718	8%	16%	13%	1 471 898
6.12	-5.36%	5%	8%	3%	73%	27%	46%	1.42%	3%	8%	2%	46%	25%	21%	-2%	42%	71%	100	0.7%	-0.6%	3.9	30%	19%	26%	4%	3%	0%	4%	72%	1 250	73%	1 383	31%	1 827	33%	1 659	56%	905	84%	1 644	0.5%	0.1%	2 779	-27%	15%	12%	1 471 898
3.12	-5.21%	5%	9%	3%	73%	27%	47%	1.91%	1%	9%	4%	46%	24%	22%	-2%	41%	72%	99	0.3%	-0.3%	4.3	29%	19%	26%	4%	3%	0%	4%	71%	1 222	73%	1 369	33%	1 734	34%	1 672	50%	863	82%	1 560	0.5%	0.0%	5 674	39%	13%	12%	1 511 898
12.11	-4.19%	6%	10%	7%	74%	27%	47%	2.53%	9%	10%	7%	46%	24%	22%	-1%	41%	70%	97	0.3%	-0.1%	4.5	33%	19%	26%	4%	3%	0%	4%	72%	1 254	73%	1 389	34%	1 777	34%	1 672	57%	914	81%	1 559	0.5%	0.0%	26 801	43%	13%	12%	1 361 898
9.11	-3.82%	6%	11%	3%	74%	26%	47%	3.25%	9%	11%	8%	47%	24%	22%	-1%	41%	70%	98	0.3%	0.2%	5.1	32%	19%	26%	4%	3%	0%	4%	71%	1 221	73%	1 468	37%	1 766	34%	1 661	59%	882	83%	1 403	0.4%	0.0%	3 123	55%	13%	13%	1 361 898
6.11	-4.45%	6%	11%	3%	73%	26%	47%	3.21%	10%	12%	8%	46%	24%	23%	-1%	40%	69%	94	0.6%	0.1%	4.7	33%	18%	26%	4%	3%	0%	4%	71%	1 221	75%	1 454	36%	1 746	34%	1 659	57%	905	78%	1 356	0.4%	0.0%	3 260	72%	13%	13%	1 361 898
3.11	-3.71%	5%	12%	2%	73%	26%	47%	2.47%	7%	12%	3%	45%	23%	22%	-1%	39%	68%	93	0.5%	-0.1%	4.7	34%	18%	26%	4%	3%	0%	4%	71%	1 220	75%	1 458	38%	1 789	34%	1 665	62%	1 027	78%	1 448	0.3%	0.0%	1 829	63%	13%	12%	1 361 898
12.10	-4.40%	3%	11%	1%	71%	25%	46%	2.30%	6%	12%	0%	45%	23%	22%	-1%	38%	66%	95	-1.1%	-0.3%	4.5	30%	19%	26%	4%	3%	0%	4%	72%	1 237	75%	1 478	40%	1 839	34%	1 682	62%	1 077	74%	1 375	0.3%	0.0%	1 140	67%	13%	12%	1 371 898
9.10	-2.98%	1%	10%	3%	72%	25%	46%	2.65%	4%	11%	-1%	45%	23%	22%	-1%	37%	66%	93	0.9%	-0.2%	3.8	30%	19%	26%	4%	3%	0%	4%	72%	1 252	75%	1 508	45%	1 844	35%	1 694	59%	942	74%	1 373	0.2%	0.0%	987	74%	13%	12%	1 361 898
6.10	-2.46%	1%	9%	6%	72%	25%	46%	2.43%	3%	10%	3%	45%	22%	22%	-1%	36%	67%	92	-1.1%	-0.4%	3.3	30%	19%	26%	4%	3%	0%	4%	73%	1 276	76%	1 513	47%	1 808	35%	1 698	60%	1 034	75%	1 248	0.2%	0.0%	-572	71%	12%	12%	1 361 898
3.10	-0.78%	1%	10%	6%	73%	24%	49%	2.65%	2%	10%	4%	45%	22%	23%	-1%	36%	67%	91	-1.0%	-0.4%	3.1	30%	19%	26%	4%	3%	0%	4%	72%	1 255	76%	1 517	47%	1 805	36%	1 698	63%	1 168	77%	1 311	0.1%	0.0%	54	73%	12%	11%	1 361 898
12.09	0.24%	3%	9%	0%	73%	24%	4																																								

B) Countercyclical capital buffer

Deviation of the credit-to-GDP ratio from its long-term trend¹⁵

Chart 2 Credit-to-GDP gap

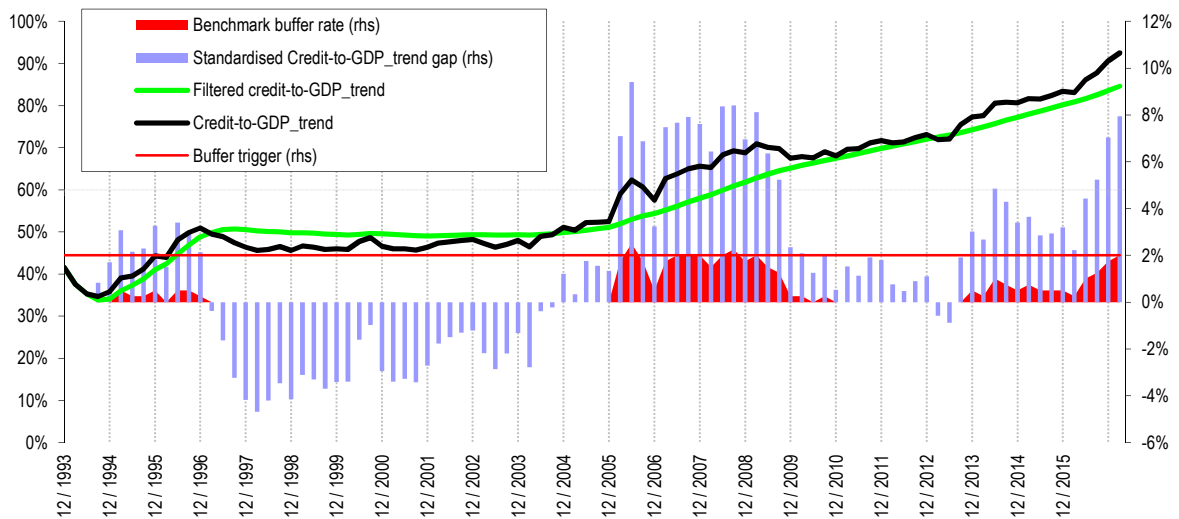


Source: NBS, SO SR.

Credit-to-GDP gap is estimated on outstanding amount of debt of NFCs and households.

Countercyclical capital buffer trigger values and gap values are shown on the right-hand scale.

Chart 3 Credit-to-GDP_{trend} gap



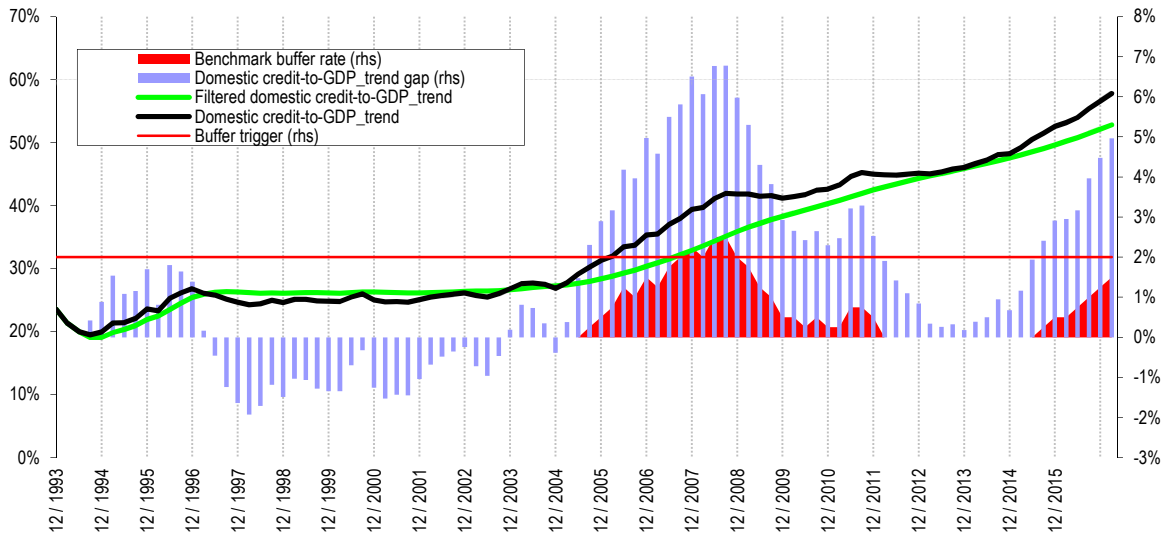
Source: NBS, SO SR.

Credit-to-GDP_{trend} gap is estimated on outstanding amount of debt of NFCs and households. Data within time frame 1993 – 2002 for foreign debt of NFCs are estimated according to development of domestic debt of NFCs.

Countercyclical capital buffer trigger values and gap values are shown on the right-hand scale.

¹⁵ Ratio pursuant to Article 33g(2)(a) of the Banking Act; calculation made in accordance with ESRB Recommendation No ESRB/2014/1 of 18 June 2014 on guidance for setting countercyclical buffer rates, part B2.

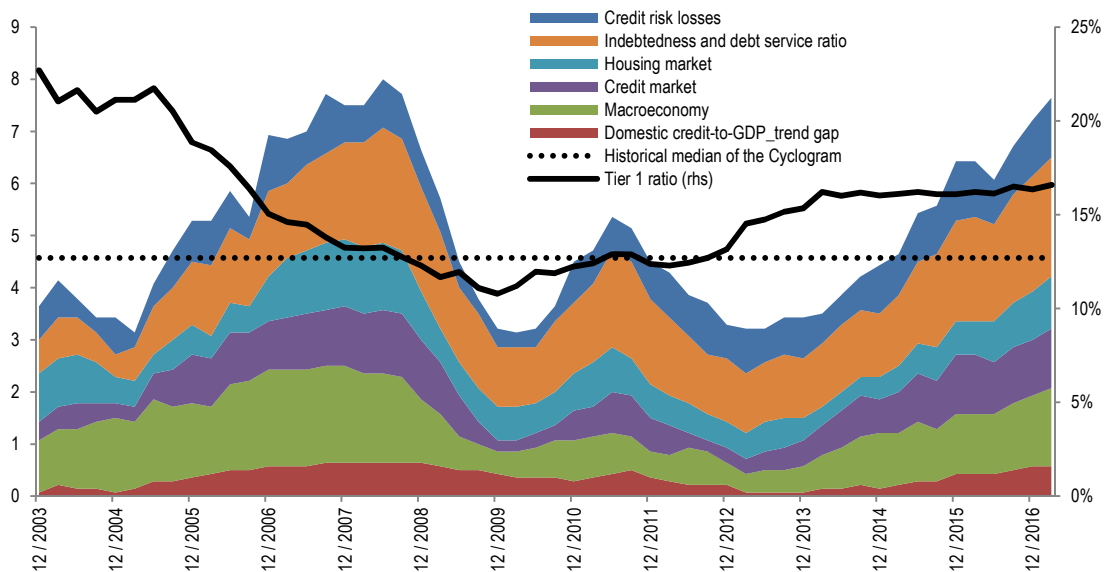
Chart 4 Domestic credit-to-GDP_{trend} gap



Source: NBS, SO SR.

Domestic credit-to-GDP gap is estimated on credit provided by domestic banking sector to NFCs and households. Countercyclical capital buffer trigger values and gap values are shown on the right-hand scale.

Chart 5 Cyclogram¹⁶



Source: NBS, SO SR and CMN.

¹⁶ Pursuant to Article 33g(1c) of the Banking Act; calculation made in accordance with ESRB Recommendation No ESRB/2014/1 of 18 June 2014 on guidance for setting countercyclical buffer rates, parts C and D.

Table 3 Buffer guide for the countercyclical capital buffer as at 31 March 2017

Indicator	Buffer guide	Debt/GDP ratio	Deviation of the credit-to-GDP ratio from its long-term trend
Credit-to-GDP gap (Chart 2)	0.25%	92.4%	2.09%
Credit-to-GDP _{trend} gap (Chart 3)	2.00%	92.4%	7.94%
Domestic credit-to-GDP _{trend} gap (Chart 4)	1.50%	57.7%	4.96%
Cyclogram (Chart 5)	2.25%		

Source: NBS.

Note: Due to the shortage of time series, the Credit-to-GDP gap indicator does not actually perform as a reliable buffer guide indicator.