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Latvijas Banka's approach to applying the countercyclical capital buffer

This document outlines Latvijas Banka's approach to applying the countercyclical capital buffer (hereinafter – CCyB) rate.

Basis for application of CCyB

According to Paragraph one of Section 35.5 of the Credit Institution Law, Latvijas Banka is the institution responsible for setting the CCyB rate[1]. Latvijas Banka evaluates the intensity of the cyclical systemic risk on a quarterly basis and, if necessary, sets or adjusts the CCyB rate applicable to exposures to the residents of the Republic of Latvia.

The CCyB rate is expressed as a percentage of the total value of exposures to Latvian residents (mostly consisting of loans to households and non-financial corporations) between 0% and 2.5% (in justified cases, a CCyB rate above 2.5% may be set). The CCyB requirement has to be met by Common Equity Tier 1 capital.

When the CCyB rate is increased, credit institutions have 12 months following the publication of the respective notification of an increase to start maintaining the rate, yet a shorter application period is possible in special cases. A reduction of the CCyB rate enters into force once the respective decision is taken.

Credit institutions have to take account of the CCyB rates set in other countries when calculating their specific CCyB rate requirements if they have exposures to the residents of the respective countries[2]. The institution-specific CCyB rate is calculated as the weighted average rate taking into account the geographical breakdown of the respective exposures and the CCyB rate set in the respective countries. The resulting weighted average credit institution-specific CCyB rate is multiplied by the total value of exposures.

The CCyB was introduced in the aftermath of the global financial crisis when it became clear that additional capital requirements need to be maintained to reduce cyclical fluctuations and increase the shock resilience of banks in order to prevent financial crises. In 2010, the Basel Committee on Banking Supervision issued new global capital adequacy standards for banks (Basel III) proposing the introduction of the CCyB, a

[1] Until the end of 2022, the Financial and Capital Market Commission was responsible for setting the CCyB rate in Latvia. It was integrated into Latvijas Banka as of 1 January 2023.

[2] Pursuant to the Financial and Capital Market Commission's Regulation No 137 "Regulations on calculating the institution specific countercyclical capital buffer rate" of 25 August 2020, when calculating the institution specific CCyB rate, a credit institution applies the CCyB rate set by Latvijas Banka to the credit exposures listed in points (g) to (q) of Article 112 of Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012, and the geographical location of the respective credit exposure is identified based on the provisions of Commission Delegated Regulation (EU) No 1152/2014 of 4 June 2014 supplementing Directive 2013/36/EU of the European Parliament and of the Council with regard to regulatory technical standards on the identification of the geographical location of the relevant credit exposures for calculating institution specific countercyclical capital buffer rates.

macroprudential tool aimed at increasing the resilience reserves of credit institutions during a financial cycle stage when cyclical risk is growing and partially or fully releasing the reserves during a financial crisis. This would enable credit institutions to continue providing financing through the crisis which, in turn, would ease the shock effect on the economy and reduce the duration of the crisis.

In 2013, this proposal was implemented in the financial sector supervision of the European Union by introducing the CCyB tool in the Capital Requirements Directive[3] along with other innovations. The Directive was transposed in Latvia in the Credit Institution Law on 28 May 2014. In addition to that, the European Systemic Risk Board (hereinafter – the ESRB) issued a Recommendation on guidance for setting countercyclical buffer rates[4] on 18 June 2014.

International context of the CCyB application experience

Following the introduction of the CCyB, global institutions, including the European and national supervisory authorities, have accumulated experience in applying the CCyB. Moreover, certain conclusions as to this experience were drawn following the Covid-19 pandemic when unexpected shocks led to a full or partial release of the CCyB rate.

In October 2022, the Basel Committee on Banking Supervision published a report on buffer usability and cyclicality in the Basel framework[5], as well as newsletter on positive cycle-neutral CCyB[6]. It suggests that while the Basel standard prescribes various aspects of the CCyB, a number of application elements remain under the discretion of designated authorities and an increasing number of jurisdictions have chosen to implement a positive neutral CCyB approach, whereby a positive (above zero) CCyB rate is maintained when risks are neither elevated nor subdued. The Basel Committee on Banking Supervision has voiced its support to the ability of designated authorities to set a positive neutral CCyB rate on a voluntary basis and considers that it ensures appropriate general flexibility within the overall Basel III framework.

In the context of the review of the European macroprudential framework, the European Central Bank (hereinafter – the ECB) has also expressed support to creating additional macroprudential policy space in the form of larger releasable capital buffers, which can be inter alia achieved by both pursuing a positive neutral CCyB approach and more active use of the CCyB[7], because building capital buffers in normal times at low costs works as an insurance against systemic risks that are difficult to capture and can be very costly when they materialise[8].

The ESRB also believes that the amount of releasable macroprudential capital buffers needs to be increased, and it can be achieved through earlier and more active use of the

[3] Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC (CRD).
[4] Recommendation of the European Systemic Risk Board of 18 June 2014 on guidance for setting countercyclical buffer rates (ESRB/2014/1)
[5] Buffer usability and cyclicality in the Basel framework (bis.org)
[6] Newsletter on positive cycle neutral countercyclical capital buffer rates
[7] ECB response to the European Commission's call for advice on the review of the EU macroprudential framework (europa.eu)
[8] A positive neutral rate for the countercyclical capital buffer state of play in the banking union (europa.eu)

CCyB as well as the ability of designated authorities to establish a positive neutral rate for the CCyB[9].

The lessons learned during the pandemic have made an increasingly larger number of countries to become more active in building up additional capital buffers that can be released during a financial crisis. The first one to implement a positive neutral CCyB policy was the United Kingdom, followed already by several other countries, for example, Lithuania, Estonia, Sweden, Czech Republic, the Netherlands, Ireland, Cyprus as well as Australia and Hong Kong.

Objective and application of the CCyB

Taking into account the international experience and acknowledging that a pre-emptive increase of the CCyB requirement earlier in the financial cycle improves the chances of a timely build-up of sufficient banking sector resilience buffers that can be released during crises, including unexpected systemic (pandemic, geopolitical, macrofinancial) shocks, **Latvijas Banka starts to implement a positive neutral CCyB approach.**

According to this approach, **the CCyB rate is maintained at a certain base level above zero already in a standard risk environment or at the neutral stage of the financial cycle** when the cyclical systemic risk is neither elevated nor significantly low. **Latvijas Banka has estimated 1% to be an appropriate base level of the CCyB rate.**

Latvijas Banka continues to assess the intensity of the cyclical systemic risk and the adequacy of the applicable CCyB rate on a quarterly basis. In the event of an increase in the cyclical systemic risk, the CCyB rate is raised proportionately to its intensity, starting from an already positive base rate, rather than from zero. The CCyB rate may be raised up to 2.5%. **Thereby the total CCyB requirement will comprise both the base rate and the cyclical rate components.** The CCyB rate may be partially or fully released in times of crisis as risks materialise and in the post-crisis recovery period.

Thus, **the objective of the CCyB as a cycle-varying additional capital buffer is to strengthen the capitalisation of credit institutions during the neutral and growth stages of the financial cycle, so that credit institutions would have sufficient loss-absorbing capacity in times of a crisis. Partial or full release of the CCyB rate when risks materialise enables credit institutions to continue financing the economy, thereby reducing the duration of crises and their impact on the economy.**

A positive neutral CCyB approach enables to start building up an additional capital buffer earlier in the financial cycle. This reduces the uncertainty associated with the difficulties of an accurate and timely identification of the severity degree of the cyclical systemic risk, as the characterising indicators are often insufficiently forward looking, may provide weak and, at times, contradictory signals of the future development.

Moreover, unexpected shocks may occur at any stage of the financial cycle. Under normal circumstances, there is a 12-month period before the CCyB rate takes effect, and in the event of a rapid accumulation of risks, this resilience buffer may be built up too late. If the financial ratios of banks are sufficiently strong to start strengthening capitalisation earlier in the financial cycle, it can be done more gradually and hence also with smaller potential negative side-effects.

An early application of the CCyB requirement creates a safety buffer and increases flexibility in macroprudential policy implementation throughout the financial cycle

[9] Review of the EU Macroprudential Framework for the Banking Sector - Response to the call for advice (europa.eu)

(including cases of unexpected crises), as the CCyB is the macroprudential capital tool that can be most easily released in the event of a financial crisis.

In addition to that, unlike in the case of other macroprudential capital tools, reciprocity of the CCyB rates between EU Member States is automatic up to 2.5%. According to the Capital Requirements Directive, credit institutions of other Member States apply Latvia's rate automatically when calculating the institution-specific CCyB rates with regard to their respective exposures to Latvia's residents.

CCyB base rate

The CCyB rate of 1% was recognised an appropriate base level based on quantitative estimates, expert judgement as well as a study of international experience.

Maintenance of a 1% CCyB rate already at the neutral stage of the financial cycle increases the chances of a timely build-up of a sufficiently large resilience buffer and improves the ability to face unexpected shocks.

This is a level from which the CCyB rate can be both released or raised if necessary. In the event of a substantial increase in risks, the CCyB rate can be raised more gradually than if it had to be increased from zero[10]. In the event of an unexpected shock, a capital buffer at least in the amount of the 1% CCyB rate would already be available to support credit institutions through a period of financial distress.

The base rate was calibrated taking into account results of the stress tests[11] conducted by Latvijas Banka concerning the credit institution sector's average total capital reduction in case of a shock, which is not covered by the existing capital requirements and the voluntary capital buffers in the credit institution sector. The results of the stress tests conducted in 2023[12] suggest that, given the existing own funds requirements and voluntary capital buffers, uncovered losses would amount close to 1% of total risk exposure amount. Hence, an additional capital buffer would prevent a potential capital deficit in the financial system in case of a financial distress.

The effect of the applicable CCyB rate in the context of the total capital requirements to the credit institution sector was also evaluated as well as whether this requirement could induce any negative side-effects.

The experience of other countries in selecting the base level of the CCyB rate under a positive neutral CCyB approach was also considered. As at the end of 2023, the CCyB base rate in Latvia's neighbouring countries Lithuania and Estonia as well as in Cyprus, Australia and Hong Kong stood at 1%, it was 1.5% in Ireland and 2% in Sweden, the Netherlands, Czech Republic and the United Kingdom. The base rate may be reviewed if necessary.

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[10] An assessment of the CCyB rate that would have been historically required in the time period from 2003 to 2006 led to a conclusion that, should the CCyB tool been available at that time, the CCyB rate would have had to be raised by an annual average of 1% in order to have a resilience buffer in place in advance of the financial crisis that would have been adequate given the substantial increase in cyclical risk.

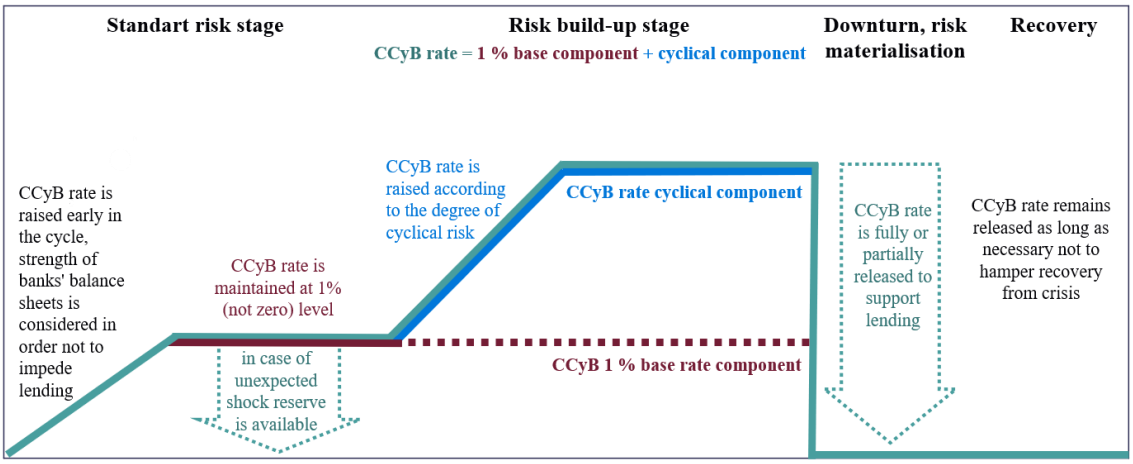
[11] Stress tests are a tool for evaluating the resistance of credit institutions to unexpected shocks, i.e. evaluating whether the built-up capital buffers and provisions are sufficient to absorb potential future losses. Therefore, judging by their purpose and nature, stress tests are an appropriate tool for calibrating the CCyB base rate. The stress test results are affected by model assumptions and selected scenarios that are published annually in the Financial Stability Report. Severity of the scenario depends on the stage of the financial cycle the economy is undergoing, including the risk environment.

[12] Latvijas Banka conducts stress tests of credit institutions twice a year. The results of the stress tests conducted in June 2023 have been published in the Financial Stability Report.

Application of the CCyB rate during different stages of the financial cycle

To describe Latvijas Banka's new approach to setting the CCyB rate at various stages of the financial cycle, four stages of the financial cycle have been used for a stylised representation (see Chart 1).

Chart 1. **Stylised representation of the positive neutral CCyB approach at various stages of the financial cycle**



At the same time, it has to be noted that the boundaries of the financial cycle stages are not always accurately definable and identifiable, it is hard to characterise the developments of the particular stages in a standardised manner and cyclical systemic risk indicators may not always uniformly characterise the same stage of the financial cycle. Moreover, an unexpected financial crisis can occur regardless of the degree of cyclical systemic risk.

Standard risk stage: a neutral stage of the financial cycle, when the cyclical risk is neither elevated nor significantly low. At this stage, the economy and asset prices are growing at moderately, there are no significant imbalances and the risk appetite is temperate, situation on the labour market is generally improving. Balance sheets of banks have improved since the crisis, and their condition is not an obstacle to increasing the supply of credit. No significant losses are expected for banks and they are overall profitable.

If a crisis has occurred before this stage of the cycle and the CCyB rate has been fully released or decreased below the base rate, Latvijas Banka would aim to increase the CCyB rate up to the 1% base rate during this stage.

Risk build-up stage: the cyclical systemic risk is increasing and imbalances are building up. Usually, acceleration of lending and asset (particularly, real estate) prices as well as growing private sector debt are an indication of that. Risk appetite increases, lending standards are being loosened and risks may not be properly estimated. Signs of overheating may be observed in the domestic economy and/or external macrofinancial environment.

At this stage, it is important to evaluate what the drivers of lending and asset prices are, in order to draw conclusions whether the growth of lending and asset prices really is excessive and adds to macrofinancial risks.

When an increase in cyclical systemic risk is identified, the CCyB rate is raised above the CCyB benchmark rate of 1% according to the intensity of this risk. The CCyB rate may be increased up to 2.5% or above 2.5% in exceptional cases. The total CCyB requirement will, therefore, comprise both the base rate and the cyclical rate components.

Assessment of the cyclical systemic risk

Latvijas Banka conducts and publishes an assessment of the cyclical systemic risk on a quarterly basis, using standard and comprehensive additional cyclical risk indicators as well as expert judgement. The assessment takes into account Recommendation of the ESRB on guidance for setting countercyclical buffer rates (ESRB/2014/1)[4] (hereinafter, ESRB Recommendation).

According to the ESRB Recommendation, the deviation of the private non-financial sector credit-to-GDP ratio from the long-term trend is used as a starting point for setting the CCyB rate. An increasing positive deviation of the credit-to-GDP ratio from its long-term trend[13] suggests that lending has reached excessive levels, posing risks to the financial system. The ESRB suggests the use of the broadly-defined (standardised) credit measure of the Basel Committee on Banking Supervision for measuring deviation, but the use of an alternative credit measure is also additionally allowed if it possesses better signalling qualities. In Latvia, a more narrowly defined measure of credit is considered more appropriate, which includes only loans issued to the private non-financial sector by banks and their leasing subsidiaries, as well as debt securities issued by the private non-financial sector and purchased by banks.

Based on the ESRB Recommendation, using the calculated credit-to-GDP gap, the CCyB benchmark rate is estimated: if the credit-to-GDP gap is equal to or lower than 2 percentage points, the CCyB benchmark rate is set at 0% of the risk-weighted assets. Where the gap exceeds 2 percentage points, the CCyB benchmark rate linearly increases from 0% to 2.5% when the credit-to-GDP gap reaches and exceeds 10 percentage points. The benchmark rate is calculated based on both standardised and narrowly-defined credit-to-GDP gap. A benchmark rate calculated using additional credit measure is used as a guide for the CCyB rate.

However, the credit-to-GDP gap is not used mechanically when deciding on the CCyB rate. This is especially true given that the indicator also has a downside: after a prolonged period of strong growth, the credit gap remains strongly negative for a long time in the post-crisis period. Thus, excessive lending before the crisis continues to affect lending trends even after the financial cycle has turned. Moreover, the data time series are rather short in Latvia, which makes it difficult to measure the credit-to-GDP gap.

Therefore, additional quantitative and qualitative information is taken into account in the assessment of cyclical risk and adequacy of the CCyB rate. Pursuant to the ESRB Recommendation, the assessment takes account of additional indicators characterising lending development, private debt burden, potential revaluation of real estate prices, resilience of banks' balance sheets, macroeconomic environment, external imbalances of the economy as well as potential mispricing of risks (see Table 1). These indicators are published on Latvijas Banka's website on a quarterly basis.

Table 1 **Additional indicators for assessment of the cyclical systemic risk and CCyB rate**

Lending development	Annual changes in adjusted bank loans and leasing loans; % Annual changes in bank loans to households; % Annual changes in the ratio of bank loans (including leasing) to seven-year average GDP; %
Private sector debt burden	Annual interest payments-to-GDP ratio of households and NFCs; % Debt service ratio of households and NFCs; %
Potential revaluation of property prices	Ratio of the house price index to the average net wage index; 2010 = 100 CSB's annual growth rate of the house price index; %
Resilience of banks' balance sheets	CET1 capital ratio; % Domestic loan-to-deposit ratio; %
Macroeconomic environment	Annual change in real GDP; % Annual change in HICP; %

[13] To calculate the long term trend of the credit to GDP ratio, the one sided Hodrick Prescott filter with the smoothing parameter value $\lambda = 400\,000$ is used, as advised.

External imbalances	Current account-to-GDP; %
Potentially mispriced risks	Spread between the interest rate on new housing loans to households over the six month EURIBOR; percentage points

For each of the five categories, a composite index has been developed. The indices are calculated as the mean of the sum of standardised indicators, expressed in terms of standard deviations. Indicators for which higher values correspond to lower cyclical risk are multiplied by –1. The long-term trend of the index, derived using the Hodrick–Prescott filter ($\lambda = 1600$) to smooth out short-term fluctuations, provides supplementary insights.

For each index, risk thresholds have been determined based on its historical values. Index values and their trends falling below the 45th percentile of the distribution correspond to low risk, those exceeding the 80th percentile correspond to high risk, and values within the 45th to 80th percentile range correspond to medium risk.

Latvijas Banka has developed a composite cyclical risk indicator as an additional tool for the assessment of cyclical systemic risk. It combines several groups of cyclical indicators (housing prices, lending dynamics, private sector debt burden, external imbalances) and shows the overall level of cyclical risks against the historical values of those indicators. The threshold values indicating the risk ranges are calculated based on the historical distribution of the indicator. The analysis tools are continuously improved in the light of experience gained, and the employed additional indicators may be reviewed.

Downturn and risk materialisation stage: the financial cycle starts to move downwards, and cyclical systemic risk diminishes, but in the worst-case scenario, the accumulated imbalances and risks materialise or a completely unexpected shock of a systemic magnitude occurs. Economic downturn may set in, and asset prices may collapse, stress in financial markets may increase, the probability of bank losses may increase substantially, or losses may already be real.

With the crisis deepening, banks may reduce lending which could add to the economic downturn. When assessing the weakening of lending during this stage, it is important to distinguish between the extent to which it is influenced by more prudent risk assessment and the extent to which it is influenced by the financial difficulties of banks (including potentially expected difficulties in the event of a further downturn) to meet the total capital requirements. As the actual capitalisation of banks approaches the level of total capital requirements, banks may start cutting back on lending in order to meet the requirements. A partial reduction of the CCyB rate would, therefore, provide room to absorb losses and continue lending.

The deepness and manifestations of this stage of the cycle may vary quite considerably, and it may affect the decision on the potential pace and degree of releasing the CCyB rate. For example, if the financial cycle is at the downward stage and cyclical systemic risk has already diminished, the cyclical component of the CCyB rate may be reduced. The weakening of the systemic risk, however, is assessed in the context of the degree of bank resilience as well as the fact whether this requirement impedes lending. At this stage of the cycle, it is also taken into account that the expected losses may materialise with a time lag; therefore, there could be situations when the resilience buffer cannot yet be partially or fully released.

Conversely, if risks materialise rapidly and deeply, and systemic losses occur, a sharp partial or a full release of the CCyB rate may be appropriate. Thus, decisions on reducing the CCyB rate should take into account the depth of the crisis, the degree of expected and actual losses, the resilience of banks, as well as the impact of the reduced CCyB rate on lending.

Recovery stage follows the financial crisis when most shocks have been overcome and balance sheets of banks are gradually starting to improve. Risk appetite remains generally low due to caution. Economic outlook is improving, yet uncertainty still prevails. The CCyB rate remains partially or fully released as long as it is necessary to support the post-crisis recovery.