



MAIN MACROPRUDENTIAL POLICY APPROACHES

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Bldg V, 12 Neglinnaya Street, Moscow, 107016 Bank of Russia website: <u>www.cbr.ru</u>

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INTRODUCTION

Macroprudential policy (MPP) has become popular around the world after the global financial crisis of 2007–2009. Before the crisis, macroeconomic stability (sustainably low inflation and a balanced budget) and resilient financial institutions were considered sufficient to ensure financial stability. The crisis has shown, however, that systemic risks should also be taken into account. To prevent bubbles from forming and collapsing, efficient regulation and supervision of the financial sector should be supplemented with MPP measures. In general, financial stability requires balanced monetary and fiscal policies, MPP limiting systemic risks, and microprudential policy ensuring the resilience of each financial institution.

The Bank of Russia has been implementing MPP to limit systemic risks since 2013 when it first introduced higher risk weights for unsecured consumer loans with a high effective interest rate (EIR). Higher capital requirements were then used to limit risks in mortgage lending and discourage foreign currency lending to companies. Since 2018, decisions on macroprudential add-ons to banks' capital have been made by the Bank of Russia Board of Directors. In 2023, the Bank of Russia started using macroprudential limits (MPLs) to influence the structure of unsecured consumer lending. In 2025, the Bank of Russia introduced a positive countercyclical capital buffer (CCyB) rate for the first time and was authorised to use MPLs in mortgage and car lending. Hence, the Bank of Russia currently has a wide range of MPP instruments.

Since 2013, the Russian financial system has experienced several credit cycles and three financial crises. The Bank of Russia's experience shows that MPP allows to contain the accumulation of vulnerabilities in the upward phase of the credit cycle and facilitates a faster recovery of the financial sector after the crisis.

This report describes the system of MPP decision-making in the Bank of Russia, outlines the procedure for using various instruments, and analyses the interrelations between MPP and other policies pursued by the Bank of Russia.

¹ Report on the Bank of Russia's anti-crisis measures (2024).

1. FINANCIAL STABILITY AND MACROPRUDENTIAL POLICY

1.1. Macroprudential policy objectives

Macroprudential policy is a policy aimed at ensuring the stability of the financial system (financial institutions, financial markets, and market infrastructure). Like monetary policy, MPP ultimately promotes the welfare of society.

Financial stability is a characteristic of a financial system that performs its functions (e.g. transforming savings into investments, ensuring settlements) even amid shocks and without negative consequences for the future sustainable economic growth.

The financial system may perform its functions while adversely affecting the potential for economic growth if it allows vulnerabilities to accumulate. One example of these vulnerabilities is a financial bubble associated with both accelerated growth of asset prices and overexpansion of credit, which leads to the excessive debt burden of households and companies. Vulnerabilities can amplify the negative consequences resulting from **shocks**, i.e. a pandemic, a sharp decline in oil prices, or sanctions, and cause larger losses in the financial system. Unlike vulnerabilities, shocks are difficult to predict. Coupled with existing significant vulnerabilities, a shock can disrupt the financial system.

MPP has the following related objectives:

Objective 1 is to reduce the scale of the financial system vulnerabilities and, consequently, decrease losses of financial market participants in case of a shock.

Objective 2 is to ensure that financial market participants accumulate capital and liquidity buffers that will support them if a shock occurs and will allow them to cover losses and continue their operations.

Various macroprudential instruments are used to reach the above objectives. For example, MPLs are only effective in achieving the first objective, while the CCyB is mainly used to meet the second one. Macroprudential measures can both prevent vulnerabilities from developing in the financial system (e.g. through accumulating capital buffers and increasing the limits on risky loans) and be part of anti-crisis measures taken in response to shocks as well as mitigate their adverse effects on the financial sector (e.g. through releasing capital buffers and lowering the limits). The macroprudential toolset is overall aimed at reducing losses resulting from cyclical and structural vulnerabilities.

Cyclical vulnerabilities are associated with risky behaviour of financial market participants and their clients. As a rule, these vulnerabilities occur during the upward phase of the credit cycle, which is accompanied by the accumulation of risks in the financial system. Further on, cyclical vulnerabilities amplify negative consequences of shocks during economic recession.

Examples of cyclical vulnerabilities and their interaction with shocks are as follows:

- accelerated growth of households' debt burden (vulnerability) will strengthen the negative impact of their declining real incomes (shock consequence) on the reduction in aggregate demand if borrowers have to further cut consumption to service the existing loans. The contraction of aggregate demand leads to a slowdown in economic activity and additional losses of financial market participants, including banks, e.g. due to increasing defaults on loans, including corporate ones; or
- accelerated growth of housing prices (vulnerability), given a sharp reduction in future effective demand (shock consequence), will create a risk of a significant price adjustment, cause a drop in the

collateral value for lenders (losses for banks in case of mortgage defaults), and increase borrowers' risks if due to life circumstances they need to sell their property at a lower price than the purchase one.

Structural vulnerabilities are shaped by the existing structure of relations and practices in the financial system and might not depend on the phase of the credit cycle.

Examples of structural vulnerabilities and their impact on shocks are as follows:

- high concentration of the financial system's claims on a few large companies increases risks if these borrowers' creditworthiness deteriorates; or
- high level of dollarization of the financial system significantly increases volatility in the foreign exchange market in case of shocks (e.g. a reduction in the current account balance or an outflow of foreign capital).

1.2. Monitoring of vulnerabilities

The implementation of MPP is preceded by the Bank of Russia's monitoring of financial stability. Specifically, this includes the identification of vulnerabilities and a quantitative assessment of their scale, usually through stress testing. A panel of systemic risk indicators is also used to identify and monitor vulnerabilities. A number of these indicators are predictive, i.e. they signal the accumulation of risks in advance. The Bank of Russia publishes the Financial Stability Review detailing the main vulnerabilities twice a year.

The indicators reviewed when monitoring the vulnerability related to households' debt burden are given below as an example.

- A breakdown of loans granted and debt balance by debt service-to-income ratio (DSTI) of borrowers.¹
- The share of loan payments in the disposable income of all households by lending type (mortgages, car loans, unsecured consumer loans, credit cards).
- A generational (vintage) analysis of the quality of loan servicing by borrowers based on data from credit history bureaus and bank reporting forms. The share of loans overdue for more than 30 days after the first three months on book; the share of loans overdue for more than 90 days after the first six, nine, or 12 months on book.
- The rate of accumulation of risky loans by banks (growth rates of outstanding loans). The rate of approval of loan applications by banks.
- Banks' macroprudential capital buffers and the rate of their accumulation.
- Banks' losses in the stress scenario.
- Indicators of possible circumvention of macroprudential regulation: the volume of credit flows from banks to the sector of microfinance organisations (MFOs) and instalments.

¹ DSTI shows which part of a borrower's income is used to repay loans and microloans.

Box 1. Macroprudential stress testing at the Bank of Russia

Macroprudential stress testing (MST) is central to systemic risk analysis. Its purpose is to evaluate the financial sector's resilience in various macroeconomic scenarios, taking into account the linkages between financial institutions.

MST¹ includes several stages: identifying entities subject to stress testing; developing scenarios; evaluating financial institutions' resilience on a solo basis; assessing group support capabilities; assessing contagion effects (the spread of a shock in the financial sector taking into account intrasectoral and intersectoral linkages); assessing secondary effects (the impact of the materialisation of financial sector risks on the real economy); and analysing the contribution of MPP and anti-crisis measures to the systemic risk reduction.

The Bank of Russia conducts top-down MST annually. The calculations use both data from financial statements of banks and companies and individual bank assessments obtained as part of supervisory stress testing. The entities subject to MST traditionally include the largest financial institutions, such as banks, insurance companies, non-governmental pension funds, brokers, leasing companies, development institutions (VEB.RF, JSC DOM.RF, JSC Russian Small and Medium Business Corporation), and the central counterparty. The stability of the largest corporate borrowers is evaluated using tailored financial models.

MST results are taken into account when elaborating financial stability policy, including when developing possible anti-crisis policy measures, calibrating the CCyB, sectoral capital buffers, and other macroprudential tools.

¹ For more details, see the description of the MST concept (<u>press release</u>; the <u>concept</u> itself is available in Russian only) and the <u>analysis of</u> systemic risks as part of MST.

2. MACROPRUDENTIAL TOOLSET OF THE BANK OF RUSSIA

2.1. Macroprudential policy instruments and their effect

The entities subject to the Bank of Russia's macroprudential regulation are banks and MFOs. The Bank of Russia has three macroprudential instruments at its disposal: the CCyB, add-ons to risk weights (macroprudential add-ons), which are factored into the calculation of capital adequacy ratios (CARs), and MPLs. The first instrument is only applied to banks, whereas macroprudential add-ons¹ and MPLs are used in relation to banks and MFOs.

VULNERABILITIES AND MACROPRUDENTIAL INSTRUMENTS

Table 1

Vulnerability type Vulnerability		Instrument	Current application
	Households' debt burden	MPLs	applied in all segments of retail lending
	nousellotus debt buildell	Macroprudential add-ons	applied in all segments of retail lending
Cyclical	Largest companies' debt burden	Macroprudential add-ons	effective from 1 April 2025
	Credit overheating in both retail and corporate lending	ССуВ	0.25% from 1 February 2025 and 0.5% from 1 July 2025
	Price imbalance in the housing market	Macroprudential add-ons, MPLs	limits and add-ons were established for mortgage loans with a small down payment
Structural A large share of corporate loans nominated in foreign currency		Macroprudential add-ons	currently not established, were effective until 2022

2.1.1. Macroprudential limits

Definition and mechanism

MPLs directly restrict the structure of lending, e.g. in terms of DSTI:2

 $MPL = \frac{\text{Loans / microloans}}{\text{Total loans / microloans}} \; \; \text{granted to borrowers} \; \; \text{with DSTI above a certain level over a quarter}$

¹ For MFOs, risk weights for loans issued to borrowers with DSTI above 50% are higher.

² Including acquired claims.

MPLs are established separately for the following types of loans.

LOAN TYPES AND THEIR FEATURES

Table 2

Instrument	Features of a loan / microloan that are taken into account when setting MPLs
Mortgage loan for existing housing	- DSTI - LTV - loan term
Mortgage loan for new housing under construction	DSTIdown paymentloan term
Mortgage loan for single-family home construction	DSTIdown paymentloan term
General-purpose consumer loan secured by residential property	- DSTI - LTV - loan term
Car loan / microloan	DSTIloan termamount of funds borrowed from an MFO
General-purpose consumer loan / microloan secured by a vehicle	DSTIloan termamount of funds borrowed from an MFO
Unsecured consumer loan / microloan without a credit limit	DSTIloan termamount of funds borrowed from an MFO
Unsecured consumer loan / microloan with a credit limit, including credit cards	DSTI loan term limit level at an MFO

MPLs are used to curb direct and indirect losses on the loan portfolio, especially during periods of stress, and to reduce the number of borrowers who may face difficulties in servicing their debts. Direct losses of banks and MFOs are associated with borrowers' defaults on loans. Increased losses deplete banks' capital, undermine their financial resilience, and lower their capacity to lend to the economy. Moreover, borrowers with high DSTI may cut down consumption to be able to service their loans. This reduces aggregate demand, slows down economic activity, and ultimately increases banks' risks related not only to their retail loan portfolio, but also to other types of credit claims.

MPLs push down the percentage of loans / microloans issued to borrowers with elevated credit risk over a quarter. A lower percentage of risky loans in total disbursements results in an improvement of a loan portfolio structure. MPLs are not directly applied to the structure of the loan portfolio as debt composition depends not only on lenders' actions (disbursement composition), but also on borrowers' actions, i.e. early loan repayments or late loan payments.

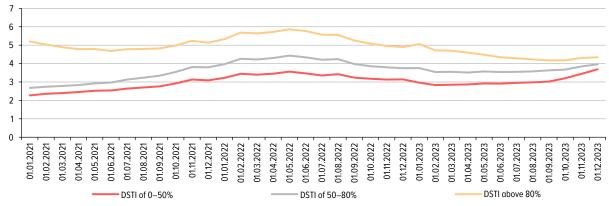
There are different approaches to calculating MPLs for loans with a credit limit (credit cards) and for loans without it. For loans with a credit limit, the MPL calculation uses the value of the established limit rather than the amount of a loan as the limit is controlled by the lender, while the borrower decides on whether to use the limit or not.

MPLs primarily limit the risks associated with an increase in households' debt burden. In mortgage lending, they also reduce the risks related to housing prices deviating from the fundamental levels, both due to demand outpacing supply and unfair practices, such as price gouging. They also limit the term of a loan, as lenders can artificially reduce the loan payment by elongating the loan term. At the same time, the probability of loans becoming overdue increases over a long time horizon, so such practices are also constrained by MPLs.

The Bank of Russia's annual analysis of loan quality based on the data about certain loans issued by the largest banks confirms the significance of the risk characteristics used in regulation: the closer their values are to the critical level, the higher the level of default on a loan is (Charts 1–3).

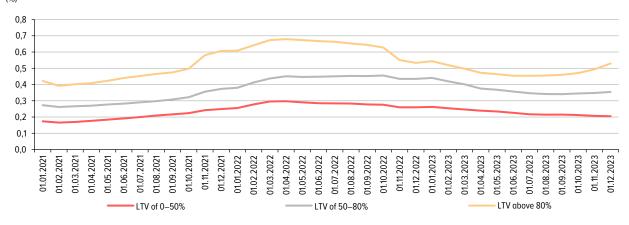
PERCENTAGE OF CASH LOANS THAT WERE NOT DEFAULTED AS OF THE REPORTING DATE BUT WERE RECOGNISED AS DEFAULTED OR RESTRUCTURED WITHIN 12 MONTHS AFTER THE REPORTING DATE, BY DSTI

Chart 1



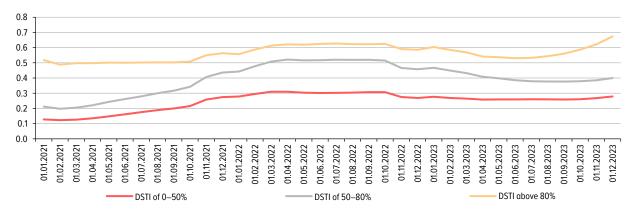
Source: Bank of Russia calculations.

PERCENTAGE OF MORTGAGE LOANS THAT WERE NOT DEFAULTED AS OF THE REPORTING DATE BUT WERE RECOGNISED Chart 2 AS DEFAULTED OR RESTRUCTURED WITHIN 12 MONTHS AFTER THE REPORTING DATE, BY LTV (%)



Source: Bank of Russia calculations.

PERCENTAGE OF MORTGAGE LOANS THAT WERE NOT DEFAULTED AS OF THE REPORTING DATE BUT WERE RECOGNISED Chart 3 AS DEFAULTED OR RESTRUCTURED WITHIN 12 MONTHS AFTER THE REPORTING DATE, BY DSTI



Source: Bank of Russia calculations.

Specific limit rates and loan characteristics are approved by the Bank of Russia Board of Directors. MPL rates are set in advance so that lenders can make sure they are ready for MPL changes, adjust their lending policies, and finalise their information systems.

LENDING SEGMENTS AND EFFECTIVE DATES OF MPL-RELATED DECISIONS

Table 3

Lending segment	Minimum period between publishing a decision on MPLs and its effective date
Unsecured consumer loans	1 month
Mortgage loans	2 months
Car loans	1 month

Consequences for creditors in case of failure to comply with macroprudential limits

Banks and MFOs must comply with the limits on a quarterly basis. For loans and microloans granted over a quarter in breach of MPLs, higher capital requirements³ are established, which, by their economic nature, are equivalent to direct deduction of claims under loans and microloans from capital, making it unprofitable for banks to breach the limits. In this case, the limit for the next quarter is reduced by the amount of MPL exceedance in the reporting period (in percentage points). A creditor in breach of MPLs may also be subject to supervisory action.

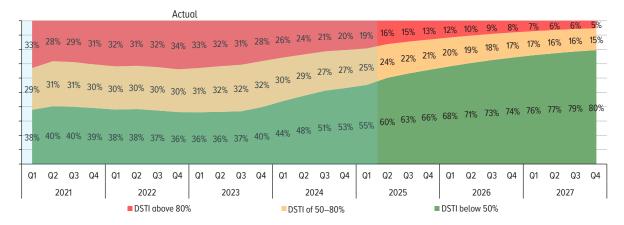
If banks or MFOs do not fail to comply with the MPLs established, these limits will not lead to the accumulation of capital buffers but will reduce the level of risk in the financial system by making the lending structure more balanced.

Results of application

Starting from 1 January 2023, the Bank of Russia applies MPLs for unsecured consumer loans. This has led to a reduction in the share of loans issued to borrowers with DSTI above 50% from 64% in 2022 Q4 to 24% in 2025 Q1 (from 64% to 45% in the portfolio).

OUTSTANDING UNSECURED CONSUMER LOANS BY DSTI

Chart 4



Sources: Reporting Forms 0409135 and 0409704, Bank of Russia calculations.

³ A 'prohibitive add-on' is applied during the entire term of a loan / microloan. For banks, the total risk weight including this add-on equals 1,250%; for microfinance companies it is 1,667%; and for microcredit companies it equals 2,000%.

According to forecast estimates, the structure of the consumer loan portfolio will be significantly better by the end of 2027. Specifically, the percentage of loans granted to borrowers with DSTI above 80% will drop to 5%, while that of loans issued to borrowers with DSTI of 50–80% will decrease to 15%. Due to the better portfolio structure, the projected default rate in a crisis scenario will be lower by 2027 than it would have been without MPLs.

MPL VALUES FOR UNSECURED CONSUMER LOANS FOR BANKS AND MFOS (EXCEPT FOR BANKS WITH A BASIC	
LICENCE)	

Table 4

				2023			2024		2025
	MPL, %	Loan type*	Q1, Q2	Q3	Q4	Q1, Q2	Q3	Q4	Q1-Q3
	DSTI of 50-80%	CL	_	_	30%↓	25%↓	20%↓	15%↓	15%
		CC			20%↓	10%↓	10%	10%	10%
Davidos	DSTI above 80%	CL	25%	25%	5%∔	5%	5%	3%↓	3%
Banks		CC					0%+	0%	0%
	Term of over five years	CL	10%	10%	5%	5%	5%	5%	5%
		CC					0%+	0%	0%
	DSTI of 50–80%	CL	_	_	30%↓	25%₊	20%₊	15%↓	15%
		CC			20%↓	15%↓	10%↓	10%	10%
MFO	DSTI above 80%	CL	250/	% 30%₊	15%↓	15%	10%	3%₊	3%
		CC	35%				0%+	0%	0%
	Term of over five years	-	_	_	_	_	_	-	_

 $^{^{*}}$ CL - cash loan (microloan without a credit limit); CC - credit card (microloan with a credit limit).

After MPLs were set for unsecured consumer loans, banks and MFOs started to grant general-purpose consumer loans secured by vehicles more frequently as MPLs were not applied to them initially. Before 2023, their share in total consumer loans across the sector was less than 1%. As early as 2024 Q2, it exceeded 3%, while in some banks it was up from zero to half of loans they issued. To curb these practices, the Bank of Russia raised risk-weight add-ons for loans issued to borrowers with DSTI above 50%.

Box 2. Improving DSTI calculation procedure

According to the instruction of the President of the Russian Federation,¹ creditors must be obliged to use upto-date official information to confirm an individual's income when making a decision on issuing a consumer loan to this borrower. The procedure for implementing the above instruction is currently being developed with the participation of ministries and agencies concerned. The deadline of its implementation was rescheduled from 1 June 2025 to 20 March 2026.

To make DSTI calculation more accurate, the following amendments to its calculation procedure will come into force in the near future:

- From 1 July 2025, banks and MFOs will not be able to estimate the average monthly income of a borrower based on the analysis of payments made by this borrower earlier on loans and microloans, data on which are provided by credit history bureaus.²
- From 1 January 2026, banks and MFOs will not be able to use models that were not validated by the Bank of Russia to assess borrowers' incomes for loans / microloans under \$\pm\$50,000 as well as for loans / microloans for purchasing a car and secured by it.

¹ Clause 3 of the list of instructions of the President of the Russian Federation No. Pr-1999, dated 29 September 2024.

² Relevant amendments were introduced by Bank of Russia Ordinance No. 7016-U, dated 24 March 2025, 'On Amending Bank of Russia Ordinance No. 6579-U, Dated 16 October 2023'.

On 1 April 2025, the Bank of Russia was authorised to set MPLs for mortgage loans, car loans, and general-purpose consumer loans secured by both vehicles and residential property. To prevent regulatory arbitrage and limit the risks associated with highly indebted borrowers, the Bank of Russia also set MPLs for general-purpose consumer loans secured by vehicles, which will become effective from 1 July 2025.

Limit calibration

MPLs are set to reduce the level of risks to the financial system, potential direct or indirect losses of banks, and the number of borrowers who may face problems with debt servicing. The structure of the mortgage portfolio in terms of DSTI and loan-to-value ratio (LTV), which the Bank of Russia plans to achieve using MPLs, should reflect a balance between developing the housing market (creditworthy individuals should have an opportunity to improve their housing conditions, and construction significantly boosts economic growth) and limiting systemic risks (it is important to prevent a mortgage crisis).

Making the lending structure less risky, particularly in the mortgage segment, is necessary not only for curtailing banks' losses in mortgage lending and project financing (potentially those could be absorbed by capital buffers). The following external effects of a possible mortgage crisis on households and the economy should also be taken into account:

1. In case of mass defaults of vulnerable households, risks to social stability may occur. If little attention is paid to social stability risks at the level of organisations and the economy and it becomes a systemic issue, this can lead to a reverse transfer of risks to the financial market in the form of threats to financial stability. Risks to social stability might materialise if the share of borrowers who are more susceptible to adverse effects is significant in a certain population group. Although there have been no such precedents to date, a similar crisis of foreign currency mortgage borrowers erupted in 2015 when they could no longer service their mortgages due to a sharp depreciation of the ruble. Despite the fact that foreign currency loans only accounted for 4% of the mortgage loan portfolio in early 2015, the number of mortgage borrowers who could have lost their homes was substantial as compared to all foreign currency borrowers (as estimated by the Bank of Russia, around 18,500 individuals had outstanding mortgage loans denominated in foreign currency as of the end of 2016). The government had to solve this problem through restructuring foreign currency mortgage loans.

Another example is the microfinance market. Albeit not systemically important (the share of the MFO market in the total portfolio of consumer loans and microloans was 3.9% as of 1 April 2025), it can still create social risks. The percentage of MFOs' borrowers equals 20% of the total number of banks' and MFOs' borrowers, which indicates high social significance of this lending segment. Furthermore, MFOs' services are often used by the poorest households, which are particularly vulnerable to economic shocks. In certain Russian regions, social significance of the microfinance market is even higher. In the Republic of Tyva, for example, MFOs' borrowers account for 40% of all regional borrowers and 15% of the population.

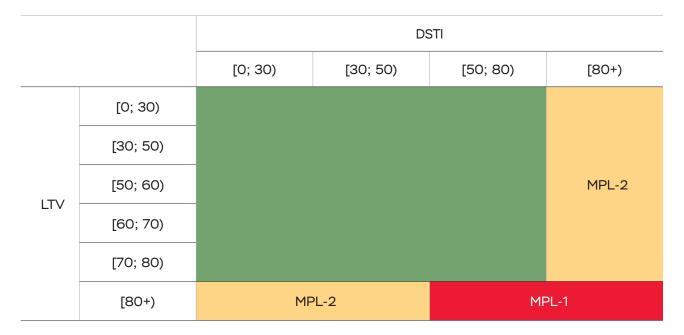
2. Reducing consumer spending: even if households continue servicing their mortgages in order not to lose homes, their high debt burden amid crisis may cause them to sharply cut down consumption. This in turn will lead to a decrease in aggregate demand and slower economic activity growth.

The materialisation of these risks can trigger feedback loops in the financial system, which will amplify the initial macroeconomic shock and might lead to a shutdown in the market of mortgages and housing financing. These effects should be taken into account when calibrating MPLs. To assess macroeconomic effects of households' defaults or a reduction in their consumption during crises, the Bank of Russia developed a DSGE model⁴ that factors in different levels of defaults depending on DSTI and LTV parameters of the mortgage portfolio. This model also takes into account how direct losses on mortgage loans can have a downward impact on banks' capital, thus also affecting lending. A contraction of lending exacerbates the slowdown in economic activity and investment growth. In addition, the model considers how aggregate demand is influenced by lower consumption of over-indebted borrowers facing a reduction in incomes but still continuing to service their loans.

A bigger percentage of risky loans makes mortgage lending less resilient to potential shocks and might lead to a more considerable drop in GDP in case of stress. Starting from July 1, 2025, the Bank of Russia has set limits in the MPL-1 and MPL-2 zones. MPL-1 equals 2% of loans issued for new housing under construction and 10% for existing housing. MPL-2 equals 5% for new housing under construction and 10% for existing housing. In 2025 Q1, the share of MPL-1 and MPL-2 in mortgages granted was 3% and 6%, respectively, and in the structure of outstanding loans it was 23% and 28%, respectively.

SEGMENTS WHERE MPL RATES WERE ESTABLISHED

Table 5



When making decisions on setting MPLs in mortgage lending, the Bank of Russia takes into account the situation in the mortgage market and project financing as well as ensures a balance between risks and affordability of retail lending.

After MPLs prove effective in reducing the level of risks in the financial system, their rates can be reviewed over time. For example, if housing prices soar (the so-called price bubble in the housing market), limits can be tightened to factor in rising prices. Vice versa, when the price gap narrows, MPLs for down payments can be eased.

⁴ The model was developed by the Research and Forecasting Department of the Bank of Russia.

2.1.2. Macroprudential add-ons

Definition and mechanism

Macroprudential add-ons are the first macroprudential instrument to appear in the Bank of Russia's toolset. The regulator started applying higher capital requirements to limit risky consumer lending as early as 2013. In 2018, the Bank of Russia was authorised to change capital requirements for risky loans through setting macroprudential add-ons, which is done by its Board of Directors.

Macroprudential add-ons can apply to the following types of credit claims.

LOAN TYPES AND THEIR FEATURES

Table 6

Credit claim type	Features of a loan / microloan that are taken into account when setting macroprudential add-ons
Mortgage loan for existing housing	- DSTI - LTV
Mortgage loan for new housing under construction	- DSTI - down payment
Mortgage loan for single-family home construction	- DSTI - down payment
General-purpose consumer loan secured by residential property	- DSTI
Car loan	- DSTI
General-purpose consumer loan secured by a vehicle	- DSTI
Unsecured consumer loan / microloan without a credit limit	- DSTI - EIR
Unsecured consumer loan / microloan with a credit limit, including credit cards	- DSTI - EIR
Retail loan denominated in foreign currency	- DSTI
Corporate loan denominated in rubles or in foreign currency or investment in bonds of highly leveraged* companies	
Corporate loan denominated in foreign currency or investment in bonds of exporters and non-exporters	
Corporate loan denominated in rubles and issued for commercial property construction	

^{* 1)} The total outstanding debt of a borrower and its related parties to a bank exceeds ₽50 billion and 2% of the bank's capital.

The size of a capital buffer to be made by a bank when granting a loan is calculated using the following formula:5

Required capital = target capital adequacy ratio⁶ \times risk weight \times (1+add-on) \times loan amount net of loss provisions

The higher the add-on is, the more provisions a bank has to make when issuing a loan. Macroprudential add-ons are primarily applied to ensure that banks accumulate capital buffers when granting risky loans. Capital buffers are accumulated to cover losses and avoid a credit crunch during crises due

²⁾ The ratio of a borrower's debt on a consolidated basis to the banking sector's capital exceeds 2% (if there are IFRS consolidated financial statements) or the amount of a borrower's liabilities to a bank on an individual basis exceeds P50 billion and no less than 2% of the bank's capital (if there are no IFRS consolidated financial statements).

3) A company is highly leveraged, i.e. its interest coverage ratio adjusted for depreciation is less than 3.

In accordance with the draft new version of Bank of Russia Instruction No. 199-I 'On Required Ratios and Capital Adequacy Buffers for Banks with a Universal Licence'.

⁶ The CAR target refers to the green-area level established by a bank as part of ICAAP. As a rule, this level is higher than the minimum regulatory value of the ratio as it includes add-ons.

to the capital shortage in the banking sector. These buffers may be used when the Bank of Russia releases add-ons during a crisis period.

Before the Bank of Russia was authorised to set MPLs in all segments of retail lending, add-ons had also been used to limit the issuance of risky loans. In the corporate lending segment (foreign currency loans, loans to large highly leveraged companies), macroprudential add-ons are still used to discourage risky lending since MPLs cannot be set.

The add-ons are established in relation to new loans and do not apply to loans that were issued before the introduction of macroprudential add-ons. As banks factor capital requirements in their interest rates, the application of add-ons to loans that were issued earlier would lead to an unpredictable reduction in the loan portfolio profitability for banks.

The decision on establishing add-ons and loan parameters is made by the Bank of Russia Board of Directors. When capital requirements are tightened, the decision comes into force no sooner than a month⁷ after it is made to give banks time to prepare. When they are eased, the decision becomes effective immediately.

Macroprudential add-ons affect credit supply through the following two channels.

The first channel is the direct impact on capital adequacy ratios (CARs). Banks that have small capital buffers may fail to comply with the ratios or add-ons to them if they continue providing risky loans at a high rate. In the short term, the slowdown in lending growth in this group of banks can be offset by the expanding loan portfolio of banks with considerable capital cushions that are ready to reduce them for a certain period in order to increase their market share. In this case, the risk in the system might not decline overall.

The second channel is the impact on lending profitability (i.e. whether the margin on lending ensures sufficient capital growth as compared to a higher regulatory burden on capital). Elevated capital requirements decrease lending profitability. Banks making high profit may use some part of it in order to maintain the lending volumes if the profitability level is acceptable. However, other banks will have to price in their costs, which will result in lower demand for loans, or stop providing certain types of risky loans, e.g. loans with a high EIR and/or issued to borrowers with high DSTI. If capital requirements are tightened, lending profitability may drop to a level where issuing risky loans will become economically unreasonable even for banks with large capital cushions and margins. In this case, the effect of add-ons will be similar to that of MPLs, prohibiting banks from granting risky loans.

Capital buffers may be used by banks to absorb losses or build up lending when the Bank of Russia reduces add-ons for loans issued earlier (release of the macroprudential capital buffer). Releasing the capital buffer accumulated earlier amid a slowdown in lending accompanied by a return of the economy to a balanced growth path would be inadvisable.

Consequences for creditors in case of failure to comply with macroprudential add-ons

Banks and MFOs factor risk-weight add-ons into their calculations of CARs. If done incorrectly, this will distort the calculation of the ratio, and supervisory measures may be applied against the respective creditor.

⁷ Before 1 February 2025, no sooner than two months.

Results of application

The Bank of Russia has gained extensive experience in using macroprudential add-ons as the Russian market has faced several episodes of credit overheating in consumer lending over the past decade.

An econometric analysis of the efficiency of applying macroprudential add-ons in unsecured consumer lending over 2016–2021 shows that macroprudential add-ons significantly affect the distribution of new disbursements by EIR and DSTI levels.⁸ Nevertheless, the study found no statistically significant influence of macroprudential add-ons on the growth rates of outstanding debt or lending volumes.

During the COVID-19 pandemic, the Bank of Russia released the accumulated macroprudential capital buffer both for mortgages and for unsecured consumer loans for a total amount equivalent to \$\textstyle{2}400\$ billion. In early 2022, the amount of the capital buffer released for retail and corporate loans equalled around \$\textstyle{2}900\$ billion. The release of the accumulated buffer made it possible to support lending during the sanctions crisis.

Calibration

When determining the required amount of the macroprudential buffer, the Bank of Russia takes into account the need to ensure that banks maintain their capital reserves at a level sufficient to absorb losses and continue operating in case of crisis.

Box 3. Calibration of macroprudential add-ons

The quantitative assessment of potential losses is based on the model developed by Vasicek,¹ suggesting that the percentage of defaults depends on the materialisation of the systemic factor (S), which is a random value, and the values of PD_{ttc} (the long-run default rate over an economic cycle) and ρ (borrowers' asset dynamics correlation):

$$DR(S) = N\left(\frac{\sqrt{\rho}*S + N^{-1}(PD_{ttc})}{\sqrt{1-\rho}}\right). (1)$$

According to (1), the only source of unexpected losses is the systemic credit risk S, which reflects the integral impact of the macroeconomic environment on the solvency and default probability of all borrowers. This risk is external for banks and cannot be mitigated through diversification.

That said, the Vasicek model defines a systemic risk as an unpredictable random external shock that does not depend on its previous values:

$$S \sim N(0,1)$$
. (2)

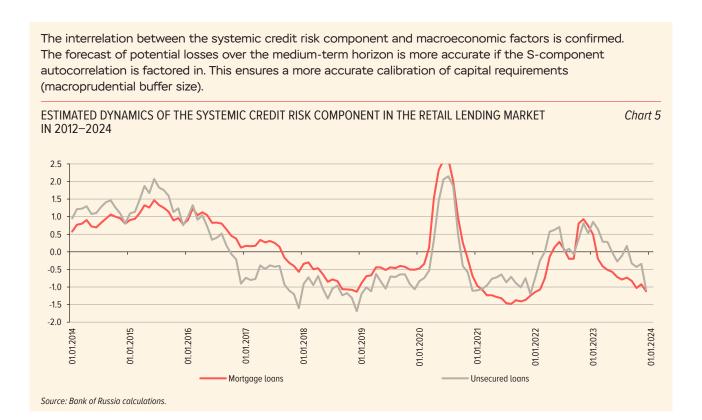
Based on formulas (1) and (2), microprudential regulation² establishes requirements for a minimum capital size at the level that would be sufficient to cover losses in 99.9% of all possible scenarios of a systemic risk materialisation. This corresponds to the use of a constant value $S = N^{-1}(0.999) \approx 3.09$ in (1).

The actual dynamics of the S-component in the retail lending market in 2012–2023 indicate an autocorrelation of this indicator and the need to determine (2) when forecasting the risk related to the retail loan portfolio (Chart 5). The value of the S-component was obtained through reverse calculation from (1) based on the data on the default rate (DR) during each period and the estimated values of PD_{ttc} and ρ (default correlation).

¹ Vasicek O. (2002). Loan portfolio value. *Risk*, December, pp. 160-162.

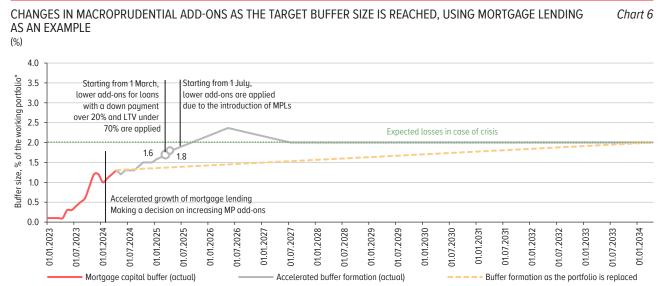
² Bank of Russia Regulation No. 845-P, dated 2 November 2024.

⁸ Bank of Russia report 'Assessing the effectiveness of the Bank of Russia's macroprudential measures in unsecured consumer <u>lending</u>' (December 2021).



The application of MPLs decreases the share of the riskiest loans with higher default probabilities in the loan portfolio, thus allowing banks to form a smaller macroprudential buffer on account of macroprudential add-ons.

After the Bank of Russia decides on the required size of the macroprudential capital buffer, it proceeds to determine the timeframes for achieving it. If the decision on the buffer increase is taken at the moment when banks are accumulating risks, i.e. usually during the upward phase of the credit cycle, the regulator might require banks to form their buffers faster. In this case, add-ons may be established at a higher level exceeding the historical credit risk. This is also necessary as add-ons are applied in relation to new loans, and the loan portfolio takes a long time to fully transform. However, as the required size of the buffer is achieved or the rate of risk accumulation in the banking sector goes down, add-ons might be reduced.



^{*} Portfolio net of loss provisions.

Sources: Reporting Forms 0409135 and 0409114, Bank of Russia forecast.

2.1.3. Countercyclical buffer

Definition and mechanism

The CCyB is applied to make sure that banks accumulate capital buffers, which can be used during crises, i.e. it is formed when lending expands rapidly and is released in the event of a crisis. This macroprudential instrument was developed by regulators in response to the global financial crisis of 2007–2009 and is part of the Basel III set of measures. Each country establishes its own national buffer, while banks operating in several countries take into account the buffers of all the respective countries to calculate the final one.

The final CCyB value is calculated using the following formula:

CCyB = percentage of credit claims on Russian residents × CCyB in Russia + percentage of credit claims on non-residents × CCyB abroad

For calculating the CCyB, credit claims include not only retail and corporate loans, but also corporate bonds and contingent credit liabilities.

Although the CCyB is mainly used to ensure capital buffer formation, its introduction can also influence banks' credit activity. For example, this effect may occur in banks with a low CAR. For these banks, slower growth or even a reduction in the amount of assets (deleveraging) could become an alternative to the capital increase. In addition, banks can factor additional capital requirements in their loan rates, which can also reduce the volume of new loans.

Global experience suggests that the CCyB is used in the event of an accelerated lending growth both in certain segments and across the market as a whole. To understand whether the situation requires the CCyB application, the Basel Committee on Banking Supervision initially recommended using the credit gap indicator.

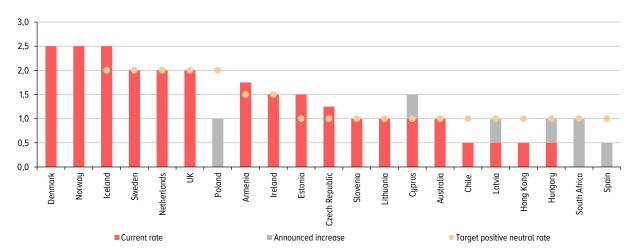
A credit gap is the difference between a country's actual credit-to-GDP ratio and its long-term trend. If the credit gap is negative, the situation can be characterised as a downward phase of the credit cycle. When the credit gap is positive, this is an upward phase of the credit cycle.

During the COVID-19 pandemic, banks of many countries faced losses. Before the pandemic, countries did not experience the periods of active lending growth, so they did not introduce the CCyB, as a rule. Therefore, regulators had little options to support banks during the pandemic. Considering this experience, more and more regulators believe it reasonable to raise the CCyB even when lending is not growing at an accelerated pace in order to form an additional capital buffer (Chart 7), which can be used in case of crisis (the so-called positive neutral CCyB rate).

The Bank of Russia makes decisions on setting a CCyB rate based on the analysis of a wide range of indicators characterising the credit cycle phases. The level of the banking sector's systemic risks associated with the particular phases of the credit cycle is determined based on the monitoring of credit activity dynamics (including in individual segments), banks' and their borrowers' financial positions as well as the dynamics of banks' capital reserves. The above indicators are analysed taking into account the expected change in macroeconomic conditions and other financial parameters.

ESTABLISHED, ANNOUNCED, AND TARGET RATES OF THE COUNTERCYCLICAL BUFFER BY COUNTRY

Chart 7



Source: regulators' websites.

Consequences for creditors in case of failure to comply with the countercyclical buffer

A bank adds the final CCyB value to the minimum value of the ratio, but a failure to comply with the CCyB is not deemed to be a breach of the ratio. A failure to comply with the CCyB restricts a bank in terms of earnings distribution because part of its earnings is retained in capital and cannot be paid out to shareholders.

Application experience

For a long time, the Bank of Russia did not use the CCyB as retail lending was growing faster than corporate lending for most of the last 10 years, while risks were minimised mainly through the introduction of macroprudential add-ons for retail loans.

In 2024, the regulator made the decision to set a positive CCyB rate for the first time. In November 2024, the following schedule of its increase was approved: 0.25% of risk-weighted assets from 1 February 2025 and 0.5% of risk-weighted assets from 1 July 2025. This measure is aimed at enhancing banks' resilience and ensuring balanced growth of lending to the economy. Moreover, the banking sector's CAR (the N1.0 ratio) declined from 13.3% to 12.5% over 2024, despite banks' high profits. Owing to the uneven distribution of capital across the banking system, certain banks experienced an even more considerable decrease in the difference between their actual values of the ratio and the minimum required value thereof. In this context, buffers had to be accumulated faster, primarily to cover risks associated with corporate lending.

Calibration

The target rate of the CCyB is determined based on the results of the MST. The amount of losses that is not covered by macroprudential capital buffers (macroprudential add-ons) should be covered by the CCyB. The Bank of Russia mainly uses the CCyB to cover the risks related to the corporate loan portfolio and investments in corporate bonds because losses on retail loans are covered by macroprudential add-ons.

The Bank of Russia assumes that the CCyB rate should equal 1% of risk-weighted assets in the long term, although it can be adjusted depending on the level of risk related to the loan portfolio.

2.2. Application of macroprudential instruments

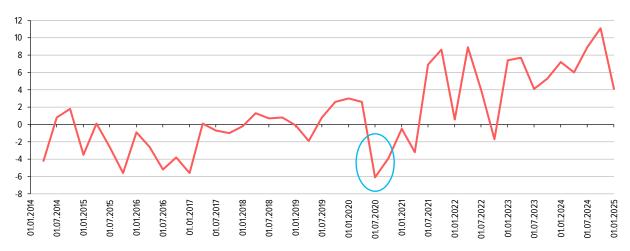
Countercyclical effect of macroprudential policy

MPP has a countercyclical effect as it is aimed at limiting systemic vulnerabilities by constraining the procyclical dynamics of asset prices and lending, procyclical easing of lending standards, and debt burden growth. Macroprudential regulation is tightened during the periods of credit boom when banks ease their risk policies and vulnerabilities build up. Conversely, it is eased during crises to enable banks to absorb additional losses and avoid a credit crunch.

The countercyclical effect is primarily achieved through the CCyB and macroprudential add-ons initially designed to mitigate the adverse impact of cyclical fluctuations in lending. MPLs may remain unchanged even in case of stress (it is also important to maintain a healthy lending structure when lending is weak). Nevertheless, MPLs can be eased if necessary as in, for example, 2020 Q2 when households' incomes temporarily declined due to the pandemic.

REAL DISPOSABLE INCOMES OF HOUSEHOLDS (% YOY)

Chart 8



Source: Rosstat.

Given that the DSTI calculation method involves calculating incomes for the past year, this downturn would lead to an underestimation of households' incomes over the course of an entire year. MPLs were not introduced at that time, but if they had been, they should have been eased taking into account a temporary reduction in households' incomes, which is equivalent to a reduction in the time for which DSTI is calculated. Similarly, it may be reasonable to ease MPLs on LTV for mortgages if the housing market experiences a correction.

COUNTERCYCLICAL EFFECT OF MACROPRUDENTIAL INSTRUMENTS

Table 7

	Application			
Instrument	in case of credit boom	in case of lending decline or crisis		
Macroprudential limits	Should be tightened to limit risky lending and losses	Should be eased with respect to LTV in mortgage lending if the price gap narrows or prices deviate downwards from the equilibrium level		
Macroprudential add-ons	Should be increased to ensure additional buffer accumulation by banks and to limit risky lending	The accumulated capital buffer should be partially or fully released with respect to existing loans, and add-ons for new loans should be reduced / cancelled to support the lending potential in the face of expected credit loss growth above the long-term level		
Countercyclical buffer	Should be increased to ensure additional buffer accumulation by banks if corporate lending is expanding at an accelerated pace	Should be decreased to support the lending potential in the face of expected credit loss growth above the long-term level or for other reasons that are putting a strain on banks' capital		

Cumulative effect of macroprudential policy instruments

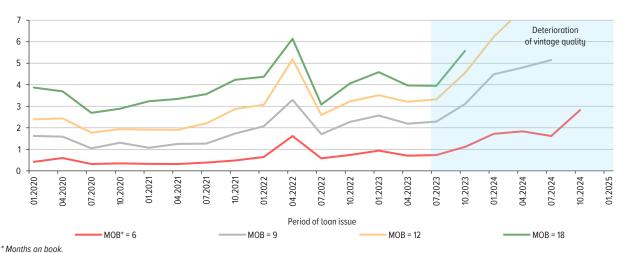
To ensure financial stability, it is advisable to use a combination of various macroprudential instruments. That said, it is important to consider their mutual impact and remove any double-counting of risks. The tighter MPLs are, the smaller macroprudential buffer banks need to overcome the crisis.

However, MPLs do not replace the need to form capital buffers as they cannot eliminate all credit risks.

The experience of MPL application in 2023–2024 also showed that it would be reasonable to use them in conjunction with macroprudential add-ons. For example, starting from 2023 H2, the solvency of borrowers, including those with a low debt burden, began to decline (Chart 9). This was due to the fact that higher-risk borrowers were taking out loans at higher rates (there was an adverse selection of borrowers). For this reason, in 2024, the Bank of Russia raised macroprudential add-ons for unsecured consumer loans twice to ensure that banks had capital cushions to cover losses in case of materialisation of risks related to those loans.

CASH LOANS OVERDUE 90+ DAYS BY LOAN VINTAGE (%)

Chart 9



Source: Reporting Form 0409704.

The growing vulnerability of the financial system can be associated not only with the lending standards, but also with the level of credit penetration in the economy and feedback loops in stress conditions (when a deterioration in the economy leads to an additional decrease in individuals' solvency). A rising number of borrowers and the related growth of households' debt burden at the macro level, even if individual borrowers' debt burden is relatively low, may exacerbate the vulnerability of the economy and the entire financial system to shocks. For example, in an economy where each person has a loan, the exposure of consumer demand to shocks related to real incomes is higher than in a similar economy where every third person has a loan. In this context, the tightening of lending conditions amid crisis would lead to a greater reduction in aggregate demand, which would ultimately hit the financial system harder. The capital reserves accumulated by banks to cover historical losses observed at a lower level of debt burden could turn out to be insufficient as debt burden would amplify shocks in the economy and lead to a greater contraction in aggregate demand. This indicates the need to combine the instruments helping to limit systemic risks and build up banks' capital buffers.

Making decisions on macroprudential policy instruments

The Bank of Russia makes decisions on macroprudential instruments in the following order.

- 1. First, the regulator identifies the acceptable risk level in the financial system (the risk profile of borrowers and, accordingly, the level of potential losses on the loan portfolio) to set appropriate MPLs for retail loans. Limits are used to decrease the share of higher-risk loans issued by banks, which allows banks to reduce their direct and indirect losses during crises as well as the number of borrowers that could face difficulties in servicing their loans.
- 2. Macroprudential add-ons are applied for fine-tuning purposes and are set at such a level so as to cover potential losses during a crisis for a specific lending segment if these losses are not covered by MPLs.
- 3. Add-ons for foreign currency-denominated credit claims on legal entities are established to mitigate structural vulnerability associated with the banking sector's dollarization.
- 4. Once MPLs and macroprudential add-ons are established, the regulator estimates banks' potential additional losses in case of crisis and assesses whether banks' capital cushions, excluding macroprudential ones, are sufficient to enable them to cover losses and continue their operations. The CCyB covers additional losses on other assets that are not covered by sectoral buffers.

Preventing regulatory arbitrage

MPP instruments can be applied to various financial market participants and segments. When MPP affects different financial market participants or segments to a different extent, this may create undesirable incentives for credit institutions to shift their lending activity. For example, the application of tighter MPLs to banks as compared to MFOs may encourage banks to open subsidiary MFOs and redirect loan applications to these MFOs. This can make a buy-now-pay-later (BNPL) facility a more popular option. Therefore, even if BNPL operators are not subject to regulation, the DSTI calculation should take into account a borrower's liabilities under BNPL in addition to other credit claims.

This is also true in terms of the impact on different market segments. Specifically, when macroprudential add-ons are established for loans to large highly leveraged companies, similar requirements also apply to investments in these companies' bonds.

To prevent regulatory arbitrage, macroprudential instruments should apply equally to all market participants and segments with a similar risk profile. Exceptions are possible when certain segments

do not pose any threats to financial and social stability. For example, the Bank of Russia does not set MPLs for banks with a basic licence since their portfolio of unsecured consumer loans does not exceed \$20 billion.

Operational procedure for making macroprudential policy decisions

Proposals on the use of macroprudential instruments are prepared by the Bank of Russia Financial Stability Department and reviewed by the Financial Stability Committee (FSC). Representatives from the supervisory, monetary policy, and conduct supervision units participate in the consideration of proposals at the FSC meeting. Furthermore, FSC members assess the impact of the proposed measures on the stability of banks and MFOs as well as financial inclusion. The FSC gives a recommendation to the Bank of Russia Board of Directors, which makes the final decision on the use of macroprudential instruments. Before making this decision, the Bank of Russia discusses possible options with market participants.

Macroprudential policy communication

The reasoning behind MPP decisions is described in detail in Bank of Russia press releases and the Financial Stability Review, which is published twice a year.

The Bank of Russia plans to <u>review decisions on all macroprudential instruments comprehensively</u> on a quarterly basis. This approach will allow the regulator to take into account their cumulative effect on financial institutions in its decision-making process. Starting from 2026, the Bank of Russia will publish the schedule of the Board of Directors' MPP meetings on its website.

3. INTERRELATIONS BETWEEN MACROPRUDENTIAL POLICY AND OTHER POLICIES PURSUED BY THE BANK OF RUSSIA

For each of the economic policy targets, there should be a different instrument that is the most efficient for achieving it. This famous principle of an effective economic policy was formulated in the 1950s by Nobel laureate Jan Tinbergen. Modern central banks, including the Bank of Russia, generally adhere to this principle of independent targets and instruments in their monetary and financial stability policies.¹

Using monetary policy to ensure financial stability

After the global financial crisis of 2007-2009, many economists (including well-known economists from the Bank for International Settlements and the International Monetary Fund) began to argue that monetary policy should not only be aimed at ensuring price stability, but also at preventing bubbles (lean against the wind), especially if risks arise simultaneously in many segments of the financial system.

However, this proposal has not been extensively used in practice. Over the 2010s, Sveriges Riksbank (Sweden's central bank) used monetary policy tools to limit the risks associated with households' debt burden. This experience was considered negative as the impact on the debt burden was minor, while monetary policy was too tight, causing inflation to deviate downwards from the target. Hence, this policy was abandoned in Sweden.

Nevertheless, albeit inefficient for curbing the debt burden, monetary policy measures may be necessary to ensure financial stability in stress conditions. During the 2007–2009 crisis, leading central banks were cutting their policy rates to the minimum levels not only because of the economic recession and deflation, but also to support the financial sector in the context of a lack of trust and the interbank lending market shutdown. In contrast, emerging market economies frequently face the need to raise policy rates to ensure financial stability amid capital outflows and declining confidence in the national currency. The Bank of Russia increased the key rate in December 2014 and March 2022 primarily to ensure financial stability when the foreign exchange market was experiencing high volatility and banks were facing outflows of ruble funds. Besides maintaining monetary conditions tight enough to slow down inflation and stabilising inflationary expectations of economic agents, key rate increases allowed the regulator to calm the frenzy in the foreign exchange market and make ruble savings more attractive to investors, thus supporting financial stability.

Using macroprudential policy to ensure price stability

The practice of using MPP to achieve monetary policy objectives is not widespread. The Central Bank of the Republic of Türkiye classifies macroprudential measures as inflation targeting instruments and tightens MPP when lending grows at an accelerated pace. Nevertheless, Türkiye's experience demonstrates that disinflation is mainly achieved through consistent monetary policy.

Both policies have an impact on lending but through different channels: monetary policy influences demand, while MPP effects credit supply and, depending on the instrument, lending in general (CCyB) or its individual segments (macroprudential add-ons and MPLs).

¹ For the key monetary policy principles related to financial stability, see the research paper 'Monetary Policy and Financial Stability' prepared in 2023 as part of the Monetary Policy Review.

MPP tightening only in certain lending segments will not create a sustainable disinflationary effect as banks will be able to use their capital to issue loans in other segments. With this approach, MPP can only influence the structure of lending or lead to a slowdown in credit activity in individual segments, but cannot limit overall lending growth. Even within each lending segment, MPP tightening might not have any impact on the speed of credit expansion since banks can issue more of those loans that are not affected by MPP.

On the other hand, if MPP is tightened simultaneously across all lending segments, as in the case of a CCyB increase, this may lead to a rise in interest rates on both retail and corporate loans.² To ensure return on equity at the target level, banks can factor higher capital requirements in interest rates on loans for all borrowers. At the same time, the transmission of MPP decisions into lending rates will be different for each bank and will depend on the difference between a bank's actual value of the ratio and the minimum value thereof, target values of the ratios, and other pricing parameters.

Furthermore, the use of MPP instruments for price stability purposes may be inconsistent with the financial stability objective and result in either an excessively rigid assessment of risks or their underestimation. The most obvious and adverse example is when MPP is eased to stimulate the economy in the context of a downward deviation of inflation from the target, which can result in the accumulation of risks to financial stability.

The above effects make MPP instruments unsuitable for direct use for monetary policy purposes.

As for monetary policy, it determines interest rates in the economy, affecting businesses', investors', and households' demand for loans, deposits, and other financial instruments. Thus, it directly influences their investment choices and decisions on consumption and savings. In addition, monetary policy and its communication have a more pronounced impact on inflation expectations in the economy as compared to MPP, including on account of its subject – interest rates – being more accessible to a large number of economic agents. All of the above ensures a notable monetary transmission effect on inflation.

The best way for MPP to assist monetary policy is to ensure stability of the financial sector. Only a resilient financial sector is capable of ensuring smooth processing of payments and the transformation of savings into investments.

Mutual impact of monetary and macroprudential policies

Even though each of the policies has its own objectives and is implemented independently, the Bank of Russia certainly takes into account their mutual impact. MPP decisions are largely associated with cyclical fluctuations in the financial sector, which is why the Bank of Russia considers key rate decisions when taking measures. MPP measures may in turn influence lending dynamics and interest rates in individual segments. For example, amid the tightening of banking regulation measures (liquidity coverage ratio requirements were reintroduced) and MPP in October–November 2024, interest rates on deposits and loans rose substantially, with spreads between them and the key rate also expanding. When deciding on the key rate in December 2024, the Bank of Russia took into consideration the fact that the above had led to additional monetary tightening, which was not attributable to the monetary policy effect and was more significant than expected earlier. As a result, taking into account other factors, the Bank of Russia decided not to raise the key rate, having deemed the achieved monetary tightness to be sufficient for meeting monetary policy objectives at the moment.

When there is efficient competition in the lending market and banks' profitability is high enough, MPP tightening would not necessarily have to translate into banks' interest rates, but could rather be offset by a decrease in banks' profitability.

Sometimes, monetary policy and MPP can have a similar impact on lending, and sometimes, their effects are opposite to each other. This is due to the fact that financial cycle and business cycle phases do not always coincide. Studies show³ that the financial cycle mainly reflects fluctuations of asset prices and debt levels, whereas the business cycle relates to the dynamics of GDP, inflation, and employment. Their possible divergence is due to their different nature: the financial cycle follows lending dynamics, while the business cycle is linked to real output and consumption. Therefore, the accumulation of risks in the financial system necessarily requires special monitoring. For example, in 2019 H2, the Bank of Russia was cutting the key rate in response to inflation slowdown, but accelerated growth of consumer lending and a large share of over-indebted borrowers required MPP tightening. In October 2019, the Bank of Russia introduced DSTI into regulation and increased macroprudential add-ons for loans issued to borrowers with high DSTI. These measures had a positive impact on the lending structure, and yet the growth rate of lending remained high.

In recent years, on the contrary, both monetary policy and MPP have had a restraining effect in Russia. High interest rates and macroprudential measures (MPLs and macroprudential add-ons) facilitated a strong deceleration in consumer lending from as early as mid-2024. However, this was not an MPP objective in itself as MPP was implemented in response to the accumulation of systemic risks rather than to enhance the effect of monetary policy.

Macroprudential and microprudential policies

Microprudential policy (MIP) lays the foundation for risk assessment and is aimed at ensuring long-term stability (the so-called through-the-cycle approach). Microprudential requirements are based on the results of analyses of long-term trends in the financial industry. In contrast, MPP responds to deviations from historical trends (such deviations may be transitory or become a new trend). This involves identifying systemic risks, assessing their potential implications, and developing effective solutions for limiting these risks.

The MIP objective is to ensure the sustainability of each of the financial system's participants (banks, insurance companies, pension funds, and other financial institutions). For example, the banking sector applies conservative requirements to banks' capital adequacy (including higher requirements for systemically important banks) and liquidity buffers. Capital is needed to absorb banks' losses in an adverse situation and to prevent their insolvency. Liquidity buffers are aimed at solving the problems of stress outflow of funds and/or their insufficient inflow, as well as at enabling banks to fulfil their obligations to creditors and depositors in an uninterrupted manner (to support banks' solvency).

As a result, MIP, like MPP, contributes to the mitigation of vulnerabilities. Adequate levels of provisions and capital requirements for banks help limit cyclical vulnerabilities. Credit concentration ratios help banks better spread corporate credit risks across the banking system. However, microprudential regulation cannot respond quickly to rapid changes affecting the stability of the financial system. Namely, when segments with new sources of risk emerge, behavioural patterns and interrelationships between participants change. MPP is more efficient in limiting systemic risks due to the following features:

1. Systematic approach and consideration of collective behaviour. Since MIP focuses on the resilience of individual institutions, it takes into account the interrelations between institutions, but disregards their impact on the financial system as a whole, which can lead to a domino effect during crises. Simultaneous actions of many economic agents, such as the mass sale of assets, may lead to considerable market volatility and aggravate instability.

³ Borio C. (2012). The financial cycle and macroeconomics: What have we learnt? (BIS Working Papers, No. 395). Bank for International Settlements.

- 2. Countercyclicality. MIP may increase the amplitude of business cycle fluctuations, e.g. by requiring provisioning during downturns, which may restrict lending and exacerbate the economic downturn. MPP, in contrast, responds quickly to changes in the situation. Regulators may temporarily restrict credit growth in certain risky segments, including through ensuring the accumulation of macroprudential capital buffers, during upward phases of the business or financial cycle and release them, i.e. allow banks to use them to absorb losses and maintain credit availability, during downturns (or to counter the risk of a credit crunch).
- **3. Prompt response to structural changes.** Historical data that are used to calibrate microprudential requirements (either by the regulator or by banks, including those applying the internal ratings-based approach) may underestimate future risks. For example, risks might be underestimated if the mortgage market has been small and has not experienced crisis episodes in the past. MPP ensures that banks continue to operate even if shocks of unprecedented but possible magnitude materialise. For this purpose, macroprudential capital buffers are additionally formed to be released during crises.

As a result, MPP and MIP work towards the common goal of maintaining systemic financial stability as well as the resilience of each individual bank. MIP establishes common basic standards of operations, while MPP develops regulatory requirements depending on the phase of the financial and business cycles, and responds to structural changes, as necessary. MIP and MPP work in synergy. MIP helps to make sure that financial institutions operating in the system have adequate capital and liquidity to overcome stresses. This enhances the resilience of the entire sector. Meanwhile, MPP contributes to the stability of the financial system as a whole, thus simultaneously creating a more favourable environment for each financial institution to operate in.