

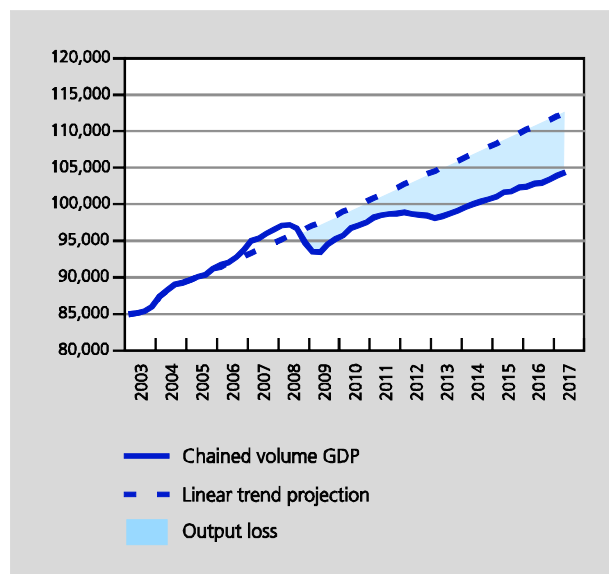
The Belgian macroprudential policy framework in the banking sector

A. What is meant by macroprudential policy?

1. The need for a macroprudential policy

In the aftermath of the global financial crisis, the regulatory framework for the financial system was radically reformed. In addition to new requirements with respect to solvency and liquidity for individual institutions aimed at improving their individual loss-absorbing capacity, a complementing, comprehensive macroprudential policy covering the entire financial system was considered a prerequisite for ensuring financial stability and avoiding the economic and social cost implied by financial crises.

Chart 1 - GDP losses in Belgium as a result of the global financial crisis
(in € million)



Source: NBB.

Notes: The pre-crisis trend (and implied projection) for GDP has been calculated using a linear trend estimate extracted from quarterly GDP data (reference year 2014) from 1995Q1 till 2004Q4, thereby excluding the possibly excessive 2005 - 2008 pre-crisis years. The estimated output loss is therefore only approximate and does not account for changes in fundamental drivers of potential GDP growth.

The crisis experience had shown that neither maintaining the financial soundness of individual institutions nor achieving price stability is sufficient to guarantee financial stability. Direct and indirect interconnections between financial and real economic actors, incomplete information on such interconnections and herding behaviour may result in downward self-reinforcing spirals that have the potential to amplify initially contained shocks into systemic banking and financial crises. For instance, the collapse of the US subprime mortgage

market in 2007 developed into a global disruption to financial stability with, up to today, serious negative consequences for the real economy.

Macroprudential policy aims at safeguarding the stability of the financial system as a whole. It notably targets the negative externalities arising from individual institutions' behaviour, as reflected in spillover effects through direct and indirect interconnections of financial institutions and the inherent pro-cyclicality of the financial system. In this context, the maintenance of financial stability implies a twofold objective for macroprudential policy. The first – cyclical – policy dimension seeks to contain the build-up of systemic vulnerabilities during upward phases of the financial cycle or when lending surges, as well as to prevent the financial system from excessively weighing on economic activity through credit crunches during the bust phase of the financial cycle. The second policy dimension aims at managing structural systemic risks stemming from vulnerabilities such as strong interconnectedness between financial intermediaries, high concentration of exposures of these institutions and the crucial role they play in significant markets, attributing them a “too-big-to-fail” status.

2. Macroprudential policy objectives and instruments

A precondition for macroprudential policies to be effective in achieving these objectives is that authorities in charge of these policies have clearly defined mandates and powers.

The mandate of safeguarding the stability of the financial system, defined in the Bank's Organic Law¹ as contributing to a “*situation where the probability of discontinuity or disruption in the financial system is low or, if such disruptions should occur, where the consequences for the economy would be limited*”, remains necessarily broad and consequently lacks direct operational value. Therefore, intermediate objectives need to be specified to operationalise this ultimate objective of macroprudential policy of maintaining financial stability.

Based on an assessment of market failures and associated negative externalities in the financial sector, the European Systemic Risk Board (ESRB) has identified in its Recommendation on intermediate objectives and instruments of macroprudential policy² four intermediate objectives pertaining to macroprudential policy in the banking sector:

- to mitigate and prevent excessive credit growth and leverage;
- to mitigate and prevent excessive maturity and liquidity transformation (maturity mismatch and market illiquidity);
- to limit direct and indirect exposure concentration; and
- to limit the systemic impact of misaligned incentives with a view to reducing moral hazard.

These intermediate objectives act as quantifiable operational specifications of the ultimate objective of macroprudential policy.

¹ Law of 22 February 1998 establishing the organic statute of the National Bank of Belgium.

² Recommendation of the European Systemic Risk Board of 4 April 2013 on intermediate objectives and instruments of macro-prudential policy.

Regarding powers, macroprudential authorities should have at their disposal the necessary information to assess systemic risk and a set of instruments that can be applied swiftly and flexibly to target identified risks. The economic basis for the selection of the appropriate types of instruments is provided by the intermediate objectives and the underlying market failures. The most prevalent instruments for the conduct of macroprudential policy in the banking sector can be grouped into three categories: capital-based instruments, liquidity-based instruments and lending limits. These macroprudential instruments, and in particular capital- and liquidity-based instruments, generally aim at strengthening the resilience of the banking system as a whole by increasing institutions' capacity to withstand institution-specific or sector-wide shocks. In addition, they may also be used to deliberately curb the upswing of the financial cycle through their effects on credit supply and/or asset prices (often referred to as "leaning against the wind").

Capital-based instruments aim at increasing financial institutions' resilience by increasing their loss-absorbing capacity. To the extent that the increased cost of funding resulting from higher capital requirements is passed on to credit markets, capital-based measures may also contribute to smoothing out the upswing in the credit cycle. General distinctions can be made between, inter alia:

- capital-based instruments targeting cyclical systemic risk (e.g. the countercyclical capital buffer) and capital-based instruments targeting structural systemic risk (e.g. capital surcharges for systemically important institutions);
- capital-based measures applying to all exposures (e.g. the countercyclical capital buffer, the capital buffer for global systemically important banks) and capital-based measures applying to a subset of exposures (e.g. to exposures secured by mortgages on immovable property); and
- capital-based instruments applying to risk-weighted assets (e.g. the countercyclical capital buffer, the capital buffer for global systemically important banks) and capital-based instruments applying to non-risk-weighted assets (e.g. a leverage ratio requirement)

As such, capital-based instruments can be applied to achieve several of the abovementioned intermediate objectives: depending on the design and scope of application of the instrument, more emphasis can be placed on one or the other intermediate objective. For instance, whereas the countercyclical capital buffer mainly targets risks related to excessive credit growth and leverage, capital surcharges for systemically important institutions mainly focuses on limiting the systemic impact of misaligned incentives with a view to reducing moral hazard. In particular, the aim of such surcharges is to reduce these institutions' probability of default given the high economic and social costs of such a default. Furthermore, capital surcharges for systemically important institutions may provide these institutions with incentives to internalise the externalities they pose to the rest of the financial system.

Liquidity-based instruments aim at increasing financial institutions' resilience to liquidity shocks. Stable funding requirements reduce their reliance on unstable short-term funding sources and therefore the risk of sudden funding outflows.³ Liquidity buffer requirements increase the ability to cope with such outflows should they nonetheless occur. Like capital-based instruments, liquidity-based instruments may differ in their design and scope of application, ranging from time-varying add-ons to minimum requirements, to stricter requirements for

³ As an alternative to quantity based requirements, the reliance may also be reduced through imposing price-based instruments (e.g. a levy on wholesale funding).

systemically important financial institutions. Liquidity-based instruments mainly contribute to achieving the second intermediate objective with regard to excessive maturity and liquidity transformation, but may also affect credit allocation. More specifically, they may result in institutions shifting their portfolios from illiquid (e.g. long-term loans to the private sector) to liquid asset holdings, and have a limiting effect on excessive credit growth fuelled by less stable funding sources. When stricter requirements are applied to systemically important institutions, they also contribute to limiting the systemic impact of misaligned incentives with a view to reducing moral hazard in ways similar to capital surcharges targeting these institutions.

Lending limits generally aim at increasing borrowers' resilience by limiting the build-up of leverage and therefore, lowering their probability of default. They may also contribute to enhancing institutions' resilience by lowering the loss-given counterparty default and, explicitly or implicitly, constraining exposure concentration. These measures may also directly affect the credit cycle and the build-up of leverage by imposing direct restrictions on credit quantities. A first type of instrument in this group limits the amount of credit in relation to the value of the underlying collateral. For instance, loan-to-value (LTV) caps on housing loans restrict the size of the loan in relation to the value of the underlying real estate collateral. Margin and haircut requirements entail a similar transmission mechanism in the context of securities financing (e.g. repurchase agreements) and derivatives transactions. A second type of instrument in this category limits the amount of credit in relation to the borrower's income, such as loan-to-income (LTI) and debt (service)-to-income (D(S)TI) caps applied to mortgage loans. Rather than ensuring sufficient collateral value to cover counterparty losses, such measures more directly aim at maintaining borrowers' debt servicing capacity and consequently reducing default rates. Thirdly, as opposed to the first two types of lending limits, which are targeted at borrowers, large exposure restrictions are lending limits targeted at institutions. Such restrictions imply that the exposure to an individual or a group of counterparties may not exceed a certain threshold, for instance expressed as a percentage of the institution's own funds. As apparent from the above discussion, lending limits may contribute to achieving multiple intermediate objectives, including the mitigation and prevention of excessive credit growth and leverage, and the limitation of direct and indirect exposure concentration.

It should be noted that while at present, prudential regulations across the globe, and in particular in Europe, mainly provide instruments targeting cyclical and structural systemic risk in the banking sector, the more comprehensive macroprudential framework is under development. In particular, international initiatives have been launched to extend macroprudential policy beyond the banking sector.

B. Who is responsible for macroprudential policy in the banking sector in Belgium?

1. Institutional framework for macroprudential policy in the banking sector in Belgium

Financial supervision in Belgium is organised according to a “twin peaks” model, where the National Bank of Belgium (“the Bank”) is in charge of prudential supervision and the Financial Services and Markets Authority (FSMA) is responsible for overseeing the operation of the securities markets and compliance with the code of conduct, and for consumer protection. For the banking sector, the Bank’s microprudential supervisory responsibilities are constrained by the responsibilities given to the European Central Bank (ECB) in the Single Supervisory Mechanism (SSM): since November 2014, the ECB directly supervises “significant institutions” of participating countries, whereas “less significant” institutions continue to be directly supervised by their national supervisors (under the oversight of the ECB).⁴

While contributing to financial stability had been included in the Bank’s Organic Law as one of the Bank’s responsibilities long before 2011, its mandate was substantially extended with the introduction of the “twin peaks” model in 2011. In particular, the macroprudential and microprudential dimensions of financial supervision were included and special powers in relation to systemic institutions were assigned to the Bank. A further extension of the Bank’s macroprudential powers was provided by the macroprudential law⁵ and the new Belgian Banking Law⁶ in 2014, which designated the Bank as the macroprudential authority in Belgium. This mandate was incorporated in the Bank’s Organic Law as an element of its mission of contributing to financial stability, introducing formal arrangements for performing the Bank’s financial stability mission and giving the Bank specific means of action. In particular, the Bank was made responsible for the detection, monitoring and follow-up of the emergence and build-up of systemic risks, including taking policy action when deemed appropriate. The macroprudential instruments under direct control of the Bank (see below) are legally enforced by Regulations laid down by the Bank, which come into force only after being enacted by Royal Decree and published in the Belgian Official Gazette.⁷

The Bank exercises its macroprudential mandate within the broader context of the SSM and the European System of Financial Supervision (ESFS). Macroprudential policy is not meant to be conducted exclusively at the national level, as in an integrated financial system such as that in the euro area, a national crisis can quickly spread across borders, thereby affecting the countries in the area. Moreover, at overall EU level, coordination is needed to avoid uncoordinated implementation of national macroprudential measures jeopardising the functioning of the single European market.

⁴ For the list of “significant institutions” directly supervised by the ECB, see <https://www.bankingsupervision.europa.eu/banking/list/who/html/index.en.html>.

⁵ Law of 25 April 2014 establishing the mechanisms for a macroprudential policy and for determining the specific tasks of the National Bank of Belgium in the context of her mission to contribute to the stability of the financial sector.

⁶ Law of 25 April 2014 on the legal status and supervision of credit institutions and stockbroking firms.

⁷ Article 12*bis* of the Bank’s Organic Law.

More specifically, the Bank fulfils part of its macroprudential responsibility in the banking sector jointly with the ECB, as macroprudential instruments may also be activated by the latter.⁸ However, the ECB's power with regard to macroprudential policy under the SSM is more restricted than the competences of national authorities. First, it is limited to instruments foreseen in the CRD IV and CRR⁹ (see below). Second, this responsibility is asymmetric, as the ECB may only apply more stringent requirements. This arrangement reflects the fact that national cycles are not always synchronised in the monetary union and that the costs of financial instability remain primarily national in the absence of a completed banking (and/or fiscal) union. Such asymmetric arrangement thus combines the need to keep a degree of national independence in the implementation of macroprudential policy while providing the ECB with a lever to counter policy inaction (inaction bias) on the part of national authorities. This shared macroprudential responsibility entails a substantial degree of coordination and informal interactions between the Bank and the ECB, which go beyond the official notification obligations foreseen in the SSM Regulation.

At EU level, the ESRB is the authority in the ESFS that is responsible for macroprudential supervision and the coordination of macroprudential policy in Europe. By means of warnings and recommendations to Member States and/or designated authorities, the ESRB contributes to safeguarding the stability of the financial system in the EU. In addition, the ESRB plays a key coordinating role for macroprudential policies, for instance by drawing up guidelines, recommendations or opinions on the use of specific macroprudential instruments and on the recognition of macroprudential measures in other Member States or third countries. The Bank is responsible for the follow-up of the recommendations made by the ESRB concerning potential risks for financial stability as well as on the macroprudential instruments it has under its control. Furthermore, the Bank is required to inform the ESRB on any macroprudential measure it intends to take and/or has taken.

⁸ Article 5 of Council Regulation (EU) No 1024/2013 of 15 October 2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions.

⁹ 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 ("CRD IV") and 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 ("CRR").

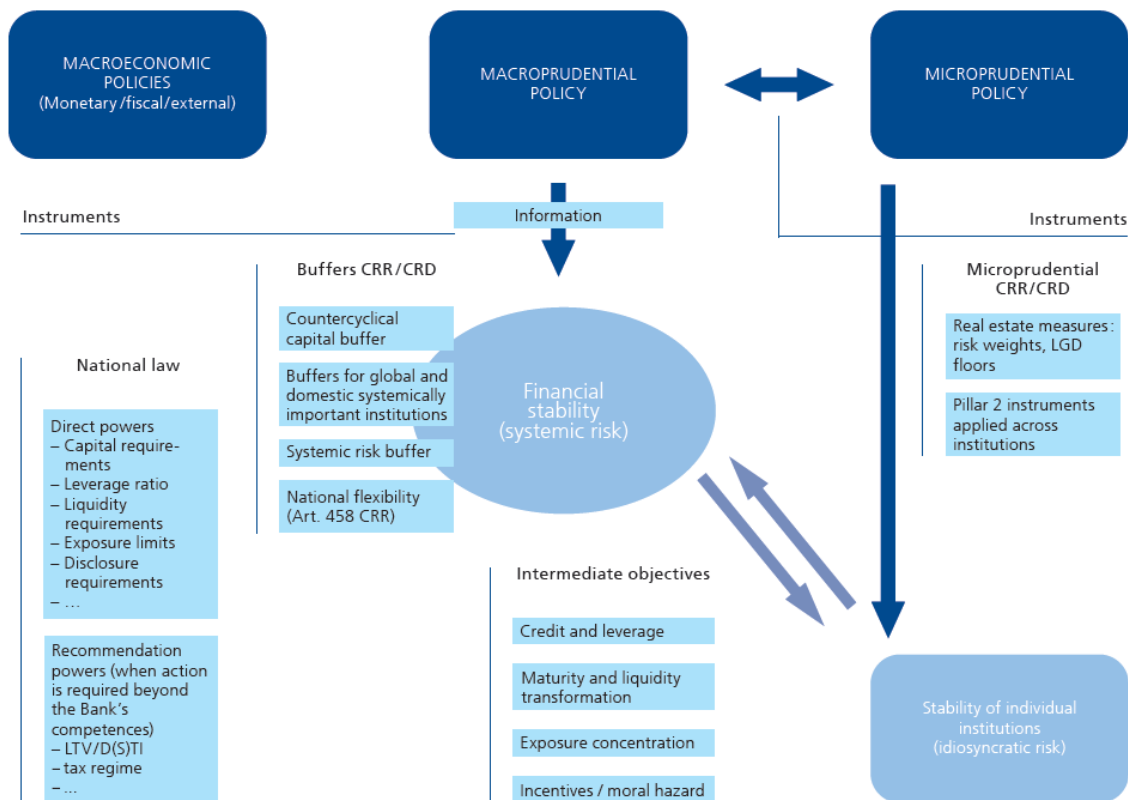
2. The Bank's macroprudential powers in the banking sector

The Bank's macroprudential powers are explicitly provided by law and relate to access to confidential information both inside and outside its supervisory perimeter, as well as to a range of instruments that may be applied in the event of emergence of systemic risks.

First, as systemic risk stems from (endogenous) interactions between financial institutions, markets, infrastructures and the wider economy, the Bank needs to be able to identify and monitor a wide range of potential threats to financial stability. Consequently, an important task for the Bank as a macroprudential supervisor is to identify information needs as well as to identify and close data gaps regarding potential systemic risk channels. While for the detection, assessment and follow-up of such threats to financial stability, the Bank can rely on supervisory data and any other relevant in-house data available, the Bank's Organic Law also provides for the possibility to request from any private sector entity in Belgium any information that is relevant to fulfil its macroprudential mandate, including entities that are outside its supervisory scope, such as shadow-banking institutions.¹⁰ This information may be requested directly from the relevant entities if the prudential authority responsible for supervising these entities does not have the required information.

¹⁰ Article 36/33 of the Bank's Organic Law.

Chart 2 - The Bank's macroprudential powers in the banking sector



Source: NBB.

Notes: LTV: loan-to-value, D(S)TI: debt (service) to income, LGD: loss-given default, CRR/CRD: capital requirements regulation/directive.

Second, as the designated authority for macroprudential instruments for which the prudential rules for the EU banking system (CRD IV and CRR) require such a designation, the Bank has under its direct control a number of macroprudential instruments. These instruments are mainly targeted towards the banking sector and should allow for sufficient flexibility in a context of national specificities with respect to banking sector structure as well as national credit and financial cycles. At the same time detailed procedures and restrictions in CRD IV, which has been transposed in the Belgian Banking Law, and CRR ensure that those tools are applied in a transparent and consistent way and maintain the proper functioning of the Internal Market.

A periodic macroprudential decision to be taken by the Bank as the designated authority concerns the quarterly setting of the countercyclical capital buffer rate applicable to credit exposures in Belgium. The countercyclical capital buffer is a capital-based macroprudential instrument designed to mitigate cyclical systemic risks and to counter pro-cyclicality in the extension of credit. Its objective is to support the sustainable provision of credit through the cycle by strengthening the resilience of credit institutions. In particular, capital buffers will be imposed whenever there is an increase in cyclical systemic risks (e.g. when credit growth is excessive), so that these additional requirements can be relaxed when the cycle turns and the risks start to decline. If systemic risks emerge – in a situation of financial stress for instance – a decision can be taken to immediately release the buffer in order to give the banks some extra breathing space for

absorbing losses while keeping up their level of lending. The countercyclical buffer rate, expressed as a percentage of banks' risk-weighted assets, shall generally be between 0 and 2.5% (varying with steps of 0.25% points), but can be set higher when justified by the underlying risk.¹¹

The Bank also determines at an annual frequency the list of domestic systemically important banks (in European prudential regulation referred to as "Other Systemically Important Institutions" or "O-SIIs"), on which she may impose additional capital buffers. This capital-based instrument is designed for mitigating systemic risks stemming from domestic systemically important banks, whose failure could have a significant impact on the (domestic) financial system or on the real economy. EU prudential regulation enables authorities to impose additional capital charges, up to 2% of risk-weighted assets, on these institutions to increase their resilience.¹²

Other instruments available to the Bank in its capacity as designated authority include the global systemically important institutions (G-SII) buffer, the systemic risk buffer and instruments foreseen in the so-called "flexibility package" of Article 458 of the CRR. As opposed to the O-SII buffer, the G-SII buffer is a capital buffer, of between 1% and 3.5% of risk-weighted assets, for banks identified as being of global systemic importance.¹³ The systemic risk buffer is a capital-based instrument specifically designed to deal with long-term non-cyclical risks. Up to a level of 3% of risk-weighted assets, the systemic risk buffer provides a substantial degree of flexibility in setting higher capital requirements for the entire banking sector or a sub-set of institutions, with the aim of covering a broad set of structural systemic risks stemming from the size, structure and/or activities of the domestic banking sector (e.g. common exposures to particular macro risks, intra-financial system interconnectedness). Above this level, procedures of which the modalities depend on the level of the systemic risk buffer and the geographic exposures to which it applies may limit the discretion in applying the systemic risk buffer (e.g. imposing an SRB above 5% of risk-weighted assets will require authorisation by the European Commission). The application of the systemic risk buffer requires a justification of why none of the existing instruments in the CRD IV and CRR, excluding Articles 458-459 of the CRR, alone or in combination, will be sufficient to address the systemic risk.¹⁴

Even stricter procedures apply to the application of the instruments available in the flexibility package of Article 458 of the CRR. These instruments include, in addition to stricter requirements on the level of own funds and the capital conservation buffer¹⁵: requirements for large exposures, public disclosure and liquidity which are stricter than the microprudential ones specified in the CRR, increased risk weights for targeting asset bubbles in the residential and commercial property sector and measures targeting intra-financial sector exposures. Hence, the flexibility package in the CRR provides the Bank¹⁶ with instruments other than capital (liquidity, large exposure limits) as well as more targeted capital-based instruments to mitigate vulnerabilities that are building up at a sectoral rather than economy-wide level. However, the scope of application of the latter is

¹¹ Article 3-10 of Annex IV of the Belgian Banking Law. For more details on the countercyclical capital buffer and the Bank's strategy for operating this instrument, see "Setting the countercyclical buffer rate in Belgium: A policy strategy" (www.nbb.be).

¹² Article 14 of Annex IV of the Belgian Banking Law. For more details on the Bank's approach to identifying O-SIIs and setting O-SII buffers, see the Bank's "Annual disclosure regarding the designation of and capital surcharges on Belgian O-SIIs" (www.nbb.be).

¹³ Article 13 of Annex IV of the Belgian Banking Law.

¹⁴ Article 16-22 of Annex IV of the Belgian Banking Law.

¹⁵ The capital conservation buffer is a capital buffer of 2.5% of risk-weighted assets on top of minimum capital requirements.

¹⁶ Article 97 of the Belgian Banking Law.

explicitly limited to risks stemming from the real estate sector and from intra-financial sector exposures. In addition, the application of Article 458 of the CRR is subject to a heavy procedure involving the ESRB, the European Banking Authority, the European Commission and the European Council.¹⁷ Furthermore, the application of instruments of the flexibility package is temporary in nature, with an initial period of two years. The instruments under Article 458 of the CRR are considered to be exceptional measures of last resort, requiring a justification of why any of the other macroprudential provisions in the CRD IV and CRR cannot adequately address the systemic risk. This is also reflected in the national procedure, which requires that the Royal Decrees enacting the Bank's Regulations issued on the basis of Article 458 of the CRR should be deliberated on in the Council of Ministers.¹⁸

CRD IV and the CRR also provide for the use of certain instruments under the control of microprudential supervisors, for financial stability purposes. In particular, stricter risk weight rules for banks' residential and commercial real estate exposures and additional Pillar 2 measures for institutions with similar risk profiles can be imposed. The activation of such instruments requires coordination between micro- and macroprudential authorities. The powers of the Bank in this respect are twofold. First, as spelled out below, the Bank may issue recommendations to the ECB/SSM for the application of these instruments to significant institutions directly supervised by the ECB. Second, in its capacity as competent authority responsible for banking supervision, the Bank has direct powers to apply these instruments to less significant institutions under its supervision.

The Bank's Organic Law provides the legal base for further macroprudential instruments under direct control of the Bank. In addition to capital and liquidity requirements, macroprudential powers are assigned to the Bank with respect to exposure limits, leverage ratio requirements, conditions for the assessment of collateral, limits on profit distribution, asset valuation rules, disclosure requirements, and minimum funding requirements.¹⁹ To the extent that they remain outside the scope of the harmonised rules in the CRD IV and CRR, these instruments can be applied in a flexible manner by the Bank.

Third, the Bank's Organic Law provides the Bank with the authority to address recommendations to relevant authorities when actions required to maintain financial stability are beyond its competences.²⁰ In the event of non-compliance with recommendations, the targeted authority will have to state the reasons for this non-compliance. Recommendations might be related to specific measures, such as lending limits in the form of caps on LTVs or D(S)TIs, if some specific risks emerge for instance in the real estate sector. These instruments are part of the responsibilities of the federal government, given their impact on other economic or social policies.²¹ More generally, the Bank's macroprudential recommendations may also concern changes in tax regime, the introduction of a legal framework for additional regulatory requirements and proposals to adapt or enlarge the regulatory perimeter to currently unregulated entities. The Bank may also address recommendations to the European authorities, such as the ECB/SSM, when the instrument to be used is under these authorities' competence.

¹⁷ Large exposure restrictions tightened by up to 15% and an increase of risk weights by up to 25% compared to the microprudential requirements are subject to a lighter procedure.

¹⁸ Article 97 of the Belgian Banking Law.

¹⁹ Article 36/34 of the Bank's Organic Law.

²⁰ Article 36/35-37 of the Bank's Organic Law.

²¹ Article 36/38 of the Bank's Organic Law.

As mentioned before, the macroprudential framework in general and the EU legal macroprudential framework in particular are still under development. Furthermore, systemic risk is not limited to the banking sector, but stems from (endogenous) interactions between financial institutions, markets, infrastructures and the wider economy. This multi-faceted and constantly evolving nature of systemic risk requires macroprudential policymakers to remain vigilant for newly arising sources of systemic risk and to adapt their macroprudential toolkit accordingly.

C. What is the Bank's approach to macroprudential policy?

1. The Bank's general principles regarding macroprudential policy

While striving for transparency towards and consultation of the relevant stakeholders, the Bank's decisions and actions in the context of its macroprudential mandate are taken independently from political concerns or the financial industry. Macroprudential decisions and actions are taken in line with a public mandate and in the public interest, based on a careful consideration of both their benefits and costs and solely aimed at safeguarding financial stability.

As systemic risk is a multi-faceted concept, the Bank's macroprudential risk assessment framework covers a broad range of threats to the stability of the financial system, pertaining to all segments of the financial sector. Given the challenges inherent in and limitations of quantitative systemic risk assessment, there is a key role for expert judgement at every stage of the macroprudential decision process. That is, there is no automatic mapping between any quantitative information or indicators considered for systemic risk assessment and the (de)activation of macroprudential policy measures. Before taking a particular decision or action, the Bank will aim at conducting an ex ante assessment of benefits and costs of several relevant policy options. In its selection of the preferred policy option, the Bank will take into account both the effectiveness and efficiency of the available options, while giving due consideration to both macroprudential and microprudential (e.g. capital requirements under Pillar 2) policy measures already in place. In particular, when considering the application of macroprudential measures, the Bank will account for the impact of policy actions that have already been taken, so as to avoid double counting of identified risks.

Furthermore, the transmission of macroprudential policy instruments will always be surrounded by a degree of uncertainty. The Bank therefore considers it advisable for macroprudential policy instruments to be implemented gradually and with caution. The Bank aims at making a significant contribution to safeguarding the stability of the Belgian financial system first and foremost by ensuring market actors' resilience, which the Bank considers a prerequisite for financial stability. The Bank's macroprudential policy neither aims at fine-tuning financial or business cycles, nor at fully eliminating financial risks or alleviating isolated problems in individual institutions.

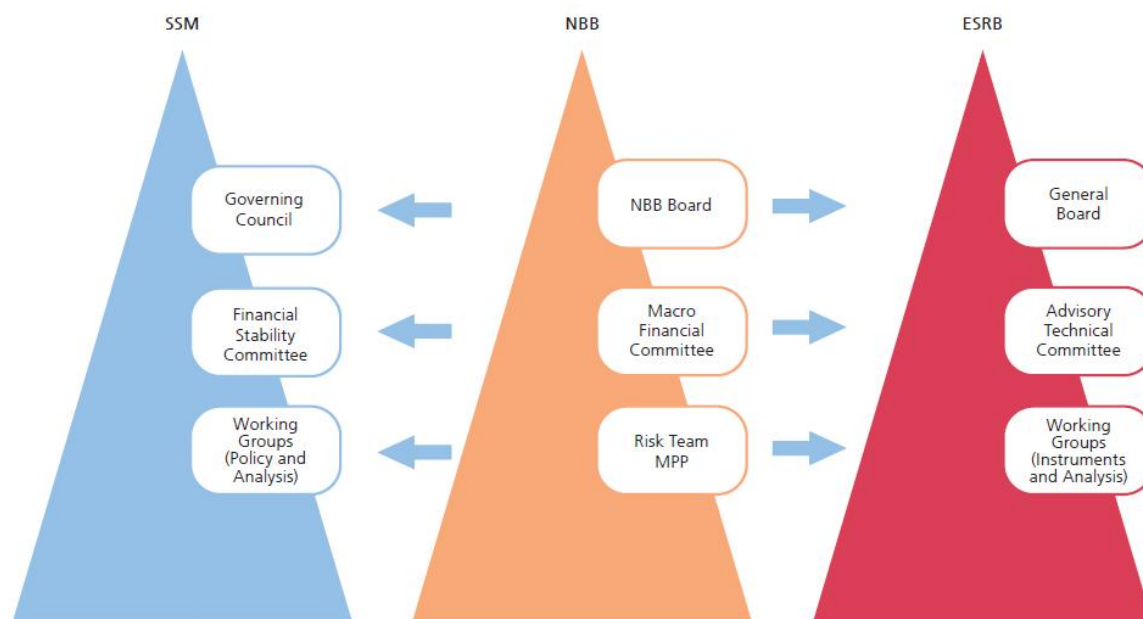
The Bank also gives due consideration to the cross-border aspects of macroprudential policy. As mentioned above, the Bank exercises its macroprudential mandate within the broader context of the ESFS and the SSM. In this context, the Bank subscribes to coordination and collaboration with both the ECB and the ESRB. Furthermore, the Belgian financial sector is characterised by the presence of big international players and has considerable investments in European emerging economies. Coordination with home and host authorities regarding macroprudential issues, in particular on risks related to intra-group exposures between parent institutions and their subsidiaries, is therefore deemed essential. The Bank furthermore supports efforts to maintain the international level playing field through the application of the reciprocity principle.

2. The Bank's framework for macroprudential decision making

2.1 The Bank's organisational structure for macroprudential policy making

To ensure adequate preparation of the risk assessment and to underpin decisions on potential policy actions, including the selection and calibration of macroprudential instruments in the event of an occurrence of threats to financial stability, the Bank has developed a specific in-house organisational framework. This framework relies on different internal structures, which bring together all the relevant departments of the Bank at each of the different stages of the assessment and decision process. The cross-departmental composition of these internal structures ensures that risk analyses and assessments are widely discussed and that diverging views are taken into account, in view of the complexity of systemic risks.

Chart 3 - Internal organisation of macroprudential policy in the Bank, the SSM and the ESRB



Sources: ECB, NBB.

In particular, under the aegis of the Bank's Board, which has the ultimate power to decide on macroprudential policy, two structures have been set up. The first structure is the Macro-Financial Committee (MFC), which is composed of the heads of the relevant departments and is responsible for preparing the meetings of the Bank's Board acting as macroprudential authority. The MFC discusses the risk assessment from a policy perspective and recommends policy actions if these are deemed necessary. It also acts as the secretariat of the Bank's Board in its capacity of macroprudential authority and submits to the Board drafts for the public communication on macroprudential decisions. The second structure is the Risk Team Macroprudential Policy (RT MPP), in which all the relevant departments of the Bank are represented at the technical level. The RT MPP prepares the materials that serve as a background for the MFC meetings, consisting of the risk

assessment – focused on identifying potential systemic risks – and an assessment of the potential macroprudential measures that could be implemented to address it, as well as their calibration.

The organisational structure was designed at the Bank to give maximum effect to the synergy between the traditional tasks of a central bank and the different prudential responsibilities. The structure is based on the “four-eyes” principle, combining a vertical and a horizontal approach, whereby the analysis of individual financial institutions and infrastructures is checked against a systematic examination of micro- and macroprudential risk categories.

The coordination of the Bank with both the ESRB and the SSM in the conduct of macroprudential policy is facilitated by the fact that the institutional frameworks governing macroprudential decision-making are similar in the three institutions. At the higher level, the Banks’ Board of Directors acting as the macroprudential authority interacts with the Governing Council of the ECB for the SSM, and with the General Board of the ESRB. At a lower coordinating level, the MFC of the Bank has its counterpart in the framework developed at both SSM and ESRB level, embodied respectively in the Financial Stability Committee (FSC) and the Advisory Technical Committee (ATC). This link also exists at a more technical level, with the substructures of the FSC (Macroprudential Analysis Group and Macroprudential Policy Group) and the corresponding substructures of the ATC (Analysis Working Group and Instruments Working Group) being reflected in the RT MPP of the Bank.

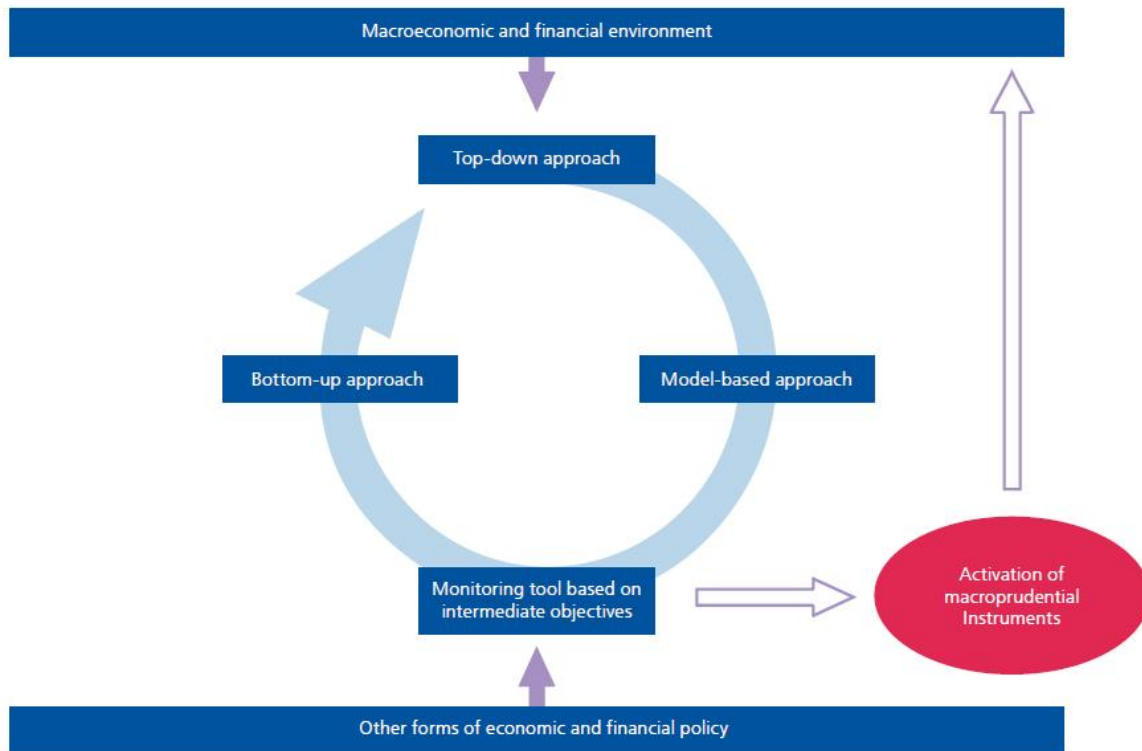
2.2 The Bank’ macroprudential risk assessment framework

Effective macroprudential policy is not feasible without regular and comprehensive analyses of potential risks for the stability of the financial system, and related vulnerabilities in systemically important financial institutions or in the sector at large. The Bank’s macroprudential risk analyses are performed twice per year and combine information obtained from three pillars, which consist of a top-down approach, a bottom-up approach, and a model-based identification of the potential threats to the financial stability in the Belgian financial sector. The Bank continues developing its analytical frameworks and toolkit, also in anticipation of the possible extension of macroprudential policy to the non-bank sphere.

The top-down approach determines the potential risks, stemming from both national and international factors, for the sustainability and viability of Belgian banks, insurance companies and financial market infrastructures, and the associated consequences for financial stability. It includes an assessment of the impact of general economic and financial developments on financial institutions’ profit and loss accounts, balance sheets or liquidity profile. The analyses of general economic and financial developments rely on a broad range of economic parameters such as the economic growth, macroeconomic imbalances, interest rate levels, credit growth, the financial position of households and businesses, growth in house prices, etc.

The bottom-up approach aims at highlighting the main points of attention in the ongoing risk analyses in the departments of the Bank responsible for the microprudential supervision of Belgian banks, insurance companies and financial market infrastructures. Such attention points result from the analysis of developments specific to various institutions on an individual basis or of sector-specific challenges, and may or may not be connected with changes in the macrofinancial risk parameters. Relevant information resulting from market intelligence is also part of the bottom-up approach.

Chart 4 - Analysis of macroprudential risks at the Bank



Source: NBB.

The third pillar consists of a model-based approach, intended to detect potential threats to the stability of the Belgian financial sector. The model-based framework consists of an overview of the Belgian financial cycle, covering information on the basis of a series of indicators relating to credit developments, the banking sector, the level of debt in the economy, the property market and current developments in the financial markets. This overview is complemented by an early warning framework for the detection of any build-up of vulnerabilities, stemming from for example non-financial private sector credit and leverage, developments in the real estate and banking sector, and other macro-financial trends. Signalling thresholds for early warning indicators and models are calibrated on the basis of the occurrence of banking crises in the past, using a range of statistical techniques. These thresholds determine the intensity of the risk signals issued by the indicators and models for a specific prediction horizon.

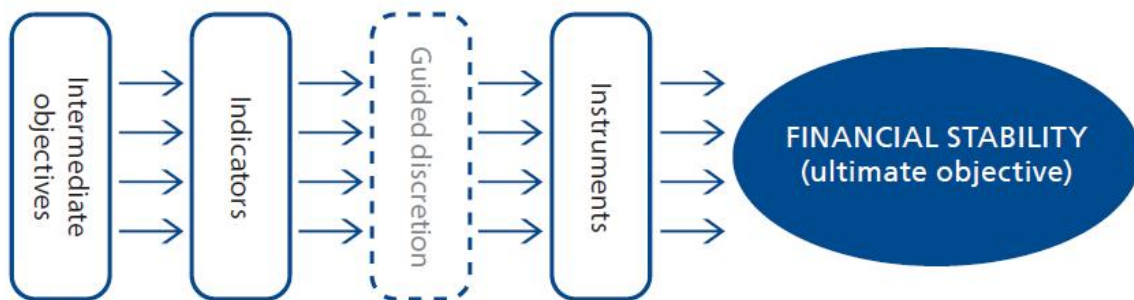
This macroprudential risk analysis forms the basis for defining areas of potential risk that require more detailed analysis, and for deciding on the potential activation of macroprudential instruments. The expected or actual effects of such measures taken previously are incorporated in subsequent risk analyses.

2.3 The role of intermediate objectives in the Bank’s macroprudential decision making

As mentioned above, the ESRB has identified intermediate objectives to operationalise the broad ultimate objective of contributing to financial stability. Such operationalization entails a mapping of intermediate objectives into a set of quantifiable metrics or indicators that aim at capturing systemic risk developments.

The abovementioned top-down and model-based approaches in the Bank’s macroprudential risk assessment framework contain a wide range of indicators covering a diversity of risks. Within this framework, the Bank has developed a monitoring tool that groups a set of key indicators along the ESRB’s four intermediate objectives pertaining to the banking sector. This monitoring tool aims at strengthening the link between the wide range of information used in the Bank’s risk assessment framework and the macroprudential policy options available to the Bank.

Chart 5 - The operationalization of macroprudential policy



Source: ESRB.

Box 1: The Bank's monitoring tool based on intermediate objectives

The monitoring tool based on intermediate objectives groups a set of key indicators along the ESRB's four intermediate objectives pertaining to the banking sector. The indicators cover the build-up of risk in financial institutions (banking sector, insurance sector, non-bank non-insurance financial entities), the non-financial private sector (households and non-financial corporations), financial markets and the real estate market.

Each intermediate objective also contains a number of indicators that may signal the materialisation of risks and the potential need for releasing macroprudential policy measures. These indicators are to a large extent the same for the different intermediate objectives and include indicators signalling the materialisation of credit losses, liquidity and interest rate risk, and financial market indicators.

To mitigate and prevent excessive credit growth and leverage

Excessive credit growth has been identified as a key driver of financial crises. Risk illusion and endogenous risk-taking in buoyant times lead to excessive credit provision, deteriorating credit standards, potential bubbles in asset markets, the build-up of leverage within the financial system and rising indebtedness of real economy borrowers. Such developments render the financial system more vulnerable to shocks, with the unravelling of imbalances entailing credit crunch externalities.

The indicators under this first intermediate objective aim at capturing several dimensions of these risks: the credit cycle, the leverage position of the non-financial private sector, leverage in the financial sector, financial and asset (including real estate) market imbalances and external imbalances.

To mitigate and prevent excessive maturity and liquidity transformation (maturity mismatch and market illiquidity)

Experience shows that credit cycles coincide with increased reliance on short-term funding. Excessive liquidity transformation poses risks to financial stability through downward liquidity spirals characterised by fire sale externalities and contagion due to the dry-up of liquidity. Maturity transformation is an important determinant of liquidity transformation and in addition may increase sensitivity to interest rate risk.

The focus of the indicators operationalising this intermediate objective is therefore on asset liquidity, funding stability and maturity transformation in the financial sector.

To limit direct and indirect exposure concentration

Direct concentration risk arises from large exposures to the non-financial sector (e.g. the housing market, sovereigns) as well as from exposures between financial entities. Such concentration, both on the asset and liability side, renders the financial system more sensitive to common shocks. In addition, indirect exposures arise within the system owing to the interconnectedness of financial institutions and the contagious consequences of common exposures through asset fire sales.

The indicators under the third intermediate objective cover indicators measuring financial institutions' asset concentration, income concentration and funding concentration. Furthermore, the degree of commonality

across financial institutions along these dimensions is assessed. Finally, also indicators capturing the degree of intra-financial system interconnectedness are included.

To limit the systemic impact of misaligned incentives with a view to reducing moral hazard

Parts of the financial system may be considered too big to fail because of their importance to the real economy and/or the rest of the financial system. The presence of public safety nets may lead to moral hazard problems, entailing excessive risk taking. While not strictly related to moral hazard, banks' remuneration policies as well as shareholder and market pressures may affect bank managers' incentives and give rise to excessive search for yield behaviour.

Indicators capturing moral hazard / too big to fail include measures of financial sub-sectors' importance to the real economy and their importance to the rest of the financial system, whereas search for yield indicators relate to credit standards, financial institutions' profitability and the riskiness of their asset holdings

In particular, the monitoring tool guides the choice of appropriate policy options in response to identified risks. The selection of the appropriate instrument requires linking instruments and their expected transmission mechanism to the underlying risks and to the objectives of macroprudential policy. The table below provides an overview of the key instruments at the Bank's disposal and links them to the ESRB intermediate objectives. It should be noted that the table only lists the main intermediate objective targeted by a particular instrument. The application of instruments may nevertheless also (indirectly) affect other intermediate objectives. A number of the instruments (e.g. sectorial capital requirements, systemic risk buffer) can in fact be used to target multiple intermediate objectives.

Table 1 - Intermediate objectives and the Bank's macroprudential instruments in the banking sector

Intermediate objective	Category	Instruments
To mitigate and prevent excessive credit growth and leverage	Capital-based	Countercyclical capital buffer, sectoral capital requirements (real estate, intra-financial sector), systemic risk buffer, leverage ratio
	Lending limits	Recommendation on loan-to-value or debt (service)-to-income limit, large exposure restrictions
To mitigate and prevent excessive maturity and liquidity transformation	Liquidity-based	Net stable funding ratio, liquidity coverage ratio
To limit direct and indirect exposure concentration	Capital-based	Sectoral capital requirements (real estate, intra-financial sector), systemic risk buffer, leverage ratio
	Lending limits	Recommendation on loan-to-value or debt (service)-to-income limit, large exposure restrictions
To limit the systemic impact of misaligned incentives with a view to reducing moral hazard	Capital-based	Capital buffers for global/other systemically institutions, systemic risk buffer, leverage ratio
	Liquidity-based	Net stable funding ratio, liquidity coverage ratio

Source: NBB.

Notes: The table only lists the Banks' most important instruments in the different categories.

3. The Bank's communication on systemic risk and macroprudential policy

The Bank's communication on systemic risk and macroprudential policy aims at achieving several objectives: to improve market participants' and the general public's knowledge about issues concerning financial stability and systemic risks, to make macroprudential policy decisions more predictable and manage market participants' expectations, to enhance market participants' and the general public's understanding of the rationale and intended effects of macroprudential policy actions, to enhance international coordination of macroprudential policies, to facilitate market participants' compliance with both national and international macroprudential policies, and to ensure accountability.

The Bank's communication strategy on systemic risk and macroprudential policy contains a number of periodic communications. The Bank's annual Financial Stability Report (FSR) provides an overview of financial stability developments in the Belgian financial sector. In addition, the FSR contains the Bank's Macroprudential Report (MPR), which provides a focused discussion of the main risks to financial stability, an overview (including rationale and design) of the Bank's macroprudential policy decisions, actions and recommendations, as well as of the Bank's main activities in developing the macroprudential framework. The main messages of the Bank's FSR are also included in the Bank's Annual Report. The main macroprudential risks and decisions are further highlighted during the press conferences held at the occasion of the publication of these reports.

As required by the Belgian Banking Law, the Bank also periodically communicates on its website and by means of press releases on the quarterly setting of the countercyclical capital buffer rate applicable to credit exposures in Belgium, and the annual preparation of the list of domestic systemically important banks.

Separate and more detailed policy and communication strategies have been developed for these recurrent macroprudential policy decisions.²²

In addition, the Bank may decide to communicate on an ad hoc basis, on its website and by means of press releases and other types of publications, on prevailing threats to financial stability or macroprudential decisions.

In both its periodic and ad hoc communications, the Bank aims at delivering succinct but clear messages regarding identified threats to financial stability as well as in its narrative justifying the macroprudential decisions. While drawing on a wide set of data and indicators for its risk assessment and macroprudential decisions, the Bank's macroprudential communications will strive for transparency and clarity by building its narrative on a limited number of key indicators deemed relevant for the systemic risk and/or macroprudential instrument in question. The Bank will concede on the principle of transparency only if disclosure of the risk assessment or the macroprudential decision by its content or the circumstances would entail additional risks to financial stability or if sharing particular information would be against the law.

Specifically regarding communication on (intended) macroprudential policy actions, the Bank aims at holding consultations with market participants and relevant authorities. Such consultations help informing market participants as potential addressees of macroprudential decisions about the background and modalities of the proposed policy measure. The exchange of information furthermore allows the Bank to make more informed decisions. In addition to the formal notification requirements in prudential legislation, informal interactions with the relevant authorities, including the ECB and the ESRB, also lead to more informed decision making and allow to enhance the international coordination of macroprudential policies.

With regard to the latter, the Bank's website also contains a dedicated section on reciprocity of macroprudential measures. The section contains information on the Belgian reciprocity framework²³, announcements of the Bank's decisions to recognise macroprudential measures adopted by other countries, and information for market participants on countercyclical buffer rates applicable in other countries.

Finally, adequate accountability arrangements have been set out in the Bank's Organic Law, requiring the Bank to report to Parliament on its mission of contributing to financial stability.²⁴ To meet that requirement, the Bank transmits to Parliament its Annual Report as well as the MPR, the latter of which has been created explicitly for this purpose. The Governor might also be auditioned at the request of the Parliament or on his own initiative. In addition, to enhance transparency and accountability, recommendations made by the Bank are made public, except, as mentioned, in cases where they might create potential risks for financial stability.

²² See "Setting the countercyclical buffer rate in Belgium: A policy strategy" and the Bank's "Annual disclosure regarding the designation of and capital surcharges on Belgian O-SIIs" (www.nbb.be).

²³ See "Reciprocity of macroprudential measures: general framework and application in Belgium" (www.nbb.be).

²⁴ Article 28 of the Bank's Organic Law.