B. Macroprudential policy

The purpose of the Bank's activities in performing its macroprudential mandate is to safeguard overall financial stability. The Bank fulfils part of that responsibility jointly with the ECB, which was given a number of powers concerning macroprudential policy under the SSM.

During the year under review the Bank monitored the risks in the financial system and took steps to address the vulnerabilities found. The Bank's macroprudential risk assessments cover a wide range of potential current and future threats to financial stability. Those analyses are therefore not confined to the banking sector but focus on any vulnerabilities in the Belgian financial system as a whole.

For instance, the Bank conducts periodic analyses of the use of derivatives in the Belgian financial sector and the associated risks. In May 2018, the Bank published its first extensive study of the use of derivatives by Belgian financial institutions. The report first describes the changes to the regulatory framework for banks and insurance companies since the crisis in regard to derivatives, and then analyses the trends in Belgian banks' and insurers' derivatives business. Finally, it sets out a series of points for attention concerning the policies to be adopted. Assessment of the risks relating to derivatives operations is challenging and requires detailed data on the transactions and positions of the various market players. The reporting obligations imposed by the European Regulation on over-the-counter derivatives, central counterparties and trade repositories (European Market Infrastructure Regulation or EMIR) provide for such granular data[1]*, but analysing the data is difficult because of the large volume and the hitherto poor quality of the data reported. During the year under review, the Bank invested significant resources in developing an IT platform for the analysis and quality control of these EMIR data. That platform will become operational during 2019.*

In October, as part of the periodic monitoring of asset management activities and the shadow banking sector in Belgium, the Bank and the FSMA published the first update of their original 2017 report. As things stand at present, no significant threat to financial stability was identified in regard to asset management and non-bank financial intermediation. However, developments concerning these two activities and their links with other sectors of the economy need to be kept under close watch. In that connection, the FSMA and the Bank will continue their efforts to improve the availability of data on these activities.

As every year, the Bank also reviewed the classification of Belgian banks as domestic systemically important banks. The list of eight institutions previously designated as domestic systemically important banks was confirmed, and the capital surcharges imposed on those institutions were maintained. The level of common equity Tier 1 (CET1) surcharge stands at 1.5 % for BNP Paribas Fortis, KBC Group, Belfius Bank and ING Belgium, and 0.75 % for Euroclear, The Bank of New York Mellon, Argenta and Axa Bank Belgium.

The Bank's other core macroprudential policy activities are discussed in more detail below. They include the analysis and monitoring of vulnerabilities relating to the real estate sector, in which the focus is not only on analysis of the macroprudential risks in housing but also on any risks arising from activities and exposures in

1 Counterparties concluding a derivatives contract must report the details of each transaction to a trade repository of their choice. Apart from data on the identity of the counterparties and the type of contract, its underlying value, maturity and reference amount, the reporting obligation also includes, for example, the value of the contract and the guarantee requirements applicable to the counterparties.

the commercial property sector. In addition, each quarter, the Bank determines the rate of the countercyclical capital buffer for credit risk exposures in Belgium. Finally, during the year under review, the Bank continued to extend its analytical framework for monitoring the risks relating to climate change and the transition to a low-carbon economy.

1. Residential and commercial real estate markets

Residential real estate

In recent years, the Bank has kept a close eye on the risks associated with developments on the Belgian housing market and those relating to the banks' mortgage loan portfolios, more especially in the riskier sub-segments. The IMF, the ECB and the European Systemic Risk Board (ESRB) have also drawn attention to developments on the Belgian housing market. At the end of 2016, the ESRB had issued a warning to eight Member States, including Belgium, on the basis of an analysis of the medium-term risks.

Recent developments on the Belgian mortgage market have confirmed that the vulnerabilities seen in the past had not been resolved (see chapter 3.3. of the "Economic and financial developments" part of the Report). Mortgage lending has continued to grow by more than 5 % per annum since July 2015, and consequently the household debt ratio topped 60 % of GDP in 2018, a level which now exceeds the euro area average. Furthermore, the strong growth of mortgage debt was accompanied by a further easing of borrowing conditions, as the previous favourable trend towards tightening of credit conditions has come to an end. The already significant share of recent mortgage lending represented by loans with a high loan-to-value ratio, i.e. the amount borrowed in relation to the value of the property to be financed, has gone up. The proportion of loans with maturities of over 20 years has risen whereas, at the same time, the interest rates charged to customers have remained low, which could in future limit the adjustment of demand to a higher interest rate environment. Moreover, the share of loans with a debt-service-to-income ratio, i.e. a monthly debt payment in relation to the borrower's income, of more than 50 % has stabilised at a high level. Also, the banks' commercial margins are continuing to shrink, particularly as a result of market competition, dropping to a level which often takes insufficient account of the aforesaid risks. Finally, there has been no break in the house price growth evident in recent decades, and various indicators suggest that these prices are somewhat overvalued (see chapter 3.2. of the "Economic and financial developments" part of this Report).

The Bank considered that a new, stricter and more targeted macroprudential measure was necessary

In view of these developments, the Bank considered that a new macroprudential measure – stricter and more targeted than a previous measure which had expired in 2017 – was definitely necessary, both to maintain the banks' resilience and to promote the continuation of prudent lending criteria and encourage the banks to reduce the share of the riskiest loans in new business.

This measure was notified to the ECB under Article 5 of the Single Supervisory Mechanism Regulation, and subsequently to the various competent European institutions, as specified in Article 458 of the Capital Requirements Regulation. On 20 March 2018, on the basis of the opinions from the ESRB and the European Banking Authority (EBA), the European Commission announced its decision not to raise any objections to the proposed measure with the Council. The measure was then forwarded to the government and approved by the King on 4 May 2018, by means of a new Royal Decree.

The new measure first comprises a linear component, i.e. one targeting all loans in the same way, thus ensuring continuity with the previous measure. This linear component corresponds to a 5 percentage point increase in the risk weighting calculated in accordance with internal models. A second, more targeted, component is applied according to the average risk of each bank's portfolio, using a multiplier. In this case, the initial (microprudential) risk weighting is multiplied by a factor of 1.33. This means that banks holding a riskier mortgage loan portfolio and therefore contributing more to systemic risk are subject to a proportionately higher capital requirement.

Taken together, the two components resulted, at the end of September 2018, in the creation of a buffer amounting to around € 1 700 million consisting of CET 1 capital. The Bank considers that this capital buffer is necessary to enable the banking sector to absorb any major shocks on the Belgian housing market. Although this capital buffer is still relatively modest in absolute terms, it considerably reinforces the resilience of the banks concerned, as it implies an increase in the average risk weighting of Belgian mortgage loans from 10 % to over 18 % (5 percentage point increase due to the first component and 3 percentage point increase due to the second component), which exceeds the European average.

This macroprudential measure was accompanied by a set of measures targeting loan criteria. Back in 2012, the Bank in fact established a framework for monitoring risks in the Belgian mortgage market and has repeatedly reminded the sector of the importance of maintaining sound lending criteria.

The Bank considers that the combination of the two types of measures is an appropriate response to developments on the Belgian housing market and achieves the two aims of its policy concerning that market. First, the banks' resilience is strengthened sufficiently by the application of the capital measure implemented since 30 April 2018. Next, the combination of the second – targeted – component of the capital measure and the measures concerning loan criteria creates significant incentives to maintain a prudent lending policy and reduce the share of the riskiest loans in the banks' portfolios. The Bank expects that the incentives provided by these measures will be enough to achieve that second aim. However, during the course of 2019, an *ex-post* assessment will need to be conducted on the measures taken. If necessary, the Bank will

propose new initiatives to limit the accumulation of systemic risks in this sector.

Commercial real estate

As pointed out in chapter 3 of the "Economic and financial developments" part of this Report, the Belgian financial sector's exposures to the real estate market are not confined to the residential segment alone. Thus, the exposures of Belgian banks and insurers to the commercial segment, be it in the form of loans or other financial instruments issued by companies active in construction or real estate, have grown significantly in recent years. The Belgian non-financial private sector is also exposed to this market, as Belgian households, for example, hold a large proportion of the shares issued by regulated property companies, which are listed firms investing in real estate with the aim of earning rental income. Yet, movements in Belgian commercial property prices have been relatively moderate up to now, and do not suggest any overvaluation, in contrast to what is happening in some European cities.

The size of the exposures of both the financial and non-financial sectors and the significant interaction between the residential and commercial markets make these developments particularly relevant for financial stability. That is why the Bank maintains a close watch on the real estate business sector. One of the main challenges of this analysis concerns rectifying serious gaps in the data, owing to the market's heterogeneity.

2. Countercyclical capital buffer

Once a quarter, the Bank has to set the countercyclical capital buffer (CCyB) rate applicable to credit exposures on counterparties located in Belgian territory. The aim of the CCyB is to support sustained lending throughout the cycle by strengthening the banks' resilience in the event of an increase in cyclical systemic risks (e.g. in the case of excessive credit growth). It uses a wide range of information, including a vast array of indicators considered relevant for signalling the rise in cyclical systemic risks. Each decision on the countercyclical buffer rate is submitted to the ECB and published every quarter on the Bank's website together with a selection of key indicators.

The credit/GDP gap, which compares the level of the credit/GDP ratio to its long-term trend, is one of the key indicators taken into account. In the third quarter of 2018, following the acceleration of the credit cycle which was reflected in stronger growth of lending, notably to Belgian non-financial corporations, this indicator rose to 2 % of GDP, reaching the threshold suggested by the ESRB for activating the buffer.

Overall, the growth of lending to businesses accelerated while the expansion of credit to households stabilised. In November 2018, the annual growth of lending stood at 6.5 % for businesses compared to 5.2 % for households.

The Bank keeps a close eye on these developments. But at the time of the decision concerning the first quarter of 2019, it remained of the opinion that the developments observed did not provide sufficient grounds for raising the countercyclical buffer rate. It is first necessary to analyse the persistence of the lending dynamics, notably in the case of non-financial corporations. As the rise in the countercyclical buffer rate generally becomes effective a year after the date of the decision, activation in the context of a temporary (i.e. non-persistent) increase in lending could lead to the imposition of additional capital buffers at a time when the credit cycle has reverted to a non-excessive profile. However, if the credit cycle in Belgium continues to accelerate, the Bank could consider activating the countercyclical buffer, as has been done in some other EU countries.

In addition to the CCyB applied to exposures in Belgium, Belgian banks also have to apply the buffer rates imposed by foreign authorities on their credit exposures in those countries. The table below gives an overview of the current and future countercyclical buffer rates. The countries listed include a growing number of euro area countries where an acceleration of the credit cycle has been apparent. Variations in response between countries are due mainly to the specific characteristics of national markets, the heterogeneity of the dynamics – i.e. their nature and their persistence – and the desire of some national macroprudential authorities to take action early in the credit cycle recovery phase.

During the year under review, in response to the ESRB's recommendation on recognising and setting

Table 19

Countercyclical buffer rates imposed by foreign authorities

(in %)

Country	Current buffer rate		Future buffer rate	
	Percentage	Entry into force	Percentage	Entry into force
Bulgaria			0.50	01-10-2019
Czech Republic	1.25	01-01-2019	1.50	01-07-2019
			1.75	01-01-2020
Denmark			0.50	31-03-2019
			1.00	30-09-2019
France			0.25	01-07-2019
Hong Kong	2.50	01-01-2019	unchanged	
Iceland	1.25	01-11-2017	1.75	15-05-2019
Ireland			1.00	05-07-2019
Lithuania	0.50	31-12-2018	1.00	30-06-2019
Luxembourg			0.25	01-01-2020
Norway	2.00	31-12-2017	2.50	31-12-2019
Slovakia	1.25	01-08-2018	1.50	01-08-2019
Sweden	2.00	19-03-2017	2.50	19-09-2019
United Kingdom	1.00	28-11-2018	unchanged	

Sources: BIS, ESRB.

countercyclical buffer rates for Europeans banks' exposures to third countries, the Bank identified three non-EU countries in which Belgian banks had significant exposures (the United States, Switzerland and Turkey) and monitored the cyclical systemic risks in those countries. That monitoring forms part of the more general framework of analyses by the ESRB and the ECB for significant exposures at European Union and euro area level respectively.

3. Climate change and transition to a low-carbon economy

The challenges relating to climate change and the transition to a low-carbon economy are attracting ever-increasing attention, and there are growing numbers of initiatives aimed at achieving the goals of the Paris Climate Change Agreement (COP21). Since the financial sector plays a crucial role in funding the transition to a low-carbon economy, the European Commission launched a sustainable finance action plan in March 2018 to ensure that the financial system supports the EU's objectives concerning climate and sustainable development. The transition offers many new funding opportunities for banks, insurers and other investors. Conversely, climate change itself and a potentially abrupt transition due to sudden, unexpected changes in policy, market sentiment or available technologies may pose risks for financial institutions and financial stability. Central banks and prudential authorities, too, are therefore focusing more and more attention on this subject.

Like other European supervisory authorities, the Bank recently added the risks associated with climate change and the transition to a low-carbon economy as points for attention on the list of potential financial risks (see the Bank's Annual Report 2017, Macroprudential Report 2018 and Financial Stability Report 2018). The thematic article on the risks to financial stability associated with climate change and the transition to a low-carbon economy – included in the Financial Stability Report 2018 – describes how climate change and the transition to a low-carbon economy may present risks for financial institutions and financial stability and explains the role that the prudential regulators can play in that regard. The article also contains an initial analysis of those risks for the Belgian financial sector. However, the information

currently available on the exposure of Belgian financial institutions to those risks is not detailed enough to permit an in-depth analysis.

At the end of 2018, in order to gain a better understanding in the short term of the size of those exposures for the Belgian financial sector, the Bank – acting within the framework of its macroprudential mandate – questioned the financial sector on the various climate-related risks and the degree to which institutions had already taken account of them in their risk strategy and policy. In addition, the Bank's sectoral survey aims to make the financial sector more aware of the importance of those risks, thus encouraging financial institutions to monitor, assess and manage them. At present, the lack of common definitions ("taxonomy") and any standardised framework for disclosure of the climate-related risks is a serious impediment to the proper monitoring and assessment of those risks.

While the transition offers financial institutions many new opportunities, climate change itself and a potentially abrupt transition may pose risks

In this connection, the Bank, like the Finance Minister and the FSMA, has endorsed the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD [1]). In addition, the Bank takes part in working groups responsible for implementing the EU Sustainable Finance Action Plan and the related legislation, notably as regards a taxonomy and disclosure requirements. The Bank also takes part in other working groups, for instance via the Network for Greening the Financial System (NGFS) and the Sustainable Insurance Forum (SIF), in which the supervisory authorities of various countries exchange information and discuss the prudential approach to climate-related risks and encouragement for sustainable finance. They also debate and analyse the scope for using stress tests and scenario analyses to assess those risks.

1 In 2017, the Task Force on Climate-related Financial Disclosures (TCFD) published a series of recommendations on voluntary disclosure in the annual reports of both financial and non-financial corporations of consistent, comparable data on governance, strategy, risk management and indicators concerning the climate-related risks and opportunities.

Owing to the long-term prospective nature of climate-related risks, the uncertainty regarding the materialisation, and especially the lack of data of the required quality and granularity, these analyses are still at an early stage.

Nonetheless, the current lack of information and data of adequate quality does not mean that no action can be taken yet. The Bank favours a progressive prudential approach. First, the quality of the information on climate-related risks and green investments must be improved and institutions must be made more aware of the risks relating to climate change and the transition to a low-carbon economy. Even in the absence of a harmonised taxonomy at European level, institutions can already make an effort to improve their understanding of these risks.

Next, the sector could be notified of a range of expectations concerning both the inclusion of these risks in the risk management of financial institutions, and the requirements for reporting and publication (Pillar 3) of information relating to these risks. Climate-related risks need not necessarily be regarded as separate risk categories. Both the physical risk resulting from the actual materialisation of climate change and the risks arising from the transition to a low-carbon economy could considerably amplify the traditional risks, such as credit risk, market risk, operational risk, liquidity risk and insurance risk. For example, large-scale droughts or flooding could increase the risk of failure in the agricultural sector, or the value of buildings taken as collateral could decline as a result of stricter energy performance standards, as in the Netherlands, where commercial buildings must meet a minimum energy standard from 2023 onwards.

Furthermore, climate-related risks should be taken into account in risk assessments by the supervisory authority and, where necessary, capital requirements could ultimately be imposed under the second pillar. Pillar 1 capital requirements could also be adjusted in the future. However, the Bank – like most European supervisory authorities – is convinced that the regulations concerning capital must be based solely on the prudential risks, and that any changes to the capital requirements must therefore be adequately backed by proof of higher or lower risks concerning the exposures to which those changes relate. For instance, the Pillar 1 capital requirements for certain exposures very vulnerable to climate-related risks

(the brown penalising factor) could potentially increase over time if it can be demonstrated that those specific exposures present a greater risk. At the same time, the capital requirements for certain "green" exposures may be reduced (green supporting factor) if it becomes clear that these assets present lower risks than other exposures. But it is important to bear in mind the potential risks which may arise if certain investment projects regarded as "green" are less green than initially expected (greenwashing), if certain technologies prove less promising than predicted, or if market sentiment suddenly changes direction.

Nevertheless, that does not negate the importance of encouraging green investment, on the contrary. Since financial stability has everything to gain from a timely but gradual transition, rather than a belated but abrupt transition, it is vital to encourage green finance. The supervisory authority can help to make the financial sector more sustainable by collaborating on the definition of a common taxonomy and common disclosure requirements, which will promote transparency and stimulate the green investment market. Finally, central banks and prudential authorities can also set a good example. In this respect, the Bank decided to apply the ESG (environmental, social and governance) criteria to the management of part of its asset portfolio (dollar-denominated corporate bonds).

Climate-related risks should be taken into account in risk assessments