REPORT 2018

Prudential regulation and supervision

NationalBank OF BELGIUM
Eurosystem

Prudential regulation and supervision

A. Implementation of the FSAP recommendations

On 8 March 2018, the International Monetary Fund (IMF) published the report[1] on the Financial Sector Assessment Programme (FSAP) for Belgium after having conducted an analysis of the Belgian financial sector and Belgian financial legislation in 2017. This exercise is carried out every five years for countries such as Belgium which have a systemically important financial sector. An FSAP is a financial sector analysis by the IMF and deals with three main subjects: the resilience of the local financial sector, the quality of the financial regulation and supervision framework, and the crisis management toolkit. On completing its FSAP missions, the IMF publishes its analysis and recommendations to the authorities concerned; in Belgium's case, that means the Bank and the federal authorities, plus the single supervisory mechanism (SSM) and the single resolution mechanism (SRM) in their respective capacity as the supervisory authority and the resolution authority for Belgian significant institutions (SIs). These recommendations are not binding but they carry considerable weight.

In its report, the IMF emphasises that the Belgian financial sector has become considerably stronger since the previous FSAP analysis in 2012-2013. The stress tests conducted by the IMF jointly with the NBB and the European Central Bank show that, in Belgium, both the banking sector and the insurance sector are capable of coping with the materialisation of credit risks and market risks resulting from a severe deterioration in the macrofinancial situation. According to the IMF, the banks' resilience shows that the loan portfolios are relatively sound and that exposure to market and liquidity risks is limited. Insurance companies have sound levels of equity capital, and the share of guaranteed-yield products is declining. Nonetheless, the IMF highlights the need for close monitoring of the banks' ability to absorb interest rate shocks and credit risk in certain specific portfolios, and the growing liquidity risks for insurance companies.

Despite the favourable assessment of the health of the Belgian financial sector, the IMF report also mentions a number of challenges. Examples include the potential vulnerabilities in the Belgian housing sector associated with the current low interest rate environment and the increase in Belgian household debt ratios. The FSAP report therefore endorses the additional macroprudential capital requirements proposed by the Bank in 2017 which have since been adopted (see section B.1). The IMF also recommends simplifying the procedure for decisions on macroprudential matters in order to permit a prompt and effective response to macrofinancial developments.

The IMF emphasises that the Belgian financial sector has become considerably stronger since its previous analysis in 2012-2013

The IMF is likewise interested in the development of a European Banking Union. In the IMF's opinion, prudential supervision at the level of European banking groups should be accompanied by sufficiently close attention to the systemically important subsidiaries of those groups during the transition to a full European Banking Union. In Belgium's case, this is important because a number of foreign banking group subsidiaries hold key positions in the financial sector. The IMF also points out here that, during the transitional period preceding full Banking Union, it is vital to maintain sufficient capital and liquidity buffers at the level of these subsidiaries.

1 IMF, *Belgium: Financial System Stability Assessment*, March 2018.

The IMF mentions the significant improvement in the supervision of the Belgian financial sector and financial crisis management in Belgium by the authorities concerned, but encourages new measures in that area. As regards prudential supervision, there should be continued efforts to ensure prudent provisioning practices and to improve the quality of the internal models used to calculate the capital requirements. In that connection, the IMF also asks for special attention to the challenges posed by complex financial conglomerates, changes in the insurance sector's risk profile, and the potential challenges arising from the low quality of some insurers' capital components. As for financial crisis management, the authorities are advised to enhance their ability to manage a crisis by according priority to the resolution plans of systemically important banks and the reinforcement of the deposit guarantee system.

The IMF mentions the significant improvement in the supervision of the Belgian financial sector and financial crisis management in Belgium

Lastly, the IMF states in its report that the oversight arrangements for the Society for Worldwide Interbank Financial Telecommunication (SWIFT), which is based in Belgium, have proved effective but that this company faces new risks, notably cyber security incidents in its global user network. In this connection, the Bank is recommended to strengthen further its role as overseer.

More details on the analysis and the various recommendations may be found in the FSAP report and in the three technical annexes published at the same time by the IMF. These IMF recommendations will have an impact on the authorities' programme in the years ahead. In 2018, in consultation with the other Belgian authorities, the Bank has already taken steps to implement these recommendations.

In parallel with the Belgian FSAP, the IMF also conducted an analysis of the financial sector in the euro area as a whole, and the financial regulation and supervision exercised over that sector. That analysis was likewise very important for assessing the Banking Union and financial regulation in the European Union. Box 10 offers a brief summary of the main conclusions and recommendations of that exercise.

BOX 10

FSAP analysis of the euro area

The FSAP exercise concerning the euro area aimed to analyse the resilience of the European banking sector, the joint supervision of the banks by the SSM and the SRM, and the policy of the ECB and the Eurosystem on the provision of emergency liquidity for credit institutions. This was the first exercise in which the IMF assessed the functioning of the first two components of the Banking Union : the SSM and the SRM.

The IMF concluded that the resilience of large euro area banks has generally improved, but significant vulnerabilities persist. In aggregate, the capital buffers are considered large in relation to the immediate threats, but some individual banks remain particularly vulnerable to credit risks and/or market risks. The banking system as a whole also has sufficient liquidity, notably thanks to the provision of liquidity by the ECB. Nonetheless, the IMF highlights the structurally weak profitability of numerous banks with varying business models. It considers that the risks to financial stability relate mainly to economic and geopolitical uncertainty.

In the IMF's opinion, banking supervision in the euro area has improved markedly with the creation of the SSM. It notes that the SSM has reinforced its independence and its operating efficiency and has succeeded in harmonising prudential supervision at a high level. Yet, banking supervision still faces some major challenges, particularly concerning the resources available to the SSM, the monitoring of the banks' liquidity risks and credit risks, and the fragmentation of the still partly national legislation in the euro area. The Fund likewise stresses the need for better cooperation between prudential supervision and the control of money-laundering. The IMF considers that supervision of the non-bank financial sector has also been strengthened, notably by the proposed transfer to the SSM of responsibility for the supervision of systemically important investment firms in the euro area, and by more centralised supervision of financial market infrastructures (FMIs) by the European Securities and Markets Authority (ESMA) and the ECB. Finally, the IMF considers that macroprudential policy should similarly improve the identification and management of the risks associated with non-bank and cross-border financial flows.

The conclusions of the FSAP analysis also state that banking crisis management has been strengthened considerably, but that here, too, the arrangements remain fragmented. In the IMF's opinion, adoption of the Bank Resolution and Recovery Directive (BRRD) and establishment of the SSM and the SRM provide a sounder basis for dealing with banks in difficulty. Recent instances of intervention in the case of banks in difficulty have demonstrated a number of strengths but also revealed that there are still circumstances which encourage circumvention of the BRRD and lead to more government intervention. Consequently, in the view of the IMF, the banking crisis management framework in the euro area still faces significant transitional and structural challenges. In that connection, the Fund referred to one crucial challenge : the accumulation of internal reinforcement instruments (minimum requirement for own funds and eligible liabilities or MREL), which needs to speed up, particularly for the large banks. In addition, the SSM, the SRM and the Single Resolution Fund (SRF) must continue to strengthen their respective operational capability and financial soundness. In that context, the IMF also calls for the establishment of a European deposit guarantee scheme and greater harmonisation, with – ultimately – centralisation of the emergency liquidity to be made available to credit institutions by central banks.

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

C. Resolution

The Bank's actions as the resolution authority for credit institutions take place within the broader framework of the single resolution mechanism (SRM), in which it participates as the national resolution authority. The SRM was established in 2014 with the Single Resolution Board (SRB) at its centre. Since its creation, progress has been steady thanks to the close cooperation between the SRB and the national resolution authorities. In the past few years, the SRM has permitted the implementation of a completely new resolution framework. Whilst important progress has been made, the challenges remain significant and many questions still need to be resolved.

Within this context, and in accordance with the Royal Decree determining the rules on its organisation and operation[1], the Bank's Resolution College has set up an action plan for 2018. The plan is intended to support the work under the SRM. It is structured around four main objectives, namely (i) ensuring that a robust legislative and regulatory framework for dealing with default scenarios is developed; (ii) improving the resolvability of Belgian credit institutions and stockbroking firms; (iii) establishing crisis management capacity and operationalising the resolution tools; and (iv) supporting resolution funding arrangements.

1. Legislative and regulatory framework

During the year under review, the legal framework for resolution was significantly modified following the adoption by the European co-legislators of a proposal for a Directive amending the Bank Resolution and Recovery Directive (BRRD)[2], and a draft Regulation amending the Single Resolution Mechanism Regulation (SRMR)[3]. Adoption of these proposals brings substantial additions to the rules on the minimum requirement for own funds and eligible liabilities (MREL) introduced by the BRRD in 2014, by transposing into European law such things as the total loss-absorbing capacity (TLAC) standard defined by the Financial Stability Board (FSB). They also clarify certain rules on implementation of the MREL for all European Union credit institutions.

The above-mentioned Directive and Regulation form part of a set of provisions known as the risk reduction measures. These measures are described in more detail in box 14.

In addition, during 2018, the Bank took part in the work of the SRB aimed at clarifying the practical arrangements governing the implementation of the existing regulatory framework, by developing horizontal technical notes supporting the preparation of resolution plans and ensuring their overall consistency. In 2018, these horizontal technical notes mainly concerned the topics identified in the SRB Work Programme for 2018-2020, in particular the choice of resolution tools in the resolution plans and the specific requirements relating to the planning of each of these tools, the public interest test which determines which credit institutions are likely

1 Royal Decree of 22 February 2015 determining the rules on the organisation and operation of the Resolution College, the conditions relating to the exchange of information by the Resolution College with third parties, and the measures to prevent conflicts of interest.

2 Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms and amending Council Directive 82/891/EEC, as well as Directives 2001/24/EC, 2002/47/EC, 2004/25/EC, 2005/56/EC, 2007/36/EC, 2011/35/EU, 2012/30/EU and 2013/36/EU and Regulations (EU) No. 1093/2010 and (EU) No. 648/2012 of the European Parliament and of the Council.

3 Regulation (EU) No. 806/2014 of the European Parliament and of the Council of 15 July 2014 establishing uniform rules and a uniform procedure for the resolution of credit institutions and certain investment firms in the framework of a Single Resolution Mechanism and a Single Resolution Fund and amending Regulation (EU) No. 1093/2010.

to satisfy the conditions for resolution, the simplified obligations regime, the MREL, identification of critical functions, and operational continuity in the event of a crisis, including access to market infrastructures.

All these developments and actions contribute to the establishment of a new harmonised working framework within the Banking Union. The SRB, in close cooperation with the national resolution authorities, has played a key role enabling substantial progress to be made. Nevertheless, there are still many challenges to address in order to attain the resolvability objectives defined by the Directive for all credit institutions and investment firms in the European Union. Two questions in particular are of singular importance for Belgium, given the characteristics of its financial system.

Despite the substantial progress made there are still many challenges to address in order to attain the BRRD's resolvability objectives for all credit institutions and investment firms in the EU

The first question concerns the reinforcement of the MREL policy. The availability of sufficient financial resources to absorb losses and recapitalise is essential to ensure the feasibility and credibility of effective resolution by application of the resolution tools and, in particular the bail-in instrument. To that end, the BRRD specifies that institutions must satisfy an MREL requirement on an individual basis, and that the European Union parent undertakings must also meet an MREL requirement on a consolidated basis. As the national resolution authority, the Bank constantly advocates the implementation of a sound resolution model based on the application of appropriate liability buffers. That entails the determination of MREL requirements of a sufficient level and quality, i.e. requirements that must be met with tools which do not compromise the implementation of the resolution strategy in the event of a bail-in. In this context, the Bank is encouraging the SRB to reinforce its MREL policy and go beyond what it currently envisages.

The second question concerns the resolution strategy for less significant credit institutions. Under certain favourable market conditions, a liquidation under normal insolvency proceedings could be considered feasible for these institutions but it could prove more problematic in the event of a systemic crisis. The Bank has initiated an exchange of views with the European Commission and the SRB to clarify the requirements that apply to this type of institution under the current framework, both those applicable at the time of drawing up the resolution plan and those applicable once the institution is actually failing. In this context, account was taken of the precedents set by crisis management of the Venetian banks in 2017 (see box 10 in the Report 2017) and what implications these may have for the requirements set by the BRRD. This second question also demonstrates the need to strike the right balance between resolvability on the one hand and proportionality on the other.

2. Resolvability of credit institutions and stockbroking firms

The BRRD specifies that resolution authorities prepare a resolution plan for each banking group established in the European Union and for each credit institution or investment firm established in the European Union and not already belonging to a banking group. In Belgium, this obligation rests partly with the SRB and partly with the Bank, in accordance with the allocation of powers defined in the SRMR.

The development of a resolution plan is the outcome of a multi-annual process. Its objective is to make every banking group resolvable. It defines the presumed sequence of actions that the resolution authority could take to resolve a crisis and ensures that the institution or banking group is ready to implement these measures or any alternative to them. The resolution plan establishes a presumption taking into account that, in the event of an actual or likely failure, the resolution authorities can deviate from the measures specified in the resolution plan if that helps achieve the resolution objectives more effectively.

Once the resolution plan has been developed, the resolution authority assesses the resolvability and determines the MREL requirement. If an institution cannot be resolved, the resolution authority gives it a period of time after which it must have proposed measures to remedy the problems identified.

If the proposed measures are not satisfactory, the resolution authority has a range of powers enabling it to remove the substantive impediments to the resolvability of that institution.

For banking groups falling under its competence, the SRB has adopted a multi-annual approach. Each annual resolution plan cycle represents significant progress as additional elements are examined during each cycle with the aim of completing, by 2020, resolution plans that respect all the requirements laid down by the BRRD. The annual resolution cycle which began in 2018 will be an important step towards preparation of plans under the competence of the SRB in that those plans will incorporate not only a consolidated MREL requirement but also an individual MREL requirement, and the SRB will carry out a first assessment of the impediments to resolvability.

During the year under review, the SRB adopted the first binding MREL decisions for EU parent companies at a consolidated level. Three decisions concern EU parent companies governed by Belgian law, including one for which a resolution college has been established.

The consolidated MREL requirement is defined on the basis of the methodology adopted by the SRB in 2017. The requirement includes a loss absorption amount and an amount intended to ensure recapitalisation and market confidence. The first amount is based on the own funds requirements, namely the Pillar 1 capital requirements, the Pillar 2 capital requirements and the sum of the combined buffer requirements. The second amount consists of two components. The recapitalisation amount corresponds to the Pillar 1 and 2 capital requirements applied to the risk-weighted assets as it would be determined after resolution. Within certain limits, that amount can therefore take account of a reduction in the risk-weighted assets due to the materialisation of certain risks. It is supplemented by an amount intended to ensure market confidence, which corresponds to the combined buffer requirements minus 125 basis points. While this method determines the level of the MREL requirement, It should be noted that, in 2018, the SRB had not yet set any binding requirement for the composition of the MREL, and in particular the part of the MREL requirement which must be met with instruments absorbing losses before unsecured creditors in the event of liquidation.

The decision-making procedure for determining the MREL requirement on a consolidated basis varies between the banks for which a resolution college has been set up and those for which that is not the case. For the former, the MREL requirement is determined by a joint decision of the resolution college, after which the decision is ratified by the SRB in executive session. For banks without a resolution college, the MREL requirement is set by the SRB in executive session. Once the MREL requirement has been determined, the SRB – in accordance with the SRMR – refers the decision to the national resolution authorities which are responsible for its implementation.

In its capacity as the Belgian national resolution authority, the Bank takes part in the SRB's decision-making process in its executive session for institutions or groups established solely in Belgium and for cross-border groups whose parent company or subsidiary is established in Belgium. The executive session of the SRB adopts its decisions, including those concerning draft resolution plans and draft MREL decisions, by unanimity among its members. In the absence of consensus, decisions may be adopted by a simple majority of the permanent members of the SRB alone. This decision-making process, laid down in the SRMR, differs for example from the decision-making mechanisms in the ECB's Supervisory Board where the principle is that each representative has one vote. Such a decision-making process, where the representatives of the national resolution authorities are not required to vote in the absence of consensus, does not offer sufficient guarantees regarding consideration for national sensitivities or the effective handling of problems identified at that level. In this context, it is crucial that MREL decisions enable the credible implementation of the chosen resolution strategies, and in particular implementation of the bail-in tool, without any adverse effect on deposits. That is all the more important as any shortcomings in this regard could have implications for the risk of government intervention in the event of a financial crisis.

It is crucial for MREL decisions to permit the credible implementation of the chosen resolution strategies without any adverse effect on deposits

In 2018, the Bank's Resolution College adopted draft resolution plans for 13 less significant institutions (LSIs) as well as draft MREL decisions at individual or consolidated level for each of these banks or banking groups. These drafts were submitted to the SRB, which has the right to express its opinion on them, and in particular to indicate any elements of the draft decision that do not comply with the Regulation or the SRB's general instructions. The SRB's opinion is expected during the first quarter of 2019. The draft resolution plan and the draft MREL decisions will then be formally adopted by the Resolution College.

Although every LSI draft resolution plan is specific and is drawn up according to the particular characteristics of the institution or banking group, three categories can nevertheless be distinguished. In the first category of plans, if the supervisory or resolution authority finds that an institution is failing or likely to fail, it is wound up under normal insolvency proceedings. In other words, the resolution authority does not foresee the use of resolution tools if the institution is failing. In most cases, this concerns institutions whose failure would have a very minor impact on the Belgian economy and on the stability of the Belgian financial system, and which are therefore unlikely to meet the public interest criterion in the event of failure.

In contrast to the first category, plans in the second category explicitly envisage the use of the resolution tools if an institution is failing or likely to fail. In particular, the resolution authority considers that, in view of the size of the institution, its deposits, or its interconnectedness with other Belgian credit institutions, it is less likely that liquidation under normal insolvency proceedings would achieve the objectives of resolution as effectively as a resolution procedure. The resolution objectives are to ensure the continuity of the institution's critical functions, to avoid any significant adverse effect on the stability of the financial system, in particular by preventing contagion, and to protect public funds, the covered deposits and investors, as well as customers' funds and assets.

The third category of plans concerns institutions for which liquidation under normal insolvency proceedings is considered credible if the institution is found to be failing or likely to fail under normal circumstances, i.e. in the event of an idiosyncratic crisis. In the event of a systemic crisis, it is presumed that such a procedure would have a contagion effect, which could be contained by initiating a resolution procedure. These plans provide therefore the implementation of these two options.

3. Development of crisis management capacity and operationalisation of resolution tools

When a resolution procedure is initiated, the responsibility for implementing the resolution tools rests with the national resolution authorities, regardless of whether the crisis to be resolved concerns an institution under the SRB's competence or one which comes under the competence of the national authorities.

In this connection, the Bank has drafted a national manual detailing each step to be followed and each measure to be implemented when applying the bail-in tool. This general manual supplements the specific analyses conducted by the groups concerned when drawing up their resolution plan (bail-in playbook). This manual and these analyses are intended to facilitate implementation of the bail-in tool and also illustrate the potential problems entailed when applying this resolution tool. In order to cover the whole resolution spectrum, this manual will need to be supplemented for each of the other three resolution tools, namely the sale of business tool, the asset separation tool, and the bridge institution tool. The drafting of these national manuals by the national resolution authorities forms part of a broader project piloted by the SRB.

4. Constitution of resolution funding schemes

In 2018, the SRB collected € 285 million from 34 Belgian institutions liable for contributions, compared to € 250 million in 2017. This increase can be explained by the further mutualisation of the Single Resolution Fund during the transition period, the application of an additional risk indicator, and the application of a higher growth factor, which incorporates the growth of the covered deposits. The institutions were authorised to pay 15 % of their contribution in the form of an irrevocable payment commitment guaranteed by cash collateral. The total contribution of Belgian institutions in the form of irrevocable payment commitments came to € 30 million in 2018. Altogether, € 7.5 billion was collected in 2018 from institutions subject to the SRMR. Consequently, the SRF now has € 24.9 billion at its disposal. The target level to be reached by the end of the initial 8-year period, that is 31 December 2023, is 1 % of the total deposits covered of all authorised credit institutions within the Banking Union, and can be estimated at € 56.3 billion on the basis of the current amount of covered deposits.

The Bank has drafted a manual detailing each step to be followed and each measure to be implemented when applying the bail-in tool

For institutions which are not covered by the SRF, namely Belgian branches of third-country credit institutions or investment firms, and stockbroking firms governed by Belgian law which do not fall under the ECB's consolidated supervision of the parent company, the Law of 27 June 2016 provides for the establishment of a national resolution fund, also financed by the collection of annual contributions. The contributing institutions paid just over € 405 000 into the national resolution fund in 2018, compared to € 452 000 in 2017, which means that the fund now contains € 1.2 million. In 2023, the fund should contain € 3.3 million.

D. Banks and stockbroking firms

Under the SSM, new initiatives were taken in parallel with those of the European Commission to address the persistently high level of non-performing loans in certain countries, and the banks underwent a new SREP assessment. New stress tests were coordinated at European level by the EBA, and in Belgium by the Bank.

At national level, horizontal analyses focused particularly on the risks associated with interest rates, financing, liquidity and the business models of Belgian banks. On-site inspection missions examined the governance, business models and main risks present in credit institutions. In particular, the missions concerning internal models formed part of the TRIM project set up at SSM level, and among other things focused on credit risk and market risk.

Developments concerning banking regulation took place mainly at the European Union level, where work continued at a steady pace to strengthen the Banking Union and the Capital Markets Union. At global level, following the conclusion of the Basel III agreement at the end of 2017, the work of the Basel Committee on Banking Supervision focused more on the implementation and assessment of the Basel III reforms and on the scope for regulatory arbitrage. At Belgian level, the Bank published a new Circular and updated its governance manual.

1. Mapping of the sector, supervision priorities and operational aspects

1.1 Population and classification of Belgian banks according to the SSM criteria

While the bank population remained stable overall at 105 institutions in 2018, the number of credit institutions governed by Belgian law was down by two units at 32. This decline concerns two banking subsidiaries which merged with their Belgian parent bank. Conversely, the population of branches of European credit institutions increased in net terms by one unit (four new approvals and three licence withdrawals).

These movements seem to bear out a number of underlying trends. First, consolidation has been steadily taking place for several years in the segment comprising Belgian banks which apply a relatively traditional business model (private customers and SMEs served by a hybrid distribution network with both physical outlets and internet access). This consolidation often stems from the need to achieve economies of scale and rationalise costs in order to bring the existing distribution channels more into line with the digital future. It should be noted that a series of licence applications are currently being examined for new banks which intend to offer a range of almost exclusively digital services, aimed at specific niches such as private banking, or a broader public for ordinary banking transactions.

The ongoing consolidation stems from the need to rationalise costs, and the desire to bring the existing distribution channels more into line with the digital future

In regard to branches, some banks are reconsidering their location in the European Union and in the euro area, not only in the context of the United Kingdom's departure from the EU, but also as part of a more

general effort by the banks to adapt their geographical position to commercial needs.

In most cases, the branches have a small target group of professional counterparties, and their market share is modest. However, completion of the Banking Union is likely to bring a more fundamental reorganisation of the banking landscape in the euro area and in Belgium, which will probably be accompanied by an increase in the number of branches targeting the banking needs of individuals and other non-professional counterparties as regards payments, savings and investment.

In the euro area, banking supervision is exercised by the SSM, which is based on cooperation between the ECB and the national banking supervision authorities of the euro area. The ECB exercises direct supervision over all significant institutions (SIs) with the assistance of the national supervisory authorities. The latter continue to maintain direct supervision over less significant institutions (LSIs), although the ECB may take on the direct supervision of those institutions if that is justified for the consistent application of its supervision standards.

In the case of the SIs, under the direction of the ECB, the Bank takes part in 15 Joint Supervisory Teams (JSTs) which supervise significant Belgian institutions, be they Belgian banks owned by a Belgian parent company, Belgium-based subsidiaries of a non-Belgian parent company subject to the SSM, or banks established in Belgium and owned by a non-Belgian parent company not subject to either the SSM or the law of an EEA member country. The group of Belgian LSIs comprises 15 banks; that number goes up to 19 if financial holding companies and financial services groups of less significant institutions are included.

Table 20

Number of institutions subject to supervision

(end-of-period data)

	2017	2018
Credit institutions	104	105
Under Belgian law	34	32
Branches governed by the law of an EEA member country	46	47
Branches governed by the law of a non-EEA member country	8	8
Financial holding companies	5	6
Financial services groups	5	5
Other financial institutions[1]	6	7
Investment firms	32	32
Under Belgian law	19	17
Branches governed by the law of an EEA member country	11	14
Financial holding companies	2	1

Source: NBB.

1 Specialist subsidiaries of credit institutions and credit institutions associated with a central institution with which they form a federation.

Table 21

Belgian banks grouped according to the SSM classification criteria

Significant institutions (SIs)	Less significant institutions (LSIs)
Belgian parent	Groupe Anbang – Banque Nagelmackers
Argenta	Byblos Bank Europe
AXA Bank Belgium	CPH
Belfius	Crelan Group (Crelan, Europabank)
Degroof Petercam	Datex Group – CKV group
Dexia (financial holding company)	Dierickx-Leys
KBC Group KBC Banque, CBC	ENI
Non-Belgian SSM-member parent	Euroclear
BNP Paribas Fortis, bpost bank	Finaxis Group – Delen Private Bank, Bank J. Van Breda & C°
Groupe CMNE – Beobank, Banque Transatlantique Belgium	Shizuoka Bank
ING Belgium	United Taiwan Bank
Banca Monte Paschi Belgio	Van de Put & C°
MeDirect Bank	vdk bank
Puilaetco Dewaay Private Bankers	
Santander Consumer Bank	
Société Générale Private Banking	
Non-SSM member parent not governed by the law of an EEA member country	
Bank of New York Mellon	

Source: NBB.

BOX 11

The Bank's role in the single supervisory mechanism

Since 2014, banking supervision in Europe has been organised via the single supervisory mechanism (SSM). The SSM comprises the ECB and the national supervisory authorities of the euro area countries, including the Bank.

The SSM's main aims are to safeguard the safety and soundness of the European banking system, to increase financial integration and stability, and to ensure consistent banking supervision.

With the SSM, the decision-making process has become longer and more complex, in that prudential decisions concerning Belgian banks are no longer taken by the National Bank in Brussels but by the ECB in Frankfurt. On the other hand, the Bank is now involved in decisions taken in Frankfurt, not only for Belgian banks but for all banks in the euro area. Those decisions are prepared under a cooperative effort

between the ECB and the national supervisory authorities concerned, including the Bank. This mechanism also avoids any national bias in the decision-making process.

The Bank's role in the SSM is therefore performed at various levels. Within the SSM, decisions are taken by the ECB Governing Council (on which the NBB's Governor has a seat) on the proposal of the SSM Supervisory Board (in which the NBB's Director in charge of banking supervision represents the Bank). Depending on their nature, the decisions are prepared by Joint Supervisory Teams (JSTs), inspection teams or SSM horizontal functions.

The JSTs conduct the day-to-day supervision of significant banks. Under the SSM, each significant bank or banking group (significant institution or SI), has its own JST composed of staff of the ECB and the national supervisory authorities. The Bank takes part not only in the JSTs of banking groups which have their (European) head office in Belgium, but also in the JSTs of Belgian banks which have their principal place of business elsewhere in the euro area. There are thus 15 JSTs in which the Bank plays an active part: seven for groups which have their (European) head office in Belgium (Argenta, AXA Bank, Belfius, Degroof Petercam, Dexia, KBC, The Bank of New York Mellon) and eight for institutions headed by a parent company established elsewhere in the euro area (BNPP Fortis and bpost banque, groupe Crédit Mutuel, ING Belgium, MeDirect, Monte Paschi Belgio, Puilaetco, Santander Consumer Bank, Société Générale Private Banking).

The allocation of tasks in a JST depends on the size and structure of the banking group subject to its supervision. The Bank's staff who are members of a JST analyse the risks incurred by the banking group concerned in Belgium but also help to monitor the risks to which the group is exposed elsewhere. In larger

JSTs, which supervise the largest and most complex banking groups, there is scope for specialisation, with the JST's Belgian members concentrating, for example, on one specific risk (such as operational risk) for the banking group as a whole.

In the SSM, the ECB exercises direct supervision over the 119 SIs in the participating Member States. Together, these banks account for almost 82 % of the total banking assets of the euro area. Banks which are not considered "significant" are classed as "less significant" institutions. This mainly concerns local and specialist banks. They remain subject to the supervision of the national supervisory authorities, in close cooperation with the ECB. The Bank is thus the supervisory authority for fifteen local banks or specialist institutions (such as Euroclear).

On-site inspections of institutions subject to SSM supervision are conducted by teams comprising inspectors from the ECB and the national supervisory authorities such as the Bank. In principle, these inspection teams are led by staff of the national supervisory authority, but an inspection team may also be led by the ECB.

The SSM is supported by the horizontal functions of the ECB and the national supervisory authorities. The methodology for risk monitoring and analysis and other aspects of supervision is drawn up by committees and networks comprising experts from the ECB and national supervisory authorities such as the Bank.

The national supervisory authorities of the SSM continue to supply the great majority of the staff responsible for prudential supervision tasks. The reason lies partly in the design and organisation of the SSM, which supplemented the existing supervisory capability of the national supervisory authorities when the SSM was launched with a well-defined central supervisory capacity at the ECB. Also, the national supervisory authorities often have to cover an area of supervision broader than that specifically entrusted to the SSM. For instance, the SSM does not cover certain categories of institutions (branches of third country banks, representative agencies, stockbroking firms), measures to tackle money-laundering and tax mechanisms, structural reform of the financial market, etc.

The Bank currently allocates around 125 staff to the microprudential supervision of credit institutions and investment firms. The allocation of these resources is broken down as follows:

a) 50 % to ongoing (off-site) supervision over each institution. This concerns analysis of the financial situation, compliance with the regulatory ratios (solvency, liquidity, balance sheet ratios, etc.), assessment of the risks to which each institution is exposed and how they are covered, and assessment of the institution's corporate governance;

b) 30 % to on-site supervision. This concerns the inspection function, which carries out on-site inspections at institutions according to a specified audit methodology and on the basis of a predefined mission and includes checks on the models that the banks use to calculate their capital requirements;

c) 20 % to transversal activities, such as the collection and validation of the data that institutions must submit to the supervisory authority, and support for the teams in charge of examining new licence applications and assessing the suitability of the institutions' directors and shareholders. This also concerns monitoring the way in which individual institutions incorporate new financial sector trends

in their business model (for example, as regards FinTech or the PSD2), trends which, while offering new opportunities, may also entail risks.

As mentioned earlier, the Bank also has the task of watching over financial institutions' compliance with the legislation aimed at preventing the use of the financial system for the purpose of money-laundering and terrorist financing, and the financing of the proliferation of weapons of mass destruction. That task has not been transferred to the ECB, including as regards the SIs. Finally, the ECB has certain macroprudential powers under the SSM, but that is without prejudice to the responsibility of the national macroprudential supervisory authority.

1.2 The deliverables of microprudential supervision

Microprudential supervision is conducted by various teams of staff. Some staff analyse and assess a given institution's financial situation and the risks to which it is exposed (ongoing or off-site supervision). Others conduct on-site inspections at institutions on the basis of a specific mission, using the audit methodology (on-site supervision). Finally, there are teams responsible for checking and validating the quantitative "internal" models used by certain institutions to calculate their capital requirements.

Microprudential supervision is conducted by various multidisciplinary teams of staff covering ongoing supervision (off-site role), on-site inspections (on-site supervision) and checks on internal models

This supervision cannot achieve its intended targets and results unless all the analyses, examination and monitoring lead to deliverables resulting in operational supervision decisions and actions in regard to the institution. The activities of the various functions involved are spelt out below.

Ongoing (off-site) supervision – Decision on capital

In principle, the analyses and examinations concerning a bank's financial situation and risks lead each year to a SREP (Supervisory Review and Evaluation Process) decision. The SREP follows a common methodology and decision-making process permitting horizontal comparisons and analyses. The harmonised SREP ensures that institutions in similar situations are treated in the same way and assessed according to the same criteria.

Periodically, each institution therefore receives an individual SREP decision aimed at making continuous improvements to its position (financial situation, organisation and governance). Thus, the supervisory authorities' decisions comprise not only additional capital requirements on top of the minimum requirements, but also supplementary measures addressing weaknesses specific to the institution concerned.

Decisions are based on a combination of quantitative and qualitative elements derived from an overall assessment of the institution's sustainability, capital and liquidity. Apart from supplementary capital and liquidity requirements, SREP decisions may include quality control measures, such as the imposition of conditions or restrictions on activities, reinforcement of the internal control environment, the obligation to reduce risks, limitation or prior approval of the payment of dividends, or the imposition of supplementary or more frequent reporting obligations.

The results of the SREP decisions applicable to Belgian banks and taken during the year under review are presented in section D.2.2 below.

On-site inspections – Inspection report

The inspections supplement the ongoing supervision of institutions and aim to provide a detailed analysis of the various risks, internal control systems, business models and governance of the supervised legal entities.

They are conducted on the premises of the supervised legal entities according to a predefined scope and timetable. The inspections must be risk-based, proportionate, intrusive, prospective and pragmatic.

Under the responsibility of a head of mission, the inspection teams act independently of the teams in charge of ongoing supervision, but in coordination with them.

Unless there are special reasons for doing otherwise, the inspection process follows various defined steps detailed in the manuals used by the inspectors:

- the preparatory phase, which comprises confirmation of the availability of the parties concerned, notification of the start of the inspection to the supervised entity, and production of a preparatory memorandum for the inspection, describing the reasons justifying it and its scope and objectives. Before the meeting at the start of the inspection, the head of mission also sends an initial request for information;

- the inspection itself takes place on the premises of the supervised legal entity. The investigation phase comprises interviews and examination of procedures, reports and files. Evidence is collected in order to ensure that an "audit trail" is in place for all the weaknesses identified by the inspection team. Various inspection techniques are used: observation, verification and analysis of information, targeted interviews, process analysis, sampling/case-by-case examination, confirmation of data, etc.;

- in the report phase, the inspection's findings are formalised in an inspection report which contains conclusions, a schedule of findings or recommendations, and a main part. Annexes may be added. It should be noted that:

  - the findings or recommendations are ranked according to their actual or potential impact on the financial situation of the supervised legal entity, its level of capital, internal governance, and risk control and management. The reputational risk incurred by the supervised legal entity is also taken into account;

  - in addition, the report gives an overall score which reflects the general assessment on completion of the inspection[1];

  - the draft report is sent to the supervised legal entity a few days before an end-of-mission meeting is held, at which the inspection team presents the inspection results;

  - taking account of comments received at the end-of-mission meeting[2], the head of mission will then finalise the draft report, which will be sent to the supervised legal entity.

The inspection reports give rise to recommendations which will be monitored by the teams in charge of the ongoing supervision of the legal entities concerned. Those teams will be responsible for monitoring the implementation of the corrective measures under an action plan defined with the supervised legal entity.

On the date set in the action plan, the monitoring phase may be ended if the measures taken by the supervised legal entity conform entirely to the monitoring request, or additional information may be requested for the purpose of adjusting the action plan.

The inspections may also result in the application of prudential measures under the disciplinary powers assigned to the regulator.

In 2018, the inspections concerned the governance, business models and main risks in the institutions subject to supervision: credit risk, market risk, liquidity risk, interest rate risk, operational risk (including IT risk), reputational risk, etc.

The inspections covered significant and less significant credit institutions (SIs and LSIs), but also

1 Inspection reports produced under the SSM do not give an overall score.
2 In the case of inspections conducted under the SSM, the supervised legal entity has two weeks to respond in writing.

investment firms and payment institutions subject to the Bank's supervision.

The prevention of money-laundering was another subject covered in 2018 by inspections of all categories of institutions subject to supervision.

Inspections on internal models

Inspections of internal models aim to assess the quality of the models that banks use to calculate their regulatory capital requirements, in the light of the regulations in force. These models should lead to better risk management.

Since the regulations governing internal models are principles-based, their assessment relies to a large extent on judgment and benchmarking in relation to other banks and current good practice. This assessment is facilitated by use of the ECB guide to internal models, which describes the SSM's interpretation of the laws relating to models.

The scope of the models reviewed covers all Pillar 1 risks (credit risk, market risk, operational risk and counterparty risk), and the economic capital models used by the banks under Pillar 2.

The inspections concerning internal models take place mainly on site and are facilitated by files supplied by the banks; the files contain all the relevant information enabling the inspectors to understand and assess the models used by the banks.

Apart from the usual inspection techniques, inspectors often use modelling of their own to quantify errors and simplifications on the part of the banks. This quantification is important to determine the severity of the weaknesses detected.

The inspection culminates in a report containing a description of the models reviewed and the weaknesses identified.

Recommendations aimed at remedying these weaknesses and a proposal for a decision (approval or rejection) are set out in a note by the inspection team and submitted to the management of the SSM. This proposal for a decision may be accompanied by a capital penalty. Decisions are followed up by the JSTs (see box 11), possibly with the assistance of the inspectors who carried out the mission.

The on-site missions conducted in 2018 continued to form part of the TRIM (Targeted Review of Internal Models) project, set up at SSM level and intended to strengthen credibility and confirm the suitability and relevance of the internal models used by SIs to calculate their capital requirements. The missions focused mainly on models for calculating the credit risk for retail customers and SMEs, and models for calculating market risk.

A last wave of missions will take place in 2019 under the TRIM. It will cover the models that SIs use to calculate the credit risk on portfolios with a historically low default rate (large firms, financial institutions, specialised lending).

Apart from these missions forming part of the TRIM, work focused on analysing credit risk models, including the pre-application work for one bank wishing to apply the internal models approach in the near future. One operational risk model was also monitored.

Horizontal analyses

In parallel with producing these deliverables, the Bank conducted various specific horizontal analyses of the Belgian banking sector (see box 12).

BOX 12

Horizontal analyses of the banking sector

Interest rate risk

In a low interest rate environment and owing to the possible impact of either persistently low interest rates or a sudden, rapid rise, interest rate risk has for a number of years been among the priorities in the supervision of Belgian credit institutions. The trend in the interest income of Belgian banks and the prudential parameters concerning interest rate risk are therefore analysed in detail.

Belgian banks generally have a relatively large proportion of assets on which the interest rates are fixed for a prolonged period. These assets consist predominantly of mortgage loans, financed mainly by sight deposits and savings deposits with no contractual maturity or repricing date. Consequently, Belgian banks have a relatively large average duration gap between the assets and liabilities and have to make extensive use of derivatives to hedge the resulting interest rate risk. However, the use of derivatives entails other risks, as explained in detail in the thematic article on "Derivatives and systemic risk" in the Bank's 2018 Financial Stability Report. In addition, the banks depend heavily on behaviour models to estimate the repricing behaviour of non-maturity deposits and prepayments of mortgage loans. That implies a significant model risk, as observed behaviour may differ from estimated behaviour. Owing to the size of the duration gap, the considerable use of derivatives, and the high model risk, the Belgian banks' exposure to interest rate risk on non-trading activities exceeds the average for the euro area banking sector, and that is also reflected in the stress tests conducted by the SSM in 2017, which aimed to obtain additional information on interest rate sensitivity of the economic value of banks' capital[1] and their net interest income.

As also shown by the business model analysis (see below), the low interest rate environment puts pressure on Belgian banks' interest income, as interest rates on deposits have fallen to their lowest level while interest rates received on the assets are steadily revised downwards, further exacerbated by the prepayment of mortgage loans. That is also reflected in the periodic reports that Belgian banks submit to the Bank, in which they are asked to indicate the economic value of equity and their interest income over the next three years for their banking book on the basis of various scenarios. In these calculations, banks have to take account of various set principles, including a maximum interest rate revision period for sight deposits and savings deposits, and the assumption of a constant balance sheet, so that the figures submitted can be more readily compared between the various institutions.

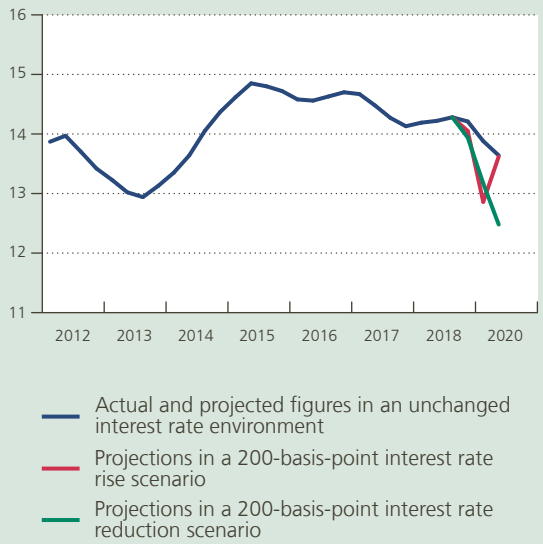
The chart below shows the net interest income of the Belgian banking sector from June 2012 and the estimated future interest income for the three years from June 2018 onwards according to three scenarios: constant interest rates, a 200-basis-point increase and a 200-basis-point reduction in interest rates. The chart below shows that, while a persistently low interest rate environment would depress the banks' profitability in the years ahead, the same could apply if interest rates were to go up. Although higher interest rates, and especially a steeper slope in the yield curve, are generally

1 The economic value of equity is the discounted value of a bank's net assets, all cash flows being taken into account at the time of the next interest rate adjustment and discounted at a risk-free interest rate.

more favourable to the Belgian banking sector, given that their transformation margin resulting from the financing of long-term loans by short-term deposits would increase, a sudden, steep rise in interest rates could equally be disadvantageous – at least temporarily – for the banks' interest income since the financing cost could rise sharply while interest rates on the invested assets would still remain low for some time.

Actual and projected annual net interest income of Belgian banks

(data on a consolidated basis, in € billion)



Source: NBB.

Note: The projections are derived from the Belgian banks' periodic reporting to the Bank in which they estimate the income projected according to various scenarios defined on the basis of their internal models, taking account of certain assumptions supplied by the Bank.

In a low interest rate environment, the banks may tend to increase the duration gap, as this would widen their transformation margin and hence their net interest income if interest rates remain low. However, a bigger duration gap makes the banks more exposed to a sudden rise in interest rates.

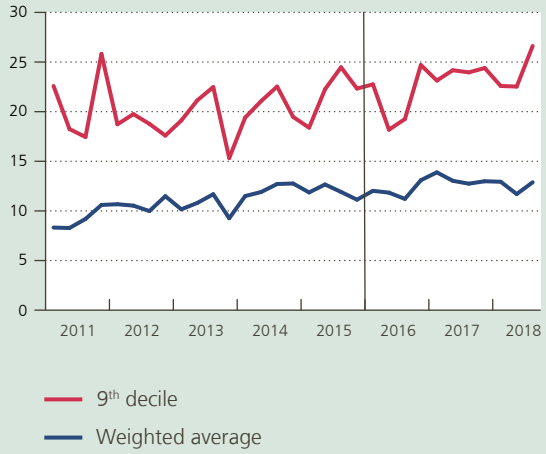
The reporting suggests that the weighted average sensitivity of the economic value to a 200-basis-point interest rate rise[1] has increased slightly since 2014, which could indicate a slight widening of the duration gap owing to the low interest rates. However, the figures need to be interpreted with due caution.

1 In accordance with Article 98 (5) of European Directive 2013/36/EU (CRD), transposed into Belgian law by Article 143, § 1, 12°, of the Banking Law, measures must in any case be taken if a parallel change in interest rates were to reduce the institution's economic value by more than 20 % of its regulatory capital.

The banks may adopt different strategies regarding future changes in interest rates. Interest rate risk analyses aim partly to capture sectoral movements in positioning in relation to the various possible movements of the yield curve, and partly to identify banks which have excessive open positions and are therefore vulnerable to a rise in interest rates or to persistently low interest rates.

Effect of a parallel 200-basis-point increase in the yield curve on the economic value of equity

(data on a consolidated basis, in % of the regulatory capital)



Source: NBB.

Note: The projections are obtained from the Belgian banks' periodic reporting to the Bank in which they estimate the economic value of equity according to various scenarios defined on the basis of their internal models, taking account of certain assumptions supplied by the Bank. Pursuant to the Bank's circular on the interest rate risk associated with activities other than trading, adopted at the end of 2015, certain changes were made to the calculation assumptions in reporting from March 2016 onwards.

Funding and liquidity

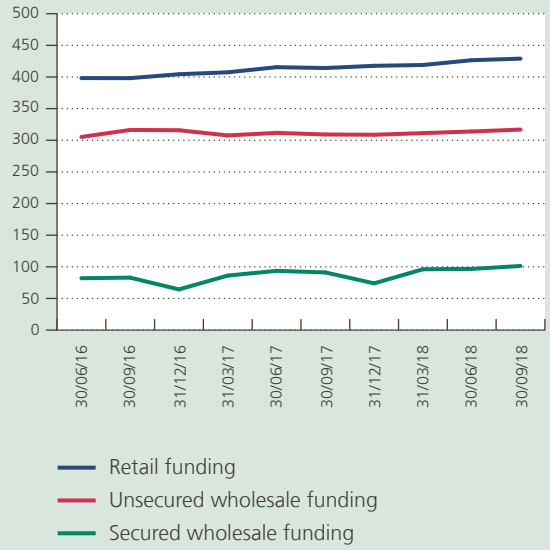
The Bank regularly reviews the funding and liquidity of Belgian credit institutions. That review takes place annually, but the timetable and frequency may be modified during a liquidity crisis. The review of funding and liquidity is structured so as to provide information on the banks' solvency indicators (such as credit risk spreads or ratings), information on the composition of the banks' funding, and information on the banks' short-term resilience to liquidity shocks. However, the review is conducted flexibly in order to address topical subjects, too, which could potentially affect the banks' liquidity.

As shown by the funding and liquidity review conducted at the end of 2018, the aggregate data on all Belgian credit institutions reveal that the composition of their funding has remained relatively stable over the past two years. Retail deposits have risen by almost 8 %, constituting a stable funding source.

Unsecured wholesale funding of financial and non-financial counterparties has remained unchanged, while secured wholesale funding has risen by 22 %, starting from a lower base. This increase is due mainly to funds obtained under the targeted longer-term refinancing operations (TLTROs) and covered bonds.

Belgian banks' funding sources

(in € billion)



Source: NBB.

The stability of the composition of the assets and funding of Belgian credit institutions is also reflected in the regulatory liquidity ratios. While the short-term liquidity coverage ratio (LCR) requires a bank to hold sufficient liquid assets to withstand a liquidity stress scenario for one month, the net stable funding ratio (NSFR) requires a bank to have sufficient long-term funding to finance illiquid assets.

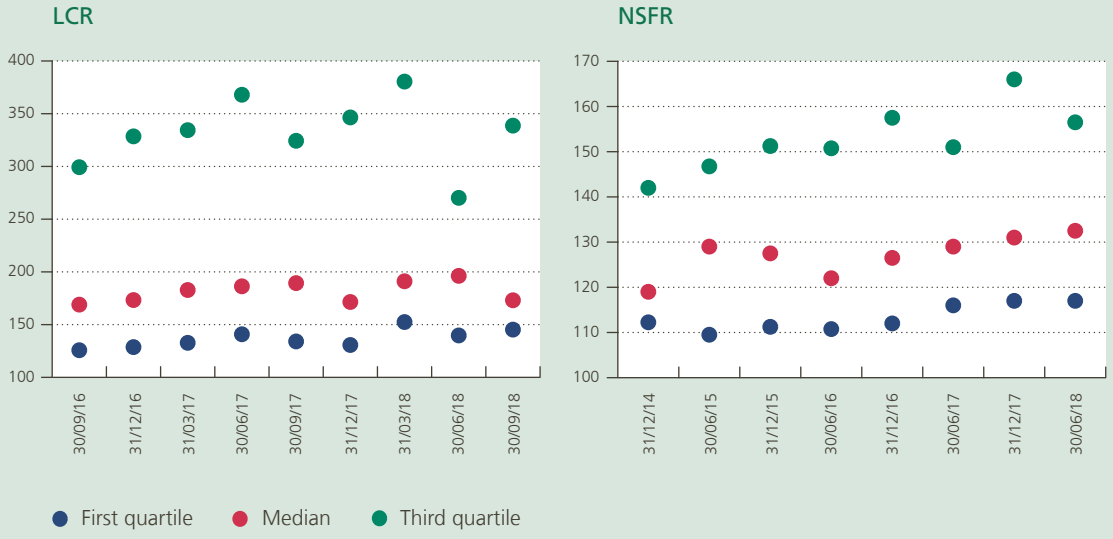
The NSFR is not yet a minimum regulatory requirement, but it is reported to the supervisory authorities by the SIs. The whole sample of Belgian credit institutions already has an NSFR of over 100 %, and the situation has been generally stable over the past two years.

The LCR has been a minimum regulatory requirement since October 2015 and has been fully in force (minimum requirement of 100 %) since January 2018. Belgian credit institutions' LCR has also remained above 100 %. This ratio is more volatile than the NSFR owing to its short-term nature.

The 2018 review of funding and liquidity also included a liquidity crisis simulation for all Belgian credit institutions, identifying sources of pressure on liquidity which are not reflected in the LCR or the NSFR. Liquidity stress tests are becoming a standard tool in the supervisory toolbox. The SSM will also subject all SIs to a detailed liquidity stress test in 2019.

Points for attention in forthcoming reviews of funding and liquidity are the impact of the expected normalisation of central bank policy on the holding of liquid assets and funding choices, and the replacement of financing via the TLTROs expiring in June 2020.

Trend in the LCRs and NSFRs of Belgian banks



Source: NBB.

Horizontal analysis of the Belgian banks' financial plans

In 2018, the Bank continued the horizontal analysis of the leading Belgian credit institutions' strategic and financial plans. The aim of the analysis is to proactively indentify significant trends in profitability, the underlying activities and potential systemic risks in the Belgian banking sector.

Previous analyses have revealed substantial and growing pressure on Belgian banks' profitability, owing to a range of factors, including low interest rates and keen competition. Analysis of the 2018 financial plans shows that this pressure is not diminishing. On the main credit markets, the banks foresee relatively strong average volume growth over the term of the financial plans, against the backdrop of declining margins. The plans show that interest income should pick up a little compared to previous forecasts, partly as a result of the upward trend in yield curves at the start of the period under review.

This raises the question whether the strong average credit expansion over the planning period – at a pace slightly exceeding that of previous years – is a realistic starting point, taking account of developments in the monetary and economic context (see box 11 in the Report 2017).

Another striking characteristic is the constant reduction in the average new loan loss provisions. This reduction in new provisions year after year is generally justified by the historically low level of the

loan provisions realised. However, this tendency, whereby credit institutions adjust their expected loss provisions according to current observations, does imply risks. In these circumstances, a change in the economic environment could rapidly exert pressure on profitability.

In a competitive environment with profitability under stress, sound and well-reasoned forward planning of the institutions' activities (including pricing) and *ex-ante* identification and close monitoring of the resulting risks within their overall balance sheet are essential to ensure their sustainability. Specific, good quality strategic, financial and corporate management plans are crucial for this prospective steering. The assumptions must be realistic, so that potential problems concerning the business model, profitability and the emergence of risks are identified, recognised and addressed as quickly as possible.

2. Prudential policy aspects

2.1 SSM and EU measures concerning non-performing loans

The year 2018 brought new European initiatives aimed at addressing the persistently high level of non-performing loans in certain European countries and avoiding a further accumulation of such loans. This work was conducted partly by the ECB, under the SSM, and by the European Commission. The measures taken should enable institutions to concentrate once again on their core business of lending to the real economy and strengthen the resilience of the banking system as a whole.

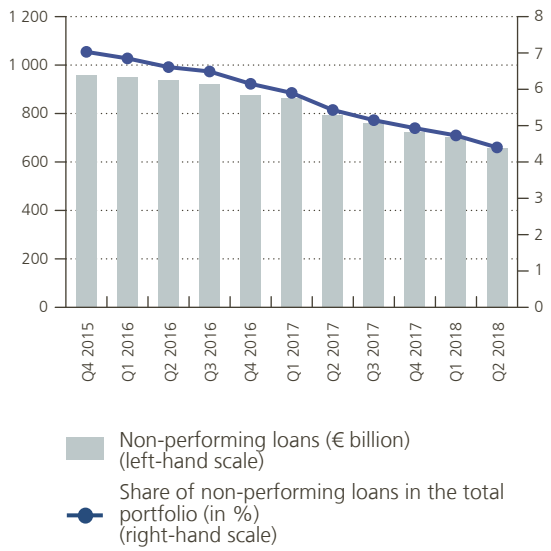
The SSM and the European Commission took new initiatives to address the persistently high level of non-performing loans in certain countries

In March 2018, the SSM published an addendum to the 2017 guidance to banks on non-performing loans, spelling out the prudential expectations relating to the prudential provisioning of those loans. The 2017 guidance asks credit institutions to define credible strategies for dealing with their portfolio of defaulting loans, specifying quantitative targets for each portfolio and measures which need to be implemented from both an organisational and a financial point of view. The addendum adopted by the SSM aims to prevent the accumulation of new non-performing loans in the banking system, by pre-defining a target for gradually increasing coverage over time (calendar approach), which should lead to full prudential provisioning after a certain number of years. Under its SREP approach, the SSM may decide on specific prudential measures if an institution deviates from that target without justification.

In July 2018, this addendum was supplemented by the SSM's announcement of further steps in its prudential

Chart 101

Ratio of non-performing loans of significant credit institutions in the euro area



Source: ECB.

treatment of the stock of existing non-performing loans. The SSM intends to achieve a credible reduction in the stock of such loans by defining prudential expectations specific to each institution regarding prudential provisioning. The aim is to achieve the same coverage of the stock and flow of non-performing loans over the medium term. These specific expectations are stated for each institution and are determined according to the share of non-performing loans in its total loan portfolio and its own financial characteristics, while ensuring consistency between comparable institutions.

The European Commission likewise proposed a gradual coverage approach for non-performing loans, pursuant to its mandate derived from the conclusions of the July 2017 European Council. In contrast to the SSM's approach, which advocates a target for coverage by provisions, this measure envisages a minimum compulsory level of coverage for non-performing loans by capital or provisions, applied uniformly to all credit institutions. This obligation will apply only to new loans granted by credit institutions. At the end of 2018, this proposal was still being discussed.

In 2018, the SSM continued its measures to reduce the level of non-performing loans. In particular, it made sure that credit institutions with a high level of non-performing loans actually implement ambitious strategies to reduce those loans. Among other things, that took the form of sales of non-performing loan portfolios, renegotiation or the establishment of more efficient recovery procedures. Thus, under pressure from the prudential authorities and given the improvement in the economic environment, there was a marked acceleration in the reduction of the ratio of non-performing loans in the euro area, as the share of these loans in the loan portfolios of SIs, subject to direct SSM supervision, dropped from 7 % at the end of 2015 to 4.4 % at the end of June 2018. The average rate of provisioning for these loans stood at 46 % at the end of June 2018.

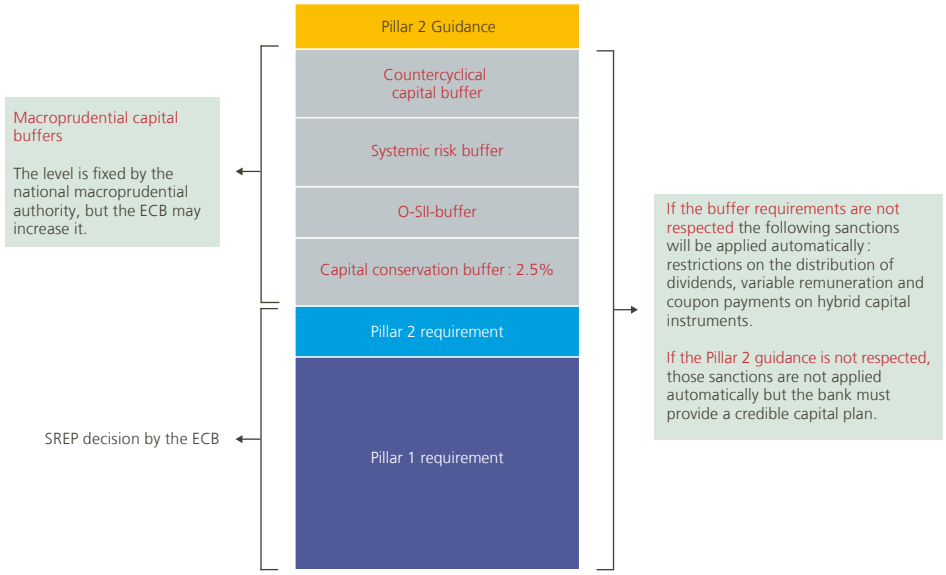
2.2 SREP methodology and results

In 2018, the banks subject to direct SSM supervision (SIs) underwent a new SREP[1] on the basis of the methodology drawn up in 2015 and the adjustments made in 2016. A complete harmonised stress test exercise was also carried out in 2018 (see box 13)

1 Annual exercise to assess the risks and quantify the capital and liquidity needed (Supervisory Review and Evaluation Process – SREP).

Chart 102

Structure of the capital requirements in terms of CET 1



Source : NBB.

taking account of the situation of credit institutions at the end of 2017. The SSM incorporated the results of that exercise in its SREP decisions when fixing an additional target, known as Pillar 2 guidance[1], for CET1 capital. The Pillar 2 guidance was determined in order to ensure that in a severe crisis the CET1 ratio remains above 5.5 % of the risk-weighted assets and the amount of the systemic capital buffer for banks classed as global systemically important groups as defined by the FSB.

Although there was no change in 2018 to the SSM methodology for quantifying the requirements under Pillar 2 or the Pillar 2 guidance, in July 2018 the EBA published a revision of its guidelines on the common procedures and methodologies for the SREP, particularly as regards taking account of the stress test results when determining the Pillar 2 guidance. That revision will imply two methodological changes which the ECB should incorporate in the 2019 SREP, whose decisions will apply in 2020. First, when determining the Pillar 2 guidance, the reduction in CET1 capital resulting from the adverse scenario in the stress test can no longer be offset by capital buffers for systemic risk. The latter are intended to cover macroeconomic risks, and not bank-specific microeconomic risks which come under the Pillar 2 requirements and the Pillar 2 guidance. Second, the Pillar 2 guidance will no longer apply only to the CET1 requirement but also to the total capital requirement. These two changes should imply, *ceteris paribus*, an increase in demand for both CET1 capital and total capital from 2020: the banks need to be prepared for that.

On 9 November 2018, the ECB also published a new version of the guides on expectations regarding the quality of the internal capital and liquidity adequacy assessment processes (ICAAPs and ILAAPs). These guides, which have been used to assess ICAAPs and ILAAPs since 1 January 2019, are meant to help credit institutions to improve their practices in this regard. The SSM expects institutions to ensure that the risks which they face are accurately assessed in accordance with a prospective approach, so that all significant risks are identified, properly managed, and covered by an adequate level of capital and liquidity.

These guides should also help to reduce differences in the approaches adopted by institutions and thus ultimately strengthen the role of the ICAAPs and ILAAPs in the SREP. In this context, the SSM is continuing to draw up a methodology for determining the capital requirements under Pillar 2 on the basis of a more granular assessment of the various risks. That work should enrich the holistic approach currently used and improve transparency concerning the nature of the factors taken into account by the SSM – notably the level of the risks, the business models, and the quality of the organisation and governance – in determining the capital requirements under Pillar 2.

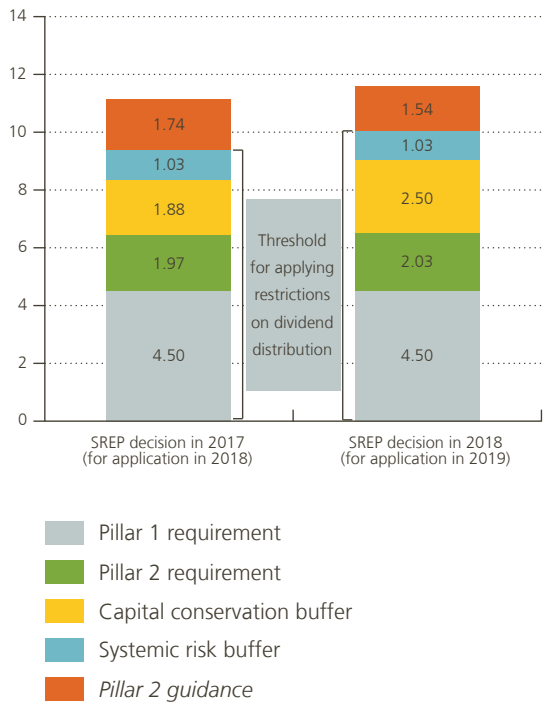
In 2018, the average level of Pillar 2 requirements for the SIs came to 2.1 % of the risk-weighted assets, compared to 2.0 % in 2017. However, the CET1 ratio threshold

1 Unlike the Pillar 2 requirement, the Pillar 2 guidance is fixed in addition to the amount of CET1 necessary to cover the capital buffer requirements. Failure to meet that target does not trigger automatic prudential measures such as restrictions on payment of dividends, variable remuneration or coupons on AT1 instruments, applicable in the event of failure to comply with the capital buffer requirements. If a bank does not respect the Pillar 2 guidance, it must inform the supervisory authority, and the SSM may take prudential measures, with due regard for the specific circumstances.

Chart 103

Level and structure of the CET1 capital requirements for Belgian banks

(in %)



Sources: ECB, NBB.

(maximum distributable amount trigger, MDA trigger) automatically triggering prudential measures was increased further as a result of the continued phasing-in of capital conservation and systemic risk buffers.

Thus, for Belgian banks subject to SSM supervision, the average MDA trigger increased from 9.38 % to 10.06 %, while the Pillar 2 requirements remained more or less stable, at 2.03 % in 2018 compared to 1.97 % in 2017. The total CET1 capital requirement of Belgian banks increased from 11.11 % to 11.61 %, up by slightly less than the MDA trigger, reflecting the small reduction in the Pillar 2 guidance, from 1.74 % to 1.54 %, to offset the increase in the capital conservation and systemic risk buffers.

For LSIs, the Bank conducted a similar SREP exercise in accordance with a methodology aligned with the harmonised methodology developed for the SSM in 2018.

For LSIs, the method of calculating the second pillar requirement therefore changed slightly, but is still based on the scores attributed under the SREP exercise to the various risk categories, such as interest rate risk and operational risk.

A new aspect of the methodology is the possibility of formulating Pillar 2 guidance on the basis of the stress test for LSIs (see box 13). The level of this guidance is calculated in the same way as for SIs, but the stress test in this case is conducted by the Bank. In addition, for LSIs no minimum is used for the guidance, which means that if the Pillar 2 requirement is high enough to meet the stress test requirements, no additional Pillar 2 guidance is requested.

During the year under review, a complete prudential supervision and assessment process was only conducted for top priority LSIs; in their case, it always gave rise to a new second pillar requirement. A stress test was likewise conducted for these same institutions but did not lead to Pillar 2 guidance being drawn up for any of the institutions concerned. In general, the new methodology has not led to any significant change in the capital requirements.

BOX 13

2018 stress tests by the EBA and the Bank

EBA's 2018 stress test for significant institutions

In 2018, as in 2014 and 2016, the EBA coordinated a stress test in which 48 large European banks took part, 33 of them being established in SSM Member States and subject to the direct supervision of the ECB. Two of these institutions are located in Belgium: Belfius Bank and KBC Group[1].

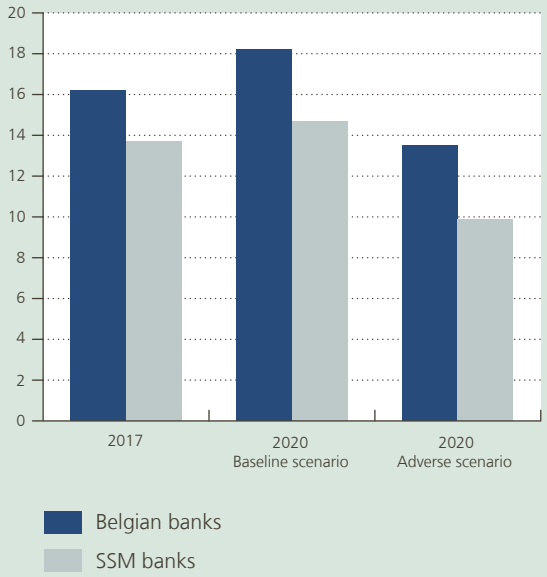
Like the previous ones, the 2018 exercise aimed to provide the supervisory authorities, banks and market players with a common analytical framework enabling them to compare and assess the ability of the large banks and the EU banking system to withstand adverse economic shocks. The stress test comprised a baseline scenario and an adverse scenario, both with a three-year horizon (2018-2020). The assumptions for the macroeconomic variables in the baseline scenario conformed to the December 2017 forecasts published by the ECB. The adverse scenario, designed by the ECB and the ESRB, was a hypothetical scenario reflecting the systemic risks considered to represent the most serious threats to the stability of the European Union banking sector at the start of the exercise,

1 ING Belgium and BNP Paribas Fortis, subsidiaries of foreign banking groups, took part in the stress test through their parent company. Their results are therefore not consolidated in the Belgian average presented in the chart in this box.

in January 2018. As the adverse stress test scenario was hypothetical, its estimated impact should not be regarded as a forecast of the banks' profitability. Moreover, the results take no account of any response to the shocks by the banks, as the test is based on the assumption of a static balance sheet. Nonetheless, the stress test results can serve as a useful analysis tool for assessing the resilience of the banks' balance sheets to the specific shocks considered.

Like the EU-wide stress test conducted in 2016, the 2018 stress test did not comprise any pass or fail threshold for the projected tier 1 capital ratio (CET1 ratio) in the adverse scenario. Instead, it was designed as a key contribution to the Supervisory Review and Evaluation Process (SREP), where mitigating management measures and the potential balance sheet dynamics may also be taken into account, primarily in order to establish Pillar 2 guidance (see section D.2.2).

Average CET 1 ratio



Sources: ECB, NBB.

The above chart compares the average CET1 ratio of the Belgian banks (Belfius and KBC) and the SSM banks at the beginning and end of the stress test horizon in the baseline scenario and in the adverse scenario.

The Belgian banks were in a better starting position compared to the sample of large SSM banks which took part in the stress test. At the beginning of the period considered, their CET 1 ratio averaged 16.2 %, contrasting favourably with the average starting value of 13.7 % for the CET 1 ratio of the sample of SSM banks.

Belgian banks also performed well in the 2018 stress test compared to other euro area banks. In the baseline scenario, the CET1 ratio for Belgian banks was up by an average of 2 percentage points between 2017 and 2020, while that of the SSM banks went up by 1 percentage point, on average, over the same period. These two increases are largely due to the favourable macroeconomic and financial forecasts published by the ECB for Belgium and the euro area, and a number of EBA methodological assumptions.

In the adverse scenario, the Belgian banks also did better than the SSM banks, as the reduction in the CET1 ratio between 2017 and 2020 averaged 2.7 percentage points for the Belgian banks and 3.9 percentage points for the SSM banks. In both cases, the sharp fall in the CET1 ratios was due to the very severe recession simulated by the ECB and the ESRB, which – for Belgium and the euro area – led among other things to a substantial contraction in GDP, a steep rise in unemployment, a marked fall in property prices and a rise in interest rates accompanied by widening spreads.

Taking account of their higher initial CET1 ratio and the smaller decline in that ratio in the adverse scenario, the CET1 ratio projected at the end of 2020 for the Belgian banks in the adverse scenario therefore averaged 13.5 %, well above the average CET1 ratio of 9.9 % for SSM banks.

The better starting position of the Belgian banks and their performance in the 2018 stress test are at least partly a reflection of the continuous adjustment efforts that those banks have been making since the crisis, including the strengthening of their capital, their debt reduction and the decline in the volume of legacy assets.

Overall, the results of the two largest Belgian banks which participated directly in the 2018 stress test show the steady improvement in their resilience. That is a welcome development in an environment which nonetheless remains challenging for the profitability of European banks.

The Bank's 2018 stress test for less significant institutions

In 2018, the Bank also conducted a stress test on the three main LSIs which are subject to its supervision. Since this exercise took place at the same time as the EBA stress test for SIs, both the baseline scenario and the adverse scenario were tuned to those of the EBA test. The methodology used is likewise based on that for the EBA stress test, although a number of simplifications were introduced.

The desired proportionality for this stress test was similarly ensured by asking the LSIs to supply only additional information on their starting position in December 2017. The projections for 2018-2020 were produced by the Bank, in contrast to the EBA stress test in which the SIs themselves take responsibility for the projections.

The stress test results were not published but were discussed with the LSIs and helped to determine the Pillar 2 guidance under the SREP.

3. Regulatory aspects

During the year under review, the main developments concerning banking regulation took place in the European Union, where work on strengthening the Banking Union and the Capital Markets Union continued at a steady pace. At global level, following the conclusion of the Basel III agreement finalised at the end of 2017, the Basel Committee on Banking Supervision's work focused more on the implementation and assessment of the Basel III reforms and on scope for regulatory arbitrage. At Belgian level, the Bank published a new Circular and updated its manual on governance.

3.1 International regulations

3.1.1 Strengthening of the banking union and the capital markets union

Completion of the Banking Union and further work on the Capital Markets Union in the EU continued to determine the supervisory authorities' programme in 2018. As regards completion of the Banking Union, new steps were taken to reduce the banking risks by the progress of the negotiations on a package of changes to the European banking legislation (CRR 2/CRD V/BRRD 2) and by the measures described above aimed at reducing the banks' non-performing loans, notably by the compulsory formation of provisions for those loans. This banking risk reduction is a precondition for concluding other European agreements on sharing the burden between Member States in the event of materialisation of these risks (risk-sharing). That sharing would require the establishment of the third pillar of the Banking Union, namely a European Deposit Insurance scheme (EDIS) and adequate funding for the Single Resolution Fund. Apart from the completion of the Banking Union, other measures were taken in 2018 to establish the Capital Markets Union, intended to create deeper and better integrated capital markets in the European Union. Work on the adoption of specific prudential rules for European investment firms and for various types of securitisation instruments are the principal elements.

Banking risk reduction is a pre-condition for concluding European agreements on sharing the burden between Member States in the event of materialisation of these risks (risk-sharing)

The sections below deal with these topics in more detail. In this context, box 14 describes the progress achieved in the negotiations on adjustments to the banking regulations (CRR, CRD and BRRD).

European Deposit Insurance Scheme (EDIS)

One of the principal elements of the completion of the banking union concerns the switch to a European Deposit Insurance Scheme (EDIS). EDIS would be a key step towards strengthening financial stability in the euro area, by further boosting confidence in the stability of bank deposits, wherever they are located in the euro area, and severing the link between banking problems and the financial situation of the Member States concerned.

Under the initial 2015 proposal for creating EDIS, risk-sharing between the Member States would be phased in, and EDIS would be established in three automatic stages (reinsurance, coinsurance, full insurance) by 2024. Discussions in the European Parliament and the EU Council of Ministers revealed differences of opinion on that proposal. Some Member States want banks to become stronger before being ready to share the potential burden of bankruptcies in the Banking Union. Consequently, three years after the initial EDIS proposal was presented by the Commission, hardly any progress has been made.

To resolve the deadlock and facilitate political debate on EDIS, a European working group studied the continuing development of the scheme in 2018 and produced alternative proposals. Each option offers a different degree of mutual loss sharing, but first puts the emphasis on providing the essential liquidity for repaying (within 7 working days) the guaranteed deposits of a bank in difficulty. Moving on from the first stage – providing the necessary liquidity – to the second which concerns sharing the losses could be made subject to a range of conditions, such as targeted asset quality reviews and the level of the problem loans of banks whose deposits are protected by the system.

Backstop for the Single Resolution Fund

The European Resolution Fund provides adequate finance for the SRM, the second pillar of the Banking Union. From 2023 onwards, the Single Resolution

Fund (SRF) will have an intervention reserve amounting to 1 % of the deposits covered by guarantee systems of credit institutions in the Banking Union, equivalent to around € 55 billion. In certain crisis cases, and especially in the event of a crisis affecting a significant banking group or a systemic crisis, the SRF's resources are likely to be insufficient to enable it to fulfil its mission. That is why – back in 2013, even before the SRF was created – Ministers from the Eurogroup and the Ecofin Council indicated the need to develop a public safety net, called the "backstop". The use of that safety net is a last resort.

In its roadmap for deeper European Economic and Monetary Union, the European Commission proposed that the future European Monetary Fund should serve as a safety net for the SRF, either by providing it with guarantees or by granting it a liquidity line.

On that basis, on 4 December 2018, Finance Ministers meeting in the Ecofin Council agreed terms of reference governing the activation of a common safety net for the SRF. That common safety net is provided by intervention on the part of the European Stability Mechanism, which offers the SRF a renewable credit line the size of which is determined, during the transitional period, by the level of the SRF. This safety net covers all possible uses of the SRF, including liquidity support. The European Stability Mechanism enjoys preferential creditor status. This common safety net will be introduced by no later than the end of the transitional period, or earlier depending on the progress achieved in reducing risks.

Prudential regime for investment firms

Investment firms like Belgian stockbroking firms are now subject to European prudential regulation which had been intended more for credit institutions and is therefore less suited to the activities and risks specific to that sector. The European Commission therefore proposed a revision of the prudential framework for investment firms, in the context of the capital markets union. Under that proposal, the banking regulation (and SSM supervision) only applies to large investment firms of systemic importance, and there is a new, tailor-made regime for smaller investment firms, addressing the problems of the current regulatory framework (complexity, lack of risk sensitivity, and fragmentation). More specifically, the Commission proposes a prudential framework which is both simpler and more proportionate, as well as being more sensitive to the specific risks of investment firms and better suited to their business models.

The capital requirements for investment firms would be fixed according to a new approach, specifically designed for the commercial services and practices most likely to generate risks for investment firms, their customers and their counterparties. This approach establishes the capital requirements according to the scale, nature and complexity of the investment services offered and/or activities pursued. The minimum starting capital required for granting a licence, namely a quarter of the firm's fixed costs for the previous year, would be the minimum amount of capital required. Very small, non-complex investment firms would be subject to an even simpler regime for capital, corporate governance and reporting obligations.

The proposal makes provision for a five-year transitional period for investment firms before they have to apply the new requirements in full. Both the European Parliament and the EU Council of Ministers negotiated intensively on this proposal during 2018 with a view to speedy production of a final version.

Prudential regulation for various types of securitisation instruments

The creation of a European Capital Markets Union also anticipates the adjustment and harmonisation of the European regulations on various types of securitisation instruments. The new Regulation on securitisation, comprising a general framework plus a specific framework for simple, transparent and standardised securitisation (STS), was adopted in December 2017 and came into force on 1 January 2019[1]. In 2018, the EBA worked on various technical mandates and guidelines to render the regulations and the STS framework operational.

In March 2018, the European Commission published a proposal on a framework for covered bonds, comprising a Directive and a Regulation amending the CRR as regards exposures in the form of covered bonds. Negotiations are in progress at European level and a final agreement should be reached in 2019. The Directive's main aim is to introduce minimum standards and encourage the development of covered bond markets in the Member States where markets are

1 Regulation (EU) No. 2017/2402 of 12 December 2017.

under-developed or lack a legal framework. The minimum standards are linked to structural characteristics (such as eligibility of the assets as collateral and requirements concerning collateral) and public supervision.

Finally, during 2018, the European Commission also presented a proposal concerning sovereign bond-backed securities (SBBS). This is a specific legal framework for securitisation operations made by private or public entities and backed by a diversified set of euro area sovereign bonds. Thanks to the principle of priority/subordinate tranches of debt instruments and appropriate calibration, the top tranche could represent a low-risk European debt instrument.

Banks make a significant contribution to the direct financing of central governments by granting loans or buying government debt instruments for their own account. Liquid sovereign bonds also play a crucial role in the liquidity and balance sheet management of financial institutions. Thus, when there are higher financial risks for a national government, reflected in lower solvency and higher risk premiums, these exposures can damage banks' solvency and liquidity. In addition, banks tend to retain a larger share of the debt of their own national government, and that concentration heightens the risk of contagion, with the national government's problems affecting the local financial sector (sovereign-bank nexus). The SBBS proposal aims to alleviate that problem.

BOX 14

Reform of the European regulations (Risk reduction package)

The NBB's Report 2017 had already examined the proposals published by the European Commission with a view to amending the European banking legislation, namely the Capital Requirements Regulation (CRR), which is directly applicable, and the Capital Requirements Directive (CRD) and the Bank Recovery and Resolution Directive (BRRD), to be transposed into national law by the Member States. These proposals aim to introduce a number of key components of the Basel III package of additional regulatory requirements such as the leverage ratio, the net stable funding ratio (NSFR), new methods of calculating the capital requirements for counterparty risk and market risk, and the arrangements for introducing the TLAC requirement in the EU (see chapter C) for global systemically important institutions. This set of measures is therefore known as the risk reduction package.

In 2018, the European Parliament and the EU Council both determined their position on these proposals, and the negotiations between those two bodies and the European Commission, known as the "trilogue", began with a view to finalising the legislation. In the context of this debate, Belgium's key points for attention concerned the proposals for replacing the capital requirements, the liquidity requirements and the MREL requirements of local subsidiaries of foreign banks with parent company guarantees, the need to make European banks subject to adequate requirements concerning subordinated debt which could facilitate the resolution of a struggling bank, and maintenance of the effectiveness of the package of measures in reducing risks. Other points for attention in the debate included the need to adjust the Basel rules to specific European characteristics and the importance of proportionality in the application of the banking regulations to smaller and less complex institutions.

At the end of 2018, the European institutions reached agreement on the broad outline of the "Risk reduction package" which will undergo technical development with the aim of publishing final texts in the first half of 2019.

However, this proposal has been criticised by many EU Member States and by the financial sector, partly because the SBBSs are expected to have a negative impact on the liquidity and funding costs of the various national governments, and it is feared that – in the event of a crisis – buyers may not be found for the subordinate tranches. The Bank is prepared to continue the debate on the proposed instrument in the context of deepening the Capital Markets Union.

3.1.2 Work of the Basel Committee

After having concluded the Basel III agreement, the Basel Committee on Banking Supervision focused on the implementation and assessment of the Basel III reforms and on the measures to be taken concerning the scope for regulatory arbitrage. The implementation work concerns such matters as the organisation of regular quantitative studies of the impact of the introduction of the new standards. Box 15 briefly describes the results of the first impact study which took account of the finalised Basel III agreement. Regarding the scope for regulatory arbitrage, work is in progress for the adoption of measures aimed at curbing window dressing, i.e. temporary reductions in transaction volumes on the main financial markets around the reference dates, which have the effect of temporarily increasing on those dates the leverage ratios which the entities in question are required to report. The concerns raised by the heightened volatility on various segments of the money markets and derivatives markets

around the key reference dates were among the reasons prompting the Basel Committee to consider these measures. Finally, in 2018, the Committee agreed to step up the harmonisation of certain aspects of the minimum capital requirements for market risk. These market risk standards were published by the Basel Committee on Banking Supervision in January 2016, as part of the Basel III package, but recent adjustments are intended to address the problems identified by the Basel Committee in monitoring the implementation and impact of the new regulations. The adjustments include recalibration of certain parameters and a simplified approach for banks with lower market risks. All the components of the Basel III framework have thus been completed.

BOX 15

Impact of the Basel III reforms adopted in the wake of the crisis

The NBB's Report 2017 had already dealt with the finalisation of the Basel III reforms for the banking sector, adopted in the wake of the crisis. A final agreement on that subject had been concluded by the Basel Committee on Banking Supervision in December 2017.

That agreement provides for a significant change in the calculation of the risk-weighted assets, the denominator of the risk-based capital ratio. In particular, in the case of credit risk, this means a revision of the standardised approach and a reduction in the use of internal models for certain types

Overview of the results

(data at the end of 2017)

	Number of banks	Change in the Tier 1 MRC (in %)[1]	Combined capital shortfall (in € billion)		
			CET1	Tier 1	Total
Group 1 banks[2]	111	3.6	5.2	7.3	13.3
of which: G-SIBs	30	3.0	5.2	6.3	12.2
Group 2 banks[2]	95	5.9	1.0	0.8	0.7

Source: Basel Committee on Banking Supervision.

1 In % of the total basic MRC established according to the target level requirement, i.e. the combination of risk-based capital requirements and capital requirements based on the leverage ratio, plus the capital conservation buffer and, where applicable, the G-SIB buffer.

2 Group 1 = Banks operating internationally with Tier 1 capital > € 3 billion;
G-SIBs = Global Systemically Important Banks, as determined by the Financial Stability Board.
Group 2 = Other banks.

of assets. For other types of assets, internal models are subject to additional restrictions. For operational risk, internal models are abolished altogether. The last part of the finalised Basel III package is the so-called "output floor". It specifies that the total risk-weighted assets calculated by using internal models must not be less than 72.5 % of the risk-weighted assets calculated according to the standardised approach. The agreement provides for the introduction of these standards by 1 January 2022, the output floor being initially fixed at 50 % and gradually rising to 72.5 % by 2027.

Publication of the finalised "Basel III" package was accompanied by publication of the results of Quantitative Impact Studies (QIS). These studies show the change in the Minimum Required Capital (MRC) and any capital shortfalls caused by application of the finalised package.

The first QIS to be conducted on the basis of the published final text took place on the basis of data as at end of December 2017. The QIS revealed considerable regional variations. For instance, while the average increase in the minimum required capital is 3.6 %, it is 20.2 % for European banks in Group 1[1] and, on average, minimum required capital is actually lower for banks in America and in the rest of the world. The result for Europe tallies with the parallel impact study by the EBA. For a sample of 38 Group 1 banks in the EU, that study reported an impact of 18.7 %.

The significant discrepancy between regions is not due to differences in business models, as the analysis shows, for example, that there is no correlation between the relative size of a bank's mortgage portfolio and the impact of Basel III, but instead is due more to the prudential framework currently applicable in those regions. While the Basel standard sets minimum required capital for the first Pillar, members are still free to impose stricter rules themselves (what is known as "super equivalence"). There are also variations between regions in the level of Pillar 2 capital requirements which are additional to the Pillar 1 capital requirements and are not taken into account in this QIS.

1 The Basel Committee divides its members into three regions: Europe (EU Member States, Russia, Turkey, Switzerland), America (North, Central and South American members) and the rest of the world (Asia, Oceania and South Africa).

The impact also varies within the European Union and in Belgium. At EU level, the relatively high impact is distorted to some degree by the results for a few large banks. It should also be noted that the calculation of that impact does not take into account certain EU prudential specificities, even where the EU now already deviates from the Basel standards currently in force. In addition, the finalised Basel III package offers certain options for the supervisory authorities which are not currently taken into account in calculating the impact.

For Belgian banks, the average impact is less than the average for the EU. The Belgian banking sector would not experience any capital shortfall following the introduction of Basel III; consequently, the impact seems to be manageable for the Belgian banks, especially taking account of the sufficiently long transitional period.

The EBA is currently working jointly with the SSM and the national supervisory authorities on a new impact study in connection with the Call for Advice addressed to it by the European Commission on the implementation of the Basel III package in the EU. That study will provide a still more detailed picture of the impact of Basel III, taking account of the specific context of the EU.

3.2 Reporting, accounting and governance

On 26 September 2017, the EBA published new guidelines on internal governance[1]. The new guidelines put more emphasis on the tasks and responsibilities of the statutory management body, notably as regards its supervisory function. They also provide details on the composition and role of advisory committees formed within the statutory management body. In the aftermath of the Panama Papers, it also reinforced the guidelines on the use of complex structures and the relationship to be maintained with those structures. In addition, issues such as the risk culture, rules of conduct, and the management of conflicts of interest were developed and the guidelines now fully reflect the "three lines of defence" model. The new EBA guidelines were transposed into the Belgian prudential framework by a Circular on internal governance[2] and – specifically for the credit institutions sector – by updating of the banking sector governance manual.

For instance, the manual takes account of the principle of proportionality and the proportionality criteria proposed in the EBA guidelines. The new guidelines on operations with offshore centres and complex structures were also explicitly included in the manual: the EBA guidelines now stipulate that the use of these structures and centres should be avoided in the first place. If an institution were nevertheless to set up complex structures or activities, the statutory management body must understand them and their purpose, and the specific risks associated with them, and ensure that the internal control functions are appropriately involved.

As regards the policy on conflicts of interest, the EBA guidelines stress in particular that institutions must establish adequate procedures for transactions between related parties, and that members of the statutory management body are also required to abstain from voting on matters where they have, or could have, a potential conflict of interest, or if their objectivity would be compromised.

On the subject of the composition of the board's main advisory committees, the EBA guidelines require these committees to comprise a majority of independent directors and to be chaired by an independent member. Where these requirements go further than the requirements of the Banking Law or any other applicable legislation, the manual and the Circular specify that these guidelines should be regarded as recommended good practice which, as stipulated by Article 21, § 1, 1°, of the Banking Law, may be taken into account in the overall assessment of the organisation and functioning of the institution's governance arrangements.

1 EBA/GL/2017/11 Guidelines of 26 September 2017 on internal governance. These guidelines came into force on 30 June 2018 and replace the EBA GL 44 Guidelines of 27 September 2011.

2 Circular NBB_2018_28 of 23 October 2018 – EBA Guidelines of 26 September 2017 on internal governance (EBA/GL/2017/11).

E. Insurance undertakings

During the year under review, the Bank continued to exercise closer supervision over insurance undertakings with the highest risk profile, within the framework of its ongoing (off-site) supervision. In some cases, the Bank imposed measures which occasionally led to cessation of all or part of an undertaking's business. The Bank's operational supervision over insurance undertakings also focused in particular on the adequacy of the "best estimate" of technical provisions in the life insurance portfolios. The quarterly reports which undertakings submitted to the Bank also formed the subject of a transversal analysis. Finally, particular attention focused on applications made to the Bank in connection with Brexit, the supplementary individual health insurance market, ORSA assessments and the accredited auditor's duty of cooperation.

Inspection missions (on-site) concerned such matters as pricing in the "industrial accidents" branch and the independent audit functions. Various applications concerning internal models were approved and monitored, and benchmarking work continued.

Furthermore, the legal framework for insurance and reinsurance undertakings was supplemented. Work focused in particular on revision of the standard Solvency II formula and the long-term guarantee measures, and on preparations for the entry into force of IFRS 17. Also, a new Bank Communication clarified the regulatory framework concerning governance. New field tests were also conducted with a view to devising a common prudential framework for international insurance groups, and stress tests were conducted jointly with EIOPA. Finally, work on prudential reporting concerned the introduction of new validation tests and simplification of some types of report.

1. Mapping of the sector and supervision priorities

1.1 Insurance undertakings

At the end of 2018, the Bank exercised supervision over 82 insurers, reinsurers, surety companies and regional public transport companies which insure their fleet of vehicles themselves. On the one hand, the steady decline in the number of supervised undertakings evident in previous years continued, owing to a degree of consolidation in the sector. On the other hand, a new trend emerged in the year under review, with new players coming under the Bank's supervision because of Brexit. Of all the undertakings subject to the Bank's supervision, only two are reinsurance undertakings in the strict sense [1].

New players came under the Bank's supervision because of Brexit

1 The number of reinsurers subject to supervision increased considerably in 2017 owing to a technical adjustment to the regulatory framework. As a result of the entry into force of the new prudential supervision regime, direct insurers which also engaged in reinsurance activities before 2016 were recorded as reinsurers.

Table 22

Number of institutions subject to supervision [1]

(end-of-period data)

	2014	2015	2016	2017	2018
Active insurance undertakings	80	75	72	67	67
Insurance undertakings in run-off	4	3	2	2	1
Reinsurance undertakings	1	1	1	29	31
of which: undertakings also operating as insurers	–	–	–	28	29
Other [2]	12	12	12	12	12
Total [3]	97	91	87	82	82

Source: NBB.

1 At the end of 2018, the Bank also exercised prudential supervision over nine branches of undertakings governed by the law of another EEA member country, but that prudential supervision was confined to verifying compliance with the money-laundering legislation.

2 Surety companies and regional public transport companies.

3 For 2017 and 2018, the total only takes account once of undertakings active as both insurers and reinsurers.

1.2 Insurance groups

At the end of 2018, 11 Belgian insurance groups were subject to the Bank's supervision, the same number as in 2017. Seven of those groups only have holdings in Belgian insurance undertakings (national groups), while four groups have holdings in at least one foreign insurance undertaking (international groups). In that respect, too, the situation is the same as at the end of 2017. Under Solvency II, the Bank is the group supervisory authority for each of those groups, and in that capacity, it receives specific reports which form the basis of prudential supervision at group level.

Table 23

Belgian insurance groups subject to the Bank's supervision

Belgian national groups	Belgian international groups
Belfius Assurances	Ageas SA/NV
Cigna Elmwood Holdings	Navigators Holdings (Europe)
Credimo Holding	KBC Assurances
Fédérale Assurance	PSH
Groupe Patronale	
Securex	
Vitrufin	

Source: NBB (situation at the end of 2018).

Table 24

Colleges for insurance undertakings subject to the Bank's supervision

The Bank is the group supervisory authority	The Bank is one of the supervisory authorities involved	
Ageas SA/NV KBC Assurances Navigators Holdings (Europe) PSH	Allianz	Allianz Benelux Euler Hermes
	AXA	AXA Belgium Inter Partner Assistance Touring Assurances
	Assurances du Crédit Mutuel	Partners Assurances
	Generali	Generali Belgium Europ Assistance Belgium
	Munich Re	D.A.S. DKV Belgium Ergo Insurance
	NN	NN Insurance Belgium
	Baloise Group	Baloise Belgium Euromex

Source: NBB (situation at the end of 2018).

The supervisory authorities of cross-border groups facilitate group supervision by working together in colleges of supervisors. These colleges ensure that the collaboration, exchange of information, and mutual consultation between the supervisory authorities of the EEA member countries actually takes place in order to promote decision-making and the convergence of supervisory activities. The establishment and operation of the colleges are based on coordination arrangements between the supervisory authorities concerned, for which the principles are laid down in the legislation.

1.3 Supervision priorities and operational aspects

1.3.1 Ongoing supervision (*off-site*)

During the period under review, the Bank continued to step up its supervision of undertakings with the highest risk profile. In parallel with the initiatives taken by the undertakings themselves, the Bank imposed measures which, in some cases, led to cessation of some or all of the undertaking's activities.

The new prudential rules (Solvency II framework) continued to make their mark on the supervision of insurance undertakings. Insurers made substantial progress in the correct application of the new rules. Reporting quality remains a point for attention, although further improvements were apparent during the period under review.

The transversal analyses conducted in 2017 were followed up in 2018 and new analyses were initiated.

Brexit

For insurers and reinsurers with their registered office in the United Kingdom, Brexit may have significant implications. With that in mind, a number of British insurers and reinsurers have set up companies, including some under Belgian law, from which to manage and develop their

Prudential supervision over the new undertakings formed in the context of Brexit will present a major challenge for the Bank

European activities. The Bank dealt with four cases of this type during the year under review. It involved close consultation with the undertakings concerned in order to gain an understanding of the activities and plans of their Belgian companies. These cases have now been dealt with, but the prudential supervision of these new Belgian insurers and reinsurers will present a major challenge for the Bank in the future. At the time this Report went to press, some companies were still considering setting up a subsidiary in Belgium on account of Brexit.

Best estimate of the technical provisions for the life insurance portfolio

The analysis of the impact of profit-sharing on the best estimate of the technical provisions for life insurance continued during the year under review. Particular attention focused on how a sudden interest rate rise would affect profit sharing. The insurers surveyed had to state the estimated likelihood of their products being surrendered in the event of such an interest rate rise. In some cases, policy-holders may in fact secure a financial gain from surrendering their contract, despite the associated costs, but in other cases, insurers are well protected against such behaviour, in particular by the tax penalty associated with the surrender of certain contracts. The Bank also gained a better understanding of the link between a possible interest rate rise, the profit shares that insurers may pay, and the expectations of the policy-holders in that respect.

Cost projections in the best estimate

During the year under review, the Bank completed the horizontal analysis of the cost modelling in the technical provisions (for seven insurers). The analysis resulted in a Communication[1] which, alongside the analysis conclusions, also clarifies the existing regulations; this should lead to uniform application of the regulatory provisions.

The horizontal analysis showed that the ways in which insurers allocate and project the costs when calculating the best estimate differ in twelve significant respects, and that they often do not comply with all the regulatory provisions. The main quantifiable finding is that there are gaps and differences in practice on the following five aspects: the overhead expenses attributed to acquisition costs; the adjustments for non-recurring costs; the adjustments concerning contract boundaries established according to Solvency II; the need to coordinate cost-related cash flows with those of the underlying claims in the projections, and the explicit modelling of fixed costs. The Bank analysed the firms' action plans and informed them of its observations in cases where the plans did not entirely conform to its recommendations.

Horizontal analysis of non-occupational health insurance

In order to analyse the fair competition conditions in regard to supplementary individual health insurance, the Bank conducted a horizontal analysis of the Belgian market. The study showed that the profitability of the products depends on their characteristics. On the basis of the product characteristics, it is possible to estimate the risk that the future profitability of the portfolio will deteriorate if the medical index does not adequately reflect the trend in claims paid out.

The best estimate seems extremely sensitive to the assumptions concerning future claims inflation and future premium indexation. In order to ensure fair competition conditions, firms were asked, when calculating the best estimate and setting its parameters, to conduct a number of sensitivity analyses which will permit identification of the points mentioned above.

The sensitivity analyses will make it possible to assess the best estimates notified by the firms and, if necessary, to impose corrective measures.

Analysis of periodic reporting

During the year under review, the Bank received, for the second time, annual reports produced in accordance with the new prudential regime, and conducted transversal plausibility checks on them, covering key elements of the firms' financial situation.

The Bank is totally committed to establishing a set of instruments enabling more detailed analysis of the data. The emphasis here will be on key factors in the financial health of firms. The Bank will

1 Communication NBB_2017_32 on the results of the horizontal analysis of the costs used in valuing the technical provisions.

accord priority to monitoring the technical provisions, the quality of the capital requirement calculations and the nature of the firms' asset portfolios.

Insurers with a low solvency ratio were a priority for analysis in 2018. The solvency calculations are based on a multitude of technical specifications and require proper interpretation of the regulations in order to guarantee correct application. In addition, correct calculation of the parameters used is essential in order to ensure the quality of solvency reporting. The analysis includes a detailed examination of the valuations in the balance sheet, and calculation of the required and available capital. This exercise is conducted by applying the principle of proportionality.

In 2017, firms had, for the first time, submitted a Regular Supervisory Report (RSR) to the Bank. This document is intended for the Bank for supervisory purposes, and its content is not made public. The descriptive report, supplemented by predefined quantitative reporting templates, contains both qualitative and quantitative information. It forms part of the information which is mandatory for supervision purposes. The information obtained from the RSR is used to establish the firm's overall risk profile. This information is examined alongside the information obtained from the Own Risk and Solvency Assessment (ORSA)[1], the Solvency and Financial Condition Report (SFCR), and the governance memorandum. The RSR could be a useful instrument for the supervisory authority in that it enables accurate interpretation of the large volume of figures submitted in the regular reports. Meetings have been held with large firms on the consistency of the various documents mentioned above, and on points which the Bank wished to examine more closely during the year under review. The discussions continued in 2018 for large firms on the basis of the information available on the prudent person principle, the EPIFP[2] (expected profit in future premiums), and the effects of the risk attenuation concerning reinsurance and derivatives. The intention is to give the firms feedback on the Bank's expectations concerning these points.

ORSA

In addition, detailed appraisals of the 20 guidelines relating to the ORSA and 17 good practices concerning stress tests, sensitivity analysis and scenario analysis, included in a Bank Circular[3], were conducted for the main insurance groups in 2018. Their appraisal and the main findings of the risk assessment were discussed with the firms.

Accredited auditor's duty of cooperation

In accordance with their duty of cooperation, accredited auditors explained their approach to the best estimate at a workshop. In connection with the expectations concerning their duty to cooperate in prudential supervision, the auditors drew up a detailed report for the first time and discussed its findings with the Bank. This work will continue on a structured basis in 2019.

1.3.2 Inspections (*on-site*)

Since the introduction of the Solvency II prudential rules in January 2016, insurance company inspections have centred mainly on the aspects most affected by the new regulations. The calculation of the best estimate of the technical provisions and mortgage loan valuations formed the subject of several specific missions which were completed in 2018. They produced significant findings. In 2018, other subjects more closely linked to economic business models and operating processes were also addressed.

Pricing

Owing to the persistently low interest rate environment, mixed insurance undertakings have stepped up their marketing of non-life insurance products on which profitability is less sensitive to movements in the yield curve. That triggered fiercer competition in some branches of activity. In that context, inspections were conducted in order to analyse the pricing and profitability of the "industrial accident"

1 The ORSA enables the insurer to assess its risks and solvency itself. In that connection, there is particular attention to the overall solvency need, continuous conformity with the set capital requirements and technical provision requirements, and assessment of the degree to which the insurer's risk profile deviates from the assumptions underlying the calculation of the solvency capital requirement ("adequacy of the standard formula").

2 The EPIFP is the expected profit included in future premiums on existing contracts. That expected profit reduces the best estimate and therefore increases the net assets.
Correct assessment of this element is therefore important.

3 Circular NBB_2017_13 of 19 April 2017 on the Own Risk and Solvency Assessment (ORSA).

branch for which the statistics reveal downward pressure on prices. These analyses show that a significant proportion of insurers operating in these business segments are defending their market share or aiming to expand it, often at the expense of their profitability. The inspections highlighted the importance of robust pricing and the formalism necessary in the pricing process. In the current market circumstances, shortcomings in those respects may lead to inappropriate continued activity and a discrepancy between the profitability targets and the actual results.

In view of the market competition, some firms slash their margins, damaging the profitability of the "industrial accident" branch as a whole. The Bank seeks to ensure healthy competition on this market segment, but that also entails robust and transparent pricing processes for all the insurers concerned.

Independent audit functions

Further qualitative inspection missions were carried out in 2018, permitting detailed examination of three independent audit functions: the actuarial function, the internal audit function and the risk management function.

It emerged that some firms do not yet provide sufficient resources for their independent audit functions. These functions need to be allocated the necessary time and resources so that they can fulfil their missions properly. In order to ensure their independence and objectivity, those responsible for the said audit functions obviously cannot (continue to) receive variable remuneration related to the performance of the operating entities and spheres over which they exercise supervision.

It was also apparent that the status of the independent audit functions within the organisation – and that does not only mean the organisation chart – did not always reflect the independence requirement. Even if the people performing these functions have the necessary skills, in practice they still do not have the required experience and often do not have the time for further development in their role, since they have to combine it with operational activities.

Internal models

During the year under review, an undertaking which had previously used the standard method was granted approval for its full internal model, following a two-year pre-application period. Pre-application work also began for two other undertakings wishing to set up an establishment in Belgium on account of Brexit.

The monitoring of the previously approved internal models of four companies continued in 2018. Various aspects were covered, such as monitoring of the firm's remedial plan, the "terms and conditions" imposed by the supervisors and general checks on the models' performance. A number of significant changes to these models were also examined during the year under review. Measures were taken where the Bank considered that the quality of the internal models was inadequate.

Apart from the work relating to the solvency capital requirement (SCR), the Bank continued its benchmarking of the economic scenario generators developed by insurers, and the monitoring of aspects relating to the asset-liability management of the models used to value the life insurance liabilities. The internal development of challenger models also continued.

BOX 16

Flashing-light reserve

The Royal Decree[1] on the annual accounts of insurance and reinsurance undertakings states that the additional reserves formed under Solvency I should be retained in the statutory annual accounts when switching to Solvency II and must then be topped up for as long as interest rate risks persist.

Since the new Solvency II framework imposes specific regulatory capital requirements to cover the interest rate risk, the said Royal Decree contains simplified provisions on exemption from the obligation to form additional reserves. The mechanism for granting such exemptions has been aligned more closely with Solvency II.

All the regulatory capital requirements must be covered in order to qualify for exemption from the obligation to form additional reserves. To claim exemption, firms must also conduct stress tests on their exposure to interest rate risk, and the test results must be satisfactory.

Cases are assessed as follows. Exemption is granted if the following two conditions are met and there are no other factors precluding exemption: the firm must first have a solvency ratio of over 100 % in the baseline scenario and must then maintain that ratio above 100 % after application of an adverse scenario.

For 2018, the Bank received exemption applications from 24 firms. Nine firms did not claim exemption and will therefore form additional reserves to cover the interest rate risk in their balance sheets.

1 Royal Decree of 1 June 2016 amending the Royal Decree of 17 November 1994 on the annual accounts of insurance and reinsurance undertakings.

2. Legal framework and prudential supervision

2.1 Revision of the Solvency II legal framework

Revision of the Solvency II standard formula

During the period under review, the European Commission revised some aspects of the standard formula for calculating the solvency capital requirement[1]. Between September 2015 and January 2016, the European Commission had held a public consultation on the advantages, undesirable effects, consistency and cohesion of the financial regulations, including the Solvency II legislation. Over 50 respondents had taken part in this public survey, including players in the insurance sector, public authorities and non-governmental organisations. On the basis of the feedback received by the Commission, three areas were identified in which the Solvency II framework could be improved.

The first area concerns the proportionate, simplified application of the Solvency II requirements. The Solvency II legislation replaced 28 national regimes with a harmonised, risk-based legal framework. The Solvency II Directive[2] specifies that the rules and implementing technical standards drawn up by the Commission should take account of the principle of proportionality, ensuring the proportionate application of the Directive, particularly in the case of small insurance undertakings. Although the legislation contains numerous provisions on proportionality, the public consultation showed room for improvements to ensure that the legal requirements are proportionate to the risks. Specific points where more simplifications are possible include the provisions on calculation of the capital requirements for counterparty default risk and catastrophe risk.

The second area concerns removing unintended technical inconsistencies. The public consultation showed that the Solvency II framework could be made more consistent with the legislation on other financial sectors, such as on the prudential treatment of derivatives and local authority guarantees. In this connection, differences in the business models of financial institutions ought to be taken into account. The legislation should also enable European insurers to use the latest financial products. Finally, it is necessary to avoid undesirable effects such as excessive dependence on credit rating agencies.

The third and final area for revising Solvency II concerns the removal of unjustified barriers to insurers' investments. In the public consultation, respondents pointed out that the Solvency II framework could create undesirable restrictions on long-term investment. The Solvency II Delegated Regulation was already amended in 2015[3] to support investment in infrastructure projects and European long-term investment funds (ELTIFs). The 2018 revision of the legislation provides for further refinement of the standard formula for calculating the capital requirements, in order to improve risk sensitivity for certain types of investment. For instance, in the case of investment in firms which do not currently have a credit rating issued by a rating agency, it would be possible to envisage a refined risk weighting based on these firms' financial figures.

On the subject of these three areas for revision, the European Commission sent two letters to the European Insurance and Occupational Pensions Authority (EIOPA) in July 2016 and February 2017, requesting a technical opinion on the specific components of the standard formula. EIOPA conveyed its technical opinions to the Commission in October 2017 and February 2018. They concern a number of questions of particular interest to the Belgian insurance sector, such as the treatment of local authority guarantees, the look-through approach for investment in related undertakings, and the provisions on the loss-absorbing capacity of deferred taxes.

Revision of the long-term guarantee measures

In order to ensure the efficient operation and stability of Europe's insurance markets, a number of long-term guarantee measures were introduced under the Solvency II regulatory framework. This concerns

1 As specified by recital 150 in Commission Delegated Regulation (EU) 2015/35 of 10 October 2014 supplementing Directive 2009/138/EC of the European Parliament and of the Council on the taking-up and pursuit of the business of insurance and reinsurance (Solvency II).

2 In accordance with Article 29(4) of Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of insurance and reinsurance (Solvency II).

3 See the Bank's Report 2017.

more particularly a technique for extrapolating the risk-free yield curve, thus establishing rates which are stable enough to attenuate the artificial volatility of the capital and technical provisions, various adjustments aimed at discouraging procyclical behaviour, and a number of transitional measures permitting a phased switch from the previous prudential regime (Solvency I) to the new regime.

Introduction of these measures is accompanied by close scrutiny of their effectiveness. To that end, EIOPA was instructed to report annually to the European Parliament, the Council and the Commission up to 1 January 2021 on the impact of the application of these measures. The national supervisory authorities are working closely with EIOPA to enable it to bring this project to a successful conclusion.

Since 2016, EIOPA has published three reports on the application of the long-term guarantee measures and their influence on the financial position of the undertakings concerned, as well as, more generally, on their economic impact in the European Union.

For example, EIOPA's 2018 Report shows that the solvency ratio of the Belgian sector as a whole is 192 % if all the long-term guarantee measures are taken into account, but drops to 174 % if those measures are disregarded. This 18-percentage-point impact is smaller than the European average, which is around 38 percentage points, with the solvency ratio dropping from 239 % to 201 %. It should also be noted that in Belgium, 39 firms use the volatility adjustment for risk-free yield curves, and only one applies the transitional measure for the technical provisions. At European level, 737 insurers and reinsurers out of a total of 2912 use at least one measure.

EIOPA is expected to give the European Commission its opinion on the long-term guarantee measures, if appropriate after consulting the ESRB and arranging public consultations. The Commission will then present a report on the revision of those measures by no later than 1 January 2021.

2.2 The IFRS 17 accounting standard

Since 1 January 2012, all insurers and reinsurers governed by Belgian law have had to draw up consolidated accounts and a management report on their consolidated accounts if, alone or jointly, they control one or more subsidiaries governed by Belgian or foreign law. That consolidation is carried out in accordance with the set of international accounting standards defined by the International Accounting Standards Board (IASB) which had been adopted by the European Commission by the balance sheet date.

On 18 May 2017, the IASB published a new standard relating to insurance contracts, IFRS 17, replacing the previous standard, IFRS 4. This standard lays down a set of principles governing the valuation of insurance contracts. It is essentially based on a current value method and harmonisation of the presentation of the accounts. The general valuation principles under the new standard are fairly similar to those of the Solvency II prudential regime. For example, in both cases, the expected value of the contractual cash flows has to be projected for each maturity, discounted via a risk-free yield curve, and adjusted for a risk margin.

At global level, the standard is expected to enter into force on 1 January 2022. Before it can apply in the EU, it must first be ratified by the European Commission. Initially, the standard was scheduled to enter into force on 1 January 2021, but in November 2018, the IASB provisionally decided to postpone the implementation date by one year, so that the uncertainty associated with a possible reopening of the standard – which the IASB is examining following requests from a number of sectoral associations – does not make it difficult for firms to be properly prepared.

In connection with this adoption process, the European Financial Reporting Advisory Group (EFRAG), a European panel of advisers on financial reporting, was asked by the European Commission to give an opinion on ratification of the new standard. That opinion is to be accompanied by a detailed impact analysis, including a cost-benefit analysis and a more general analysis of the economic impact of introducing the standard in the European Union. For that purpose, the EFRAG is working with the supervisors and firms concerned, who take part in field studies enabling it to complete its analyses. At the same time, EIOPA has conducted and published an analysis setting out the merits of the standard from a European angle and comparing the common features of the Solvency II regime and the new accounting standard, thus also highlighting the potential efficiency gains that could result. However, it should be noted that the new standard

is considerably more complex than the previous one, and its implementation is currently proving a challenge for the undertakings concerned.

2.3 Modernisation of the regulatory framework concerning governance

The Law on the supervision of insurance undertakings[1] introduced stricter governance quality rules applicable to insurers and reinsurers. Since this new regime came into force, the Bank has handled a large number of cases relating to governance and conducted an initial review of the implementation of the new quality requirements. It thus proved necessary to modernise the regulatory framework in various respects, and that led to the publication, on 13 September 2018, of a Communication[2] updating the Circular on the overarching governance system for the insurance and reinsurance sector[3] in various spheres.

That Communication first clarified the concept of proportionality by using quantitative and qualitative criteria to classify Belgian insurance and reinsurance institutions and groups into two categories: significant institutions/groups and less significant institutions/groups. The practical implications of that classification in regard to governance were spelt out. For example, the frequency of the complete revision of the Regular Supervisory Report (see section E.1.) is three years for less significant institutions/groups (with annual reporting of changes) and one year for significant institutions/groups. Another example is that less significant institutions are authorised to place one person in charge of a combination of independent audit functions or to outsource an independent audit function. Similarly, the rules governing the allocation of tasks among the members of the management board of a less significant institution are less stringent than those applicable in significant institutions.

Next, a number of aspects concerning the concept of the governance system were specified in detail. The missions of management bodies were clarified as regards the validation of prudential reporting and integrity policy. The organisational rules to be respected as regards the preservation of documents relating to insurance and reinsurance business in accordance with Article 76 of the Law, and the Bank's expectations on reporting of the independent audit functions and the combination of functions, were also spelt out.

Finally, taking account of the fact that growing numbers of undertakings outsource certain critical activities or functions, the Bank reinforced its outsourcing requirements, notably by defining the content of the information file to be submitted to the Bank and the arrangements for reporting by the service provider to the management bodies of the undertaking concerned.

2.4 International Capital Standard

In the context of the global convergence of prudential standards for insurance and the promotion of financial stability, the International Association of Insurance Supervisors (IAIS) is working on a common prudential framework for internationally active insurance groups (IAIG[4]). One feature of this framework is the development of an International Capital Standard (ICS) comprising several sections: the provision concerning the consolidation scope, the valuation of assets and liabilities, the capital elements and the capital requirements.

Over the past four years, field tests have been conducted on this subject. Field testing serves to refine the capital standards mentioned above and to continue developing the qualitative aspects of the regulatory framework. It also offers the benefit of contributions by experts from both the insurance sector and the supervisory authorities. During the period under review, a field test was conducted to specify the capital requirements in more detail according to a standard approach. In addition, data were collected on the internal models used to determine the capital requirements. The International Capital Standard is expected to be finalised by the end of 2019 with a view to its application to all internationally active insurance groups on a consolidated basis after a

1 Law of 13 March 2016 on the legal status and supervision of insurance and reinsurance undertakings.

2 Communication 2018_23 dated 13 September 2018 updating the Overarching Governance System Circular.

3 Circular 2016_31 on the Bank's prudential expectations regarding the governance system for the insurance and reinsurance sector ("Overarching Governance System Circular")

4 IAIGs are insurance groups which meet two criteria, the first relating to the weight of non-domestic activity and the second to the group's size. An IAIG should thus issue premiums in at least three countries, and the share of its non-domestic gross premiums issued should exceed 10 %. In addition, taking an average over three years, it should have assets in excess of $ 50 billion or premiums in excess of $ 10 billion. The supervisory authority has some discretion over the application of these measures when determining whether a particular group should be regarded as an IAIG.

five-year monitoring period. The ongoing discussions aim to ensure, among other things, that the European Solvency II standard is recognised as the practical implementation of the International Capital Standard.

2.5 Stress tests

The Bank's policy on stress testing for insurers specifies that the insurance sector must undergo a stress test at least once a year, and that the tests will be aligned with any European stress test. In 2018, EIOPA conducted one of these European stress tests in which two Belgian insurance groups took part. The Bank also decided to arrange a similar exercise for a number of insurers who together account for a significant share of the Belgian insurance sector. This Belgian stress test specified the same scenarios as those developed for the EIOPA exercise.

In 2018, the European stress test comprised three scenarios. Two scenarios presented a combination of market risks and underwriting risks. These two scenarios had been developed by EIOPA and the ESRB and reflect the ESRB's assessment of the main risks for the European financial system.

The primary aim of the Yield Curve Down (YCD) scenario is to assess the potential vulnerabilities of the insurance sector resulting from a persistently low interest rate environment combined with a small rise in risk premiums and a decline in mortality due to medical progress. The scenario affects both the assets and the liabilities of undertakings owing to an environment featuring declining risk-free yield curves combined with stresses affecting major asset categories in the investment portfolio and a bigger than expected increase in average life expectancy. This scenario not only forms part of the Bank's macroprudential risk assessment framework, it also makes it possible to identify any potential weaknesses at microprudential level. In practice, this means that the results of the YCD scenario are taken into account in in assessing applications for exemption from forming the flashing light provision for interest rate risk (see box 16, section E.1.).

The Yield Curve Up (YCU) scenario tests the sector's resilience in the case of a sudden, sharp rise in risk aversion supplemented by upward revision of the claims burden and an impact on the surrender of insurance contracts. This scenario leads to rising risk-free yield curves, a steep increase in risk premiums for the main asset categories, higher inflation with an impact on non-life technical provisions, and significant cash outflows owing to the increase in surrendered policies.

The third scenario, devised by EIOPA, simulates the impact of various natural catastrophes on the insurers' financial situation. This scenario was not used in the Belgian stress test.

The reference date for this exercise had been set as 31 December 2017. For each scenario, firms were asked to calculate the impact on the balance sheet, their own resources and the capital requirement. The stress test results were published on the EIOPA website [1].

2.6 Developments in reporting

During 2018, in regard to prudential reporting in the insurance sector, the emphasis was on data quality and on simplification of certain narrative and quantitative reports.

The data quality in the quantitative reports remains a matter for concern both for the sector and for the supervisors. As well as contributing to the introduction of new validation tests at European level, the Bank conducted its own validation tests at the Belgian level. Systematic tests on the list of assets were introduced to verify consistency between the Solvency II reporting information and that contained in the annual accounts. The Bank also continued to involve the auditors in the process of checking the quality of the prudential reporting and will pursue its dialogue with them in order to share its experience and specify its expectations.

A new Communication [2] modifies the narrative reports that insurers and reinsurers have to submit to the Bank from 2019 onwards. These changes mainly concern: (i) integration of the governance memorandum in the Regular Supervisory Report (RSR), (ii) revision of the frequency of collecting the RSR, with differentiation according to whether an institution is classed as significant or less significant, (iii) structured authorisation to refer to internal documents in the RSR, and (iv) adjustment of the arrangements for submitting certain reports. Apart from these fundamental

1 https://eiopa.europa.eu/Publications/Surveys/EIOPA%202018%20Insurance%20Stress%20Test%20Report.pdf

2 Communication NBB_2018_24/Insurance and reinsurance sector – regular reports to be submitted via the eCorporate platform from 2019 onwards.

revisions, the Communication also specified the report collection dates for 2019 and listed on the Bank's website the reporting templates to be used.

In its risk analysis, the Bank conducts a series of horizontal analyses each year of the risks to which the insurance sector is exposed. Belgian insurers' interest rate risk, liquidity risk and spread risk are examined in more detail. For the analysis of interest rate and liquidity risks, specific reports had been devised before the introduction of Solvency II. In 2018, on the basis of the new data supplied by Solvency II reporting, the Bank examined whether reporting on interest rate and liquidity risks could be streamlined.

In 2014, to obtain a more complete and detailed picture of the insurance sector's exposure to interest rate risk, the Bank decided to devise a specific standard annual report for monitoring that risk. The data were generally requested for both the undertakings' portfolio as a whole and for the main product segments. Thanks to the information in the Solvency II reporting, it has now been possible to simplify the interest rate risk reports. For instance, the cash flow projections for the technical provisions and yields are no longer requested. In addition, the duration of the technical provisions and of their covering assets and the asset cash flow projection now only have to be stated at the portfolio level. The section concerning the composition of the guaranteed interest rates on the insurance portfolio is retained in full. The date for supplying this report is being brought forward by two months from 2019.

In view of the downward trend in the volumes of traditional life insurance premiums and the increasing share of illiquid assets on the Belgian insurance market, the Bank specifies separate quarterly reporting on liquidity risk for all insurers providing life insurance. That reporting focuses on monitoring inward and outward cash flows, the trend in the liquid assets and liabilities, and finally, the trend in exposures to instruments and derivatives with a potential liquidity risk. That enables more systematic analysis of an insurer's liquidity risk, at both individual and sectoral level. The Solvency II reporting now offers the opportunity to derive a series of similar indicators, either directly or indirectly. In order to foster the efficiency of the two reporting systems, the liquidity reporting was therefore brought more into line with the Solvency II reporting requirements. For example, the data on the liquidity of the investment portfolio are no longer requested but are derived from the Solvency II reports on the list of assets. The date for delivering these reports is unchanged.

At European level, EIOPA has also announced its plan to initiate discussions on reporting from 2019 onwards. Revision of the reporting will aim to review the relevance of the content, structure and standardised formats of the Quantitative Reporting Templates (QRTs). However, the objective is not to reduce or increase the number of data items to be submitted, but to improve the reports and publications as a whole in relation to the aim in view.

F. Financial market infrastructures

During the year under review, in the sphere of market infrastructures, particular attention focused on IT risks and cyber risks, the impact of FinTech on the business models of financial market infrastructures, and developments concerning Brexit. These subjects are examined separately in chapter G. The rest of this chapter deals with the other activities concerning the supervision and oversight of market infrastructures, payments and critical service providers.

1. Mapping the sector

The Bank is responsible for both the oversight and the prudential supervision of financial market infrastructures (FMIs), custodians, payment service providers and critical service providers. Oversight concerns the security of the financial system, whereas prudential supervision examines the security of the FMI operators.

FMIs are critical components of the national and international financial markets, owing to the services which they provide, such as facilitating the exchange of money for goods, services and financial assets, or offering a secure and efficient way for the authorities to manage systemic risks and for central banks to conduct their monetary policy[1]. FMIs were designed to concentrate payment, clearing and settlement activities in order to improve risk management and reduce costs and delays in these areas. If they work well, FMIs can considerably enhance the efficiency, transparency and security of financial systems. However, their activities often lead FMIs to concentrate the risks, and badly designed and managed FMIs may even constitute a source of systemic risk in themselves. That is why it is necessary to have an adequate framework for regulation, supervision and oversight.

Central banks have traditionally taken on that oversight role because they are very concerned to maintain the security and efficiency of payment, clearing and settlement systems. One of the main tasks of central banks is in fact to maintain the public's confidence in the currency, and that confidence depends very much on the ability of the economic agents to transfer capital and financial instruments smoothly and securely via these FMIs. These systems therefore need to be robust and reliable and must remain available when the markets are in crisis; moreover, they must never be the source of a crisis themselves. Oversight pursues these aims by supervising, assessing and, where necessary, modifying the systems.

Central banks are very concerned to maintain the security and efficiency of payment, clearing and settlement systems

The Bank is also a microprudential supervision authority for individual financial institutions, placing the emphasis on the operator's financial soundness (by assessing compliance with the prudential requirements).

In cases where the Bank exercises both oversight and prudential supervision, these two activities may be considered complementary.

The table below presents the systems and institutions subject to the Bank's supervision and/or oversight.

1 The role played by FMIs for financial markets and the real economy is described in section 1.1 of the Financial Market Infrastructures and Payment Services Report 2018 (https://www.nbb.be/doc/ts/publications/IMF-and-paymentservices/2018/IMF-report2018.pdf).

Table 25

Mapping of the financial market infrastructures and payment services sector

	International cooperation		The Bank acts as the sole authority
	The Bank acts as lead authority	The Bank participates under the direction of another authority	
Prudential supervision		Custodian Bank of New York Mellon SA/NV	Custodian BNYM Brussels branch
			Payment service providers (PSP) Payment institutions (PI) Electronic money institutions (ELMI)
Prudential supervision and oversight	Central securities depository (CSD) Euroclear Belgium International central securities depository (ICSD) Euroclear Bank SA/NV Equivalent settlement institution Euroclear SA/NV	Central counterparties (CCP) LCH Ltd (UK), ICE Clear Europe (UK) LCH SA (FR), Eurex Clearing AG (DE), EuroCCP (NL), Keler CCP (HU), CC&G (IT)	
			Payment processors Worldline SA/NV
Oversight	Critical service provider SWIFT	Service provider TARGET2-Securities (T2S)[1]	Central securities depository NBB-SSS
		Payment system TARGET2 (T2)[1] CLS Bank	Card payment schemes Bancontact[1] MasterCard Europe
			Payment system Centre for Exchange and Clearing (CEC)[1]

Post-trade infrastructure	Securities clearing	Payments	Payment systems
	Securities settlement		Payment institutions and electronic money institutions
	Custody of securities		Payment processors
Service providers	T2S		Card payment schemes
Critical service providers	SWIFT		

Source: NBB.
1 Peer review in Eurosystem/ESCB.

As well as being classified according to the type of services provided, these institutions are also grouped according to: (i) the Bank's role (namely prudential supervision authority, overseer, or both) and (ii) the international dimension of the system or institution (the Bank as the sole authority, international cooperation agreement with the Bank as the main player, or other role for the Bank).

2. Priorities for oversight and supervision

A number of subjects such as IT risks and cyber risks and the impact of FinTech and Brexit are examined on a transversal basis in chapter G. During the year under review, the priorities specific to the various institutions were also determined on the basis of

risk analyses. Liquidity risks and operational risks were common themes here. Particular attention was also paid to the new authorisation requirements under the stricter European regulatory standards. Institutions already approved in Belgium had to show that they satisfied these new requirements in order to be able to pursue their activities. The next section gives more details on the applications for authorisation from the Belgian central securities depositories under the CSD Regulation, central counterparties, the supervision of payment institutions – including the grandfathering procedure under the second European Payment Services Directive (PSD2) – and the oversight of payment activities.

Central securities depositories

In the year under review, the Bank, as the competent national authority, concentrated on assessing the central securities depositories' compliance with the CSD Regulation [1].

Although, from a strictly legal angle, NBB-SSS [2] does not come under the competent authority for CSDs, the Bank decided to implement internally an independent check on compliance by NBB-SSS with the CSD Regulation, just as it has the task of checking compliance with this Regulation by the private CSDs (namely Euroclear Belgium and Euroclear Bank), thus encouraging fair competition conditions.

In September 2017, Euroclear Belgium had applied for authorisation under the CSD Regulation. The Bank had considered this application incomplete in that it needed additional information to assess whether all the CSD Regulation's requirements were met. In September 2018, Euroclear Belgium provided all the additional information requested, whereupon the Bank considered its application to be complete. Following consultation with the "relevant authorities" [3] (during a statutory maximum period of three months after the application was deemed complete), the Bank will decide during 2019 whether Euroclear Belgium fulfils all the conditions for authorisation as a CSD.

Throughout the Euroclear Belgium authorisation process, the Bank maintained close contact with the competent authorities in France and the Netherlands on the grounds that Euroclear Belgium uses the same technical platform (ESES) as Euroclear France and Euroclear Nederland, and their authorisation applications therefore contain many identical components. Although the assessment process is organised bilaterally by each competent authority with its CSD, the authorities concerned coordinate the process with one another on account of these identical components.

The Bank also resorted to international cooperation for the international central securities depository, Euroclear Bank. The overseers of the central banks issuing the main currencies – with which a multilateral cooperation agreement has been concluded – can exchange their views on the Bank's assessment of the management of Euroclear Bank's credit risk, liquidity risk and operational risk. As in the case of Euroclear Belgium, the application from Euroclear Bank seeking authorisation under the CSD Regulation had similarly been judged incomplete, and during the year under review the Bank paid particular attention to the areas on which additional information had been requested. In preparation for the authorisation of Euroclear Bank as a CSD, close cooperation was also established with the Luxembourg authorities, responsible for the other international securities depository, Clearstream Banking Luxembourg, in order to achieve a harmonised approach.

Central counterparties

Although no central counterparty (CCP) has its registered office in Belgium, the Bank takes part in various colleges supervising CCPs, either because these institutions settle transactions in the books of a Belgian central securities depository or because of the importance of a Belgian financial institution as a participant in a CCP. Since the euro-denominated activities of CCPs currently operating from the United Kingdom may be significant, the impact of Brexit is being closely monitored. Otherwise, the priorities for the supervision of the various CCPs are determined by the competent national authorities, in consultation with the supervisory colleges.

1 Regulation (EU) No. 909/2014 on improving securities settlement in the European Union and on central securities depositories.

2 NBB-SSS is the securities clearing and settlement system managed by the Bank, which is used to issue the bonds of the Belgian government, regional entities and certain private issuers. Belgian equities are issued in Euroclear Belgium.

3 These include ESMA, the Eurosystem as the central bank issuing the euro, and the authorities of the Member States for which the CSD is important.

Prudential supervision of payments

The Bank bears wide responsibility for payments and – depending on the system or the institution – acts as the overseer or the prudential supervision authority, while – as the prudential supervisory authority – it supervises payment service providers.

At the end of 2018, 19 payment institutions and five electronic money institutions were subject to the Bank's supervision. The Bank also exercised supervision over five institutions with limited status[1] and five branches of foreign institutions. During the year under review, no new authorisation was issued for any Belgian payment institution or electronic money institution. Also, during the year under review, three authorisations were withdrawn, two foreign branches were authorised, and one institution progressed from limited status to full status.

A key element of the authorisations granted by the Bank in connection with Brexit is the effective relocation of payment services and/or electronic money services in a Belgian entity. This means that commercial decisions concerning the Belgian market – and, by extension, the EEA market if the services are provided there on the basis of authorisation in Belgium – must be taken by the Belgian entity, and that real activities must take place in the Belgian entity or be organised from there. Applicants can use the content of their original foreign application, but it must be adapted from the point of view of the Belgian entity and must take account of specific features of the Belgian legislation applicable, e.g. as regards the regulations on money-laundering.

In 2017, the Bank had already granted authorisation to two Belgian payment institutions established by British payment institutions with a view to continuing to provide their services on the continent after Brexit.

During the second half of the year under review, a number of applications were received from British payment institutions for authorisation of a Belgian payment institution which could operate in parallel with the British one and provide services in the EEA from the Belgian entity.

During the period under review, one of the priorities for the prudential supervision of payment institutions and electronic money institutions was the

1 Limited status implies that a number of administrative requirements concerning authorisation have not been met (for example, presentation of an *ex-ante* plan for supplying the Bank with statistical data, or a plan for notifying the Bank of major incidents). Conversely, the requirements concerning IT security or combating money laundering are applicable in full to limited status institutions.

Table 26

Number of payment and electronic money institutions subject to supervision

(end-of-period data)

	2014	2015	2016	2017	2018
Payment institutions	18	20	24	26	25
Under Belgian law	11	12	16	19	19
Limited status institutions[1]	4	5	5	5	3
Foreign branches governed by the law of an EEA member country	3	3	3	2	3
Electronic money institutions	11	11	9	9	9
Under Belgian law	5	5	5	5	5
Limited status institutions[2]	5	5	3	3	2
Foreign branches governed by the law of an EEA member country	1	1	1	1	2

Source: NBB.

1 Institutions registered as having limited status in accordance with Article 82 of the Law of 11 March 2018 and subject to a limited regime.

2 Institutions registered as having limited status in accordance with Article 200 of the Law of 11 March 2018 and subject to a limited regime.

implementation of the second European Payment Services Directive (PSD2)[1], which was transposed into Belgian law by the Law of 11 March 2018[2]. Among other things, that Law requires the Bank to verify, on the basis of a file submitted by the institution, whether the institution satisfies the additional authorisation requirements introduced by the PSD2. The transitional procedure, which took place during the year under review, is also known as "grandfathering". Institutions which have not submitted a complete file by the stipulated deadline may be obliged by the Bank to cease their payment activities.

The authorisation requirements under the PSD2 which are added to those which applied under the PSD1 concern the following eight topics:

1. protection of sensitive payment data;
2. compliance with the EBA guidelines on strong customer authentication and common and secure open standards of communication[3];
3. application of an adequate IT security policy;
4. notification of security incidents and operational incidents to the Bank;
5. collection of statistical data on transactions, fraud and performance;
6. establishment of the provisions necessary for business continuity;
7. compliance with the rules on the issuance of card payment instruments; and
8. compliance with the rules on payment account management.

It should be noted that the requirements do not apply to all institutions, some being specific to a particular business model.

1 Directive (EU) 2015/2366 of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market, amending Directives 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation (EU) No. 1093/2010, and repealing Directive 2007/64/EC

2 Law of 11 March 2018 on the legal status and supervision of payment institutions and electronic money institutions, access to the activity of payment services provider and the activity of electronic money issuance, and access to payment systems, M.B./B.S. 26 March 2018 ("Law of 11 March 2018").

3 Commission Delegated Regulation (EU) 2018/389 of 27 November 2017 supplementing Directive (EU) 2015/2366 of the European Parliament and of the Council with regard to regulatory technical standards for strong customer authentication and common and secure open standards of communication.

During the year under review, the Bank also published Circulars and additional information obligations necessary for the sector so that compliance with these new requirements can be monitored continuously. The Bank likewise took the necessary steps to transpose into Belgian law the technical standards and guidelines established by the EBA, and to notify them to the Belgian payments sector.

Oversight of payment activities

As the overseer, the Bank covers payment systems, payment instrument processors, and card payment schemes. The proper, secure processing of card payments in Belgium is a key objective of the Bank's oversight, in view of their role in the real economy. Although payment processors are not necessarily payment systems, the Belgian economy is heavily dependent on their smooth operation, and hence on the stability and continuity of book-entry payments. The Law of 24 March 2017[1] makes systemically important payment processors subject to the Bank's direct legal supervision and lays down certain conditions on the pursuit of the activity.

In regard to payment systems, in 2018, the ECB published the results of the Eurosystem's assessment exercise covering all payment systems located in the euro area. For systemically important payment systems (SIPS)[2], the criteria used for that assessment are set out in the ECB's SIPS Regulation[3], while for other systems the criteria are included in the *ad-hoc* oversight framework[4] developed by the ECB. In this exercise, the Bank took charge of the assessment of the CEC (Centre for Exchange and Clearing), the Belgian domestic system which handles most of the interbank retail payments in Belgium.

For the CEC, 2018 was dominated by the preparation of the instantaneous payments platform which will enable customers of participating banks to transfer sums of money in just a few seconds to the recipient's account. This platform is scheduled to come into operation early in 2019. In the course of its oversight of the CEC, the Bank monitored this preparatory phase.

1 Law of 24 March 2017 on the supervision of payment transaction processors.
2 The systemically important payment systems (SIPSs) are: TARGET2, EBA Euro 1, EBA/STEP2 and STET (the French retail payments system).
3 Regulation (EU) No. 795/2014 of the European Central Bank of 3 July 2014 2014 on oversight requirements for systemically important payment systems (ECB/2014/28).
4 "Revised oversight framework for retail payment systems", ECB, February 2016.

During the year under review, still within the framework of the Eurosystem, the Bank also took part in the assessment of card payment schemes in regard to the EBA guidelines on the security of internet payments. In this connection, it examined the Bancontact scheme and acted as lead overseer – a coordinating role – of an international group in charge of the assessment of Mastercard Europe. As in the case of the payment systems mentioned above, the ECB published the summary report on the overall level of the sector's conformity with these guidelines.

The Law of 24 March 2017 on the supervision of payment transaction processors imposes obligations on systemically important processors concerning risk management, operational continuity and the notification of incidents. As prescribed by that Law, in November 2018, the Bank adopted a Regulation which specifies the various details of those obligations: that Regulation should be published shortly in the form of a Royal Decree.

1 Two processors currently hold that status: Worldline and equensWorldline.

G. Cross-sectoral aspects of prudential regulation and supervision

As a prudential supervisory authority, the Bank has jurisdiction over a range of spheres which cover multiple sectors and are therefore not discussed in the sections of this Annual Report on banking, insurance and financial market infrastructures.

The year 2018 brought notable developments in the European legal framework concerning the prevention of money-laundering and terrorist financing plus, at national level, the entry into force of the new anti-money-laundering Law.

The quality assurance unit, which aims to ensure that the Bank's prudential supervision and resolution activities satisfy a number of quality requirements, continued that work.

On the subject of FinTech and digitisation, the Bank sent a questionnaire to a representative sample of institutions in the sectors comprising credit institutions, market infrastructures, payment institutions, electronic money institutions and insurance undertakings, in order to obtain a sectoral overview of the key trends and developments. One specific point for attention concerned the transposition of the second European Payment Services Directive (PSD2).

In view of the still growing cyber threats, the Bank actively contributed to the further development, at European level, of a regulatory framework for the management of cyber risks and recommendations on the subject. During the year under review, it also carried out several inspection assignments concerning cyber risk and set up a framework for ethical piracy. Finally, in collaboration with Febelfin, the Bank continued its work of mapping e-banking fraud.

As regards governance and the collaboration of auditors in prudential supervision, the year under review brought the preparation of a common approach by the Bank and the FSMA concerning the expertise of those responsible for the compliance function, publication of a communication on the renewal of auditors' accreditation, and a new "fit and proper" Circular. The Bank also took part in monitoring the recommendations of the Optima and Panama Papers commissions.

Finally, in 2018, the Bank made financial institutions aware of the risks that would result from a "hard Brexit", notably via contracts with British counterparties.

1. Prevention of money-laundering and terrorist financing

In regard to combating money-laundering and terrorist financing (AML/CFT) at European level, 2018 brought some notable changes in the legal framework and the emergence of new projects resulting from significant incidents which can be deemed to have revealed weaknesses in the existing legal framework or its implementation.

In Belgium, these developments are accompanied by the implications of the entry into force of the new anti-money-laundering Law of 18 September 2017[1]. During the past year, the Bank therefore paid particularly close attention to the effective implementation of that new Law.

1 Law of 18 September 2017 on the prevention of money-laundering and terrorist financing and limits on the use of cash.

1.1 Development and implementation of the European legal framework and new projects for the future

The 5th European Directive on AML/CFT[1] came into force on 9 July 2018. Instituted in response to the 2015 terrorist attacks in Europe, this Directive aims mainly to strengthen the European legal framework and that of the Member States in such matters as the vigilance measures applicable in regard to electronic money or high-risk countries, and the transparency of companies and legal structures, in particular by clarifying the scope of the concept of "actual beneficial owners" of trusts and similar legal arrangements. It introduces an obligation on the Member States to compile a list of prominent public functions, as the people entrusted with those functions become "politically exposed persons" requiring the exercise of greater vigilance[2]. It also requires Member States to make operators in virtual currencies subject to obligations preventing money-laundering and terrorist financing (AML/CFT) and to supervision on compliance with those obligations. In addition, the new directive aims to improve the functioning of national financial intelligence units and their mutual cooperation, and the functioning and interconnection of national registers of the actual beneficial owners of companies and legal structures. It likewise introduces a new obligation on Member States to set up a central register or mechanism permitting identification of the holders of bank accounts, payment accounts and

1 Directive (EU) 2018/843 of the European Parliament and of the Council of 30 May 2018 amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money-laundering or terrorist financing and amending Directives 2009/138/EC and 2013/36/EU (OJEU of 19 June 2018).

2 While some categories of politically exposed persons, such as heads of State, heads of government, ministers and so on are unequivocal, other categories, such as senior officers in the armed forces, members of the administrative, management or supervisory bodies of public enterprises, etc., may give rise to differing interpretations and be clarified by compiling such a list.

safe-deposit boxes. Finally, the 5th directive also includes various provisions to facilitate and intensify cooperation between the competent national supervisory authorities concerning AML/CFT, and with the prudential supervisory authorities, including the ECB acting under the SSM.

As this 5th Anti-Money-Laundering Directive has to be transposed into the national laws of the Member States by 10 January 2020, the Bank is taking part in the working group coordinated by FPS Finance – Treasury – which is in charge of drawing up the technical aspects of a preliminary draft transposition Law. The Bank will also put forward, in this connection, legislative provisions which properly clarify and reinforce the cooperation obligations of the national supervisory authorities in regard to AML/CFT, with a view to making that supervision more effective.

In factual terms, there have been a number of incidents in Europe recently which appear to reveal weaknesses in the implementation of the European legal framework on AML/CFT and its supervision in certain EU Member States. In view of these events, the European Commission published a communication[1] on 12 September 2018 listing the legislative and non-legislative measures which it recommends reinforcing in the short term both prudential supervision of banks and their supervision in regard to AML/CFT, as well as its ideas for the longer term.

As a short-term legislative measure, the Commission says that it wishes to remove all the legal obstacles to the exchange of information between prudential supervision authorities and the authorities supervising the AML/CFT of banks by amending the Capital Requirements Directive[2]. It also states that it wishes to supplement the current review of the founding regulations of the three European supervisory authorities[3] with additional amending provisions on their roles in regard to AML/CFT. These additional changes aim primarily to centralise powers relating to AML/CFT in the EBA, including in sectors of activity which come under EIOPA or ESMA. They are then meant to clarify the content of EBA's tasks in this area and strengthen the legal tools provided for that purpose. Among other things, the Commission envisages obliging the EBA to inform the European Parliament, the Council and the Commission of any serious unresolved shortcomings which it identifies, for instance in its peer reviews, and enabling the EBA to issue injunctions to both national supervisory authorities and financial institutions. Finally, in the short term the Commission wishes to give the EBA a central role in cooperation with the authorities of third countries.

On the subject of short-term non-legislative measures, the Commission encourages the European supervisory authorities, and especially the EBA, to make use of their existing powers. That includes drawing up "common guidelines" and the implementation of peer reviews and procedures for breaches of European law, both in order to ensure that the authorities in charge of the prudential supervision of banks take due account of the AML/CFT risks, even if those authorities do not simultaneously hold specific responsibilities for supervising AML/CFT, and to reinforce the Europe-wide effectiveness and convergence of the AML/CFT supervision exercised by the national authorities. The Commission likewise encourages the ECB to meet the deadline for concluding the agreement with the AML/CFT supervisory authorities required by the 5th Directive for organising their cooperation, and to clarify the arrangements for taking account of AML/CFT risks in the exercise of its supervisory powers.

Following a number of recent incidents in Europe, the European Commission published a series of measures aimed at strengthening supervision in order to combat money-laundering and terrorist financing

1 Communication from the Commission to the European Parliament, the European Council, the European Central Bank, the Economic and Social Committee and the Committee of the Regions strengthening the Union framework for prudential and anti-money-laundering supervision for financial institutions, 12 September 2018, COM (2018) 645 final.

2 Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC.

3 Regulation (EU) No. 1093/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Banking Authority), amending Decision No. 716/2009/EC and repealing Commission Decision 2009/78/EC; Regulation (EU) No. 1094/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Insurance and Occupational Pensions Authority), amending Decision No. 716/2009/EC and repealing Commission Decision 2009/79/EC; and Regulation (EU) No. 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No. 716/2009/EC and repealing Commission Decision 2009/77/EC.

In the longer term, the Commission announces that it will explore the potential for further reforms which could include replacement of the current Directive specifying the minimum degree of harmonisation in regard to AML/CFT with an EU Regulation directly applicable in the legal systems of the Member States, which would achieve full harmonisation of the national laws on the subject, and the creation or designation of a European authority centralising the responsibility for exercising supervision over AML/CFT.

Since the publication of this particularly important Communication by the European Commission, the Bank has played an active and constructive part in the technical discussions on the short-term legislative measures referred to above. Convinced of the need to produce a strong and effective European response to the recent incidents, the Bank is particularly careful in this context to ensure the high technical quality of the intended amendments to European legislation, and to maintain a proper balance between provisions specifically relating to AML/CFT supervision and those relating to prudential supervision.

It should be noted that, once these new provisions have been adopted and are in force, they could have a significant direct impact on the responsibilities of the Bank as both a national supervisory authority for AML/CFT and a prudential supervisory authority.

On 4 December 2018, responding to the same events as the European Commission, the European Council also published its Conclusions[1] on an Anti-Money-Laundering Action Plan, which sets out the measures which it intends to see implemented without delay both by the European Commission and the European authorities, and by the Member States and their competent national authorities, in order to rectify the shortcomings found.

1.2 Implementation of the Law on the prevention of money-laundering of 18 September 2017

Communication to financial institutions of their AML/CFT obligations

Following entry into force of the Anti-Money-Laundering Law of 18 September 2017, the Bank considered that, in order to ensure effective application of the Law, it needed an efficient communication instrument enabling it to provide financial institutions with complete, easy and regularly updated information, so that they would know and understand in detail all the legal and regulatory obligations to which they are subject in that respect. For that purpose, the Bank created a new section on its website, gathering together all the relevant texts on AML/CFT (Law, Regulations, preparatory work, European and international guidelines, etc.), and arranging them by subject in order to facilitate searches. This section can also be used to address to the financial institutions the recommendations and comments that the Bank deems necessary for the correct and effective application of the provisions of the law and regulation on the prevention of money-laundering.

After having placed the structure of the new website section and all the reference documents on line at the beginning of 2018, the Bank steadily enhanced it by adding its comments and recommendations in stages, subject by subject, after having first submitted its plans to the financial sector's professional associations for consultation. At the end of 2018, this website section thus contained all the recommendations which the Bank considered useful for all relevant aspects of the subject. There are alert mechanisms for informing financial institutions whenever significant changes are made to the website. It is also possible to consult earlier versions of the website. At a future stage, the Bank will also publish this website section in English.

In the future, the Bank will update this website regularly whenever it considers that necessary, notably to take account of changes in the standards and recommendations of the competent international bodies concerning AML/CFT, the European and national legal and regulatory framework and the interpretation of the applicable rules, etc.

Risk-based supervision methodology

Since the Bank is legally required to apply a risk-based approach in exercising its supervisory powers, it has to implement a supervision methodology in accordance with the common guidelines on

1 Anti-Money-Laundering Action Plan – Council Conclusions, 4 December 2018.

risk-based supervision, adopted on 7 April 2017 by the European supervisory authorities[1] and which the Bank stated that it would respect.

For that purpose, and on the basis of the experience gained in previous years, the Bank collects the summarised initial data that it needs concerning the inherent AML/CFT risks confronting each financial institution, the apparent degree to which its AML/CFT mechanisms conform to the legal and regulatory obligations, and the apparent effectiveness of those mechanisms by means of the periodic questionnaire, the 2018 version of which was produced on a sectoral basis[2]. In addition, in 2018, the Bank acquired supplementary IT tools giving it the benefit of an automated preliminary analysis of the responses to the periodic questionnaire submitted online by each financial institution, and also enabling it to take account of all the available information, including the result of the earlier off-site supervision and on-site inspections, the prudential information and the information obtained from accredited auditors or reliable external sources, in order to allocate an appropriate risk profile to each financial institution.

That risk profile determines the level of priority, frequency and intensity of the off-site supervision. Depending on the case, the checks may include detailed examination of the organisation charts, policies and internal procedures of the financial institution concerned, the collection and analysis of more detailed information from the institution, examination of internal audit reports and the way that they have been followed up, meetings with the AML/CFT officer and the senior director responsible, etc. Where appropriate, visits to the premises may be arranged in order to enable the supervision team to examine the situation in more detail, though these on-site visits do not follow the audit methodology applied to on-site inspections. Off-site supervision also includes monitoring the action plans produced by financial institutions following previous on-site inspections. These off-site supervisory actions are intended to determine the measures that the financial institution concerned must adopt and implement within a reasonable period in order to rectify the weaknesses identified. It may, if necessary, result in recourse to the constraint powers granted to the Bank by the Anti-Money-Laundering Law of 18 September 2017, such as setting deadlines for rectification, the imposition of penalties, ordering the replacement of directors, suspension of activities, etc.

The risk profile assigned to financial institutions taking account of the results of previous checks also serves as a basis for determining the priorities for on-site inspections concerning AML/CFT, and the subjects which those inspections will cover.

The Bank is continuing to strengthen its risk-based supervision tools

Checks on the effective implementation of the new legal and regulatory provisions

Since the entry into force of the Anti-Money-Laundering Law of 18 September 2017, the Bank has had to ensure that financial institutions subject to its statutory supervisory powers take the necessary action, within a reasonable time, to comply fully and effectively with their new legal and regulatory obligations. The most crucial of those is the obligation to conduct an overall assessment of the AML/CFT risks as the basis for their internal AML/CFT procedures and policies. The Bank therefore instituted checks whereby it requested all financial institutions under its jurisdiction to conduct such an overall risk assessment without delay, together with a systematic analysis of the weaknesses of their internal AML/CFT mechanisms in regard to both their new legal and regulatory obligations and the risks which they identified, and to produce an action plan for remedying those weaknesses within a reasonable period of time[3].

The Bank asked them to submit an interim report on this work by the end of March 2018, in order to ensure that the work had actually been started, followed in mid-July 2018 by a final report summarising the conclusions of their risk analysis, their analysis of the weaknesses, and their action plan for remedying them.

1 "Joint Guidelines on the characteristics of a risk-based approach to anti-money-laundering and terrorist financing supervision, and the steps to be taken when conducting supervision on a risk-sensitive basis – The Risk-Based Supervision Guidelines", ESAs 2016 72, 7 April 2017.

2 Circular NBB_2018_01 of 15 January 2018 / Periodic questionnaire on the prevention of money laundering and terrorist financing.

3 Circular NBB_2018_02 of 24 January 2018 / Global risk assessment concerning anti-money-laundering and terrorist financing.

The Bank incorporates this information in its risk-based supervision process as described above, giving priority to the examination of information supplied by financial institutions to which it has assigned a high risk profile. As well as continuing these checks in 2019, the Bank drew the financial institutions' attention to the fact that this work must be repeated when necessary to adjust their internal AML/CFT mechanisms in line with changes in the risks to which they are exposed.

Specific checks on funds transmission

In 2018, in view of the high risks specifically linked to the transmission of funds involving the substantial use of cash, the Bank completed the horizontal checks launched in 2017 and comprising the examination of a sample of transactions effected by agents of the main Belgian or foreign payment institutions (money remitters) operating in Belgian territory. For the purpose of these checks, the Bank first sent each of the payment institutions concerned individual recommendations on rectifying the weaknesses identified.

However, on the basis of all the analyses conducted and the additional information received, the Bank also found that certain shortcomings are common in these institutions' control procedures and systems. The points for attention identified essentially concern the supervision of agents, coding errors, vigilance over transactions between Belgian counterparties, situations which may reveal fragmentation of transactions, and finally, the need for exclusive management by the compliance function of requests for information and alerts.

The Bank therefore considered it necessary to publish a Communication[1] notifying the entire sector of the general lessons derived from these horizontal checks, while explicitly stressing the importance of rigorous compliance with the obligations under the legal and regulatory AML/CFT framework, and adherence to the internal policies and procedures established within payment institutions.

1 Communication NBB_2018_21 of 20 June 2018 / Horizontal supervisory analysis comprising examination of a sample of transactions concluded by agents linked to various payment institutions.

AML/CFT checks on the occasion of new applications for authorisation or registration of entities subject to the Anti-Money-Laundering Law of 18 September 2017

In processing applications for the authorisation of new financial institutions and the registration of new branches or other forms of establishment on Belgian territory which are subject to the Anti-Money-Laundering Law of 18 September 2017 and the Bank's supervisory jurisdiction, the Bank ensures that these entities will comply fully with their obligations on this matter, notably as regards their governance and organisational arrangements, and their policies, procedures and internal controls, on the basis of an appropriate overall risk analysis.

A particularly large number of applications of this type were submitted in 2018, notably in view of the United Kingdom's imminent departure from the European Union and the decision of many financial institutions based there to relocate to EU territory. This particularly concerns the electronic money and payment institutions sector, but also the credit institutions sector. In regard to these applications, the Bank pays special attention to obtaining the assurance that the decision-making centre for performance of the AML/CFT function is actually located in the Belgian entity and that the organisational measures implemented permit effective performance of that function.

The processing of these applications had a very significant impact on the allocation of the human resources which the Bank assigns to the performance of its supervisory powers relating to AML/CFT.

2. Quality assurance

The quality assurance unit continued the work initiated in 2016, which aims to ensure that the Bank's prudential supervision and resolution activities (in both the national and the international context) meet the specified quality requirements.

More than half of the work done concerned banking supervision, and was centred on three main aspects: finalisation of a quality assurance mission which aimed to assess whether the governance, organisation and functioning set up by the Bank in the context of the SSM enable it to perform

adequately its role as a national competent authority in relation to the ECB; the Bank's role as the NBB single point of contact for ECB in terms of quality and as contributor to its quality assurance work under the SSM; and continuation of the work on improving the quality of the processes, procedures and checks applied within the operational services responsible for the supervision of less significant institutions (LSIs).

The quality assurance unit also had to intervene occasionally, as a facilitator, coordinator or adviser, in a whole range of cross-sectoral issues, i.e. dealing with subjects which concern more than one prudential supervision service at a time. These actions were initiated by the quality assurance unit or in response to a request from the Bank's management. For example, the quality assurance unit played a key role in 2018 in ensuring that the cross-sectoral recommendations of the Internal Audit addressed to the prudential supervision services are properly implemented.

The network of quality assurance correspondents from the Bank's operational supervision and resolution services continued its work. That relates both to the regular, structured exchange of information on quality, and to consultation on the definition of initiatives to improve the quality of their activities. This led to the continuing implementation within those services of the quality targets defined to ensure that supervision would be effective, efficient and rigorous.

3. FinTech

In recent years, driven by technological innovations and changing consumer preferences, the financial sector has become increasingly digitalised, with the introduction of numerous new applications, processes and products. Digital transformation and FinTech[1] are closely linked concepts and are characterised by both the arrival on the market of new, innovative service providers and initiatives of existing institutions aiming to improve their organisation, their provision of services and their product range with the support of technological innovations.

The Bank recognises the importance of these developments and has therefore taken various measures to establish a dialogue on these issues with both new and established market players. In that context, the Bank set up a central contact point (FinTech single point of contact), in close coordination with the FSMA, to address FinTech-related questions[2].

The Bank made the financial sector aware of the challenges concerning FinTech and digitisation

In view of the potential influence of new technologies on the financial market, the Bank also aimed to develop a sectoral overview of significant trends and developments concerning Fintech and digitisation in the Belgian financial landscape. Therefore the Bank sent a structured survey in the second half of 2017 to a representative selection of institutions in the sector comprising credit institutions, market infrastructures, payment institutions, electronic money institutions and insurance undertakings.

The survey aimed to assess the outlook and general observations of the industry on FinTech, the prospects for certain business models and specific technologies, the practical strategy pursued by institutions with regard to Fintech, and observations or comments related to regulation and supervisory practices. The horizontal survey also aimed to obtain an idea of the stance of the various players with regard to FinTech, the potential impact of these developments on their current business model, and the measures they expect to take to deal with this trend.

3.1 Survey for credit institutions

The responses by credit institutions showed, *inter alia,* that they first of all intend to modernise in order to remain relevant in the future. Banks also consider it relatively plausible that financial services will become increasingly modular and that banks can retain sufficient business, while a large number of new, specialist companies take over certain specific activities, notably

1 The Financial Stability Board (FSB) defines the FinTech concept as technology-enabled innovation in financial services that could result in new business models, applications, processes or products with an associated material effect on financial markets and institutions and the provision of financial services.Circular NBB_2018_02 of 24 January 2018 /Global risk assessment concerning anti-money-laundering and terrorist financing.

2 The central FinTech contact point may be found at https://www.nbb.be/fr/supervision-financiere/generalites/point-de-contact-fintech.

by offering them directly on the platforms of banks and technology companies.

The banks are of the opinion that their main strength lies in their established client portfolio, their customer knowledge, and the confidence that the customers have in them. Furthermore, they believe they also have an advantage over the new financial institutions in terms of knowledge and experience, both on the level of the oftencomplex regulations and on the level of risk management.

On the other hand, the Belgian banking sector expressed its concerns about its often aged IT infrastructure, which may lead to higher operating costs, inefficient processes, or an increase in the associated risks, and problems in implementing innovative business models. In addition, the survey responses highlighted that a number of banks have no clear strategy on FinTech and digitisation, which means that they have no clear view on the situation and often demonstrate reticent behaviour. In each market segment there were clear examples of these banks with no innovation-strategy, while some of their direct competitors were clearly gaining a competitive advantage through their continued efforts in this matter. The survey also demonstrated that banks of a more modest size rather position themselves as "follower", and refer to the fact that, in terms of operational and financial capacity, they are less able to experiment, and that big banks are more attractive to FinTech entities for developing partnerships.

With regard to the impact of FinTech, the banks highlighted cyber risks in particular, alongside the risks related to their profitability and strategy, and the risk that their role will may decline if customers conclude transactions directly with investors, thereby by-passing their function as intermediary.

At the end of 2018, the Bank published the results of this analysis on its website[1] and drawing attention to a number of good practices in this context. An essential part of these recommendations refers to the necessity for designing, implementating and managing a clear strategy, in which the role and participation of the board of directors proves to be a key success factor. The banks must also be sufficiently aware that, in certain cases, FinTech and digitisation projects are necessary to maintain their current market position and business model, and to continue to meet the customers' changing needs.

1 Analysis of the impact of fintech and digitalisation on the Belgian banking sector and supervision, NBB, 22 November 2018 (https://www.nbb.be/fr/articles/analyse-de-limpact-de-fintech-et-de-la-numerisation-sur-le-secteur-et-le-controle-bancaires)

3.2 Survey for payment institutions, electronic money institutions and financial market infrastructures

The survey responses from payment institutions, electronic money institutions and financial market infrastructures highlighted that, despite the introduction of new technologies and innovation in the sector, most of the clearing and settlement activities still take place on the existing payments and market infrastructures. The market infrastructures and payment institutions that took part in the survey noted that new developments in the field are aimed mainly at optimising customer relationships (front-end). Furthermore, the survey showed that the respondents observe a higher level of competition in the payments market, that puts more pressure on the margins of existing players. The sector is of the opinion that this trend is driven on the one hand by the need to improve the customer experience, and on the other hand by the arrival of the "Open Banking" concept (see section G. 4) in the market, which enables new third parties to enter the market. Finally, most of the respondents also indicated that they were closely monitoring the developments with regards to the digitisation of the financial sector.

3.3 Survey for insurance undertakings

The questionnaire the Bank sent out to insurance undertakings aimed to provide some idea of what the various existing players are thinking and to ascertain their views on the impact of InsurTech on the European and Belgian insurance markets and the main legal obstacles that could prevent Belgian insurers from implementing their strategy in that regard.

The responses that, in the short term, InsurTech[1] is seen more as an opportunity for improving the services of insurers than as an immediate threat. Insurers are preparing for the arrival of these new technologies, and the potential impact on their business model or internal organisation is generally being discussed at the level of the board of directors or the executive board. The independent audit functions are also consulted during the decision-making process, and special internal groups are being set up. The sector's primary concerns relate more to the changes needed for their business model than to the entry in the market of new market players. Insurers are also of the opinion that, in some cases, the current legislation limits the application of new technologies on consumer protection grounds.

In the medium term, the internal processes of insurers can be improved, for instance by enhancing their IT organisation, by creating new departments (e.g. data management), or by stepping up the use of robots for recurrent tasks. The claims assessment process and fraud prevention will also be improved, which in turn will have an impact on the contract premiums. Insurers expect more personalised risk coverage and hence a decline in risk mutualisation.

In the longer term, insurers generally consider that, over the next ten years, digitisation and InsurTech will play a vital role on the market in terms of product distribution, customer service, and even product design, and in risk assessment and pricing. In some cases, the changes to the way in which products are developed, priced or marketed will limit the insurers' role to that of a "risk bearer".

4. Open Banking

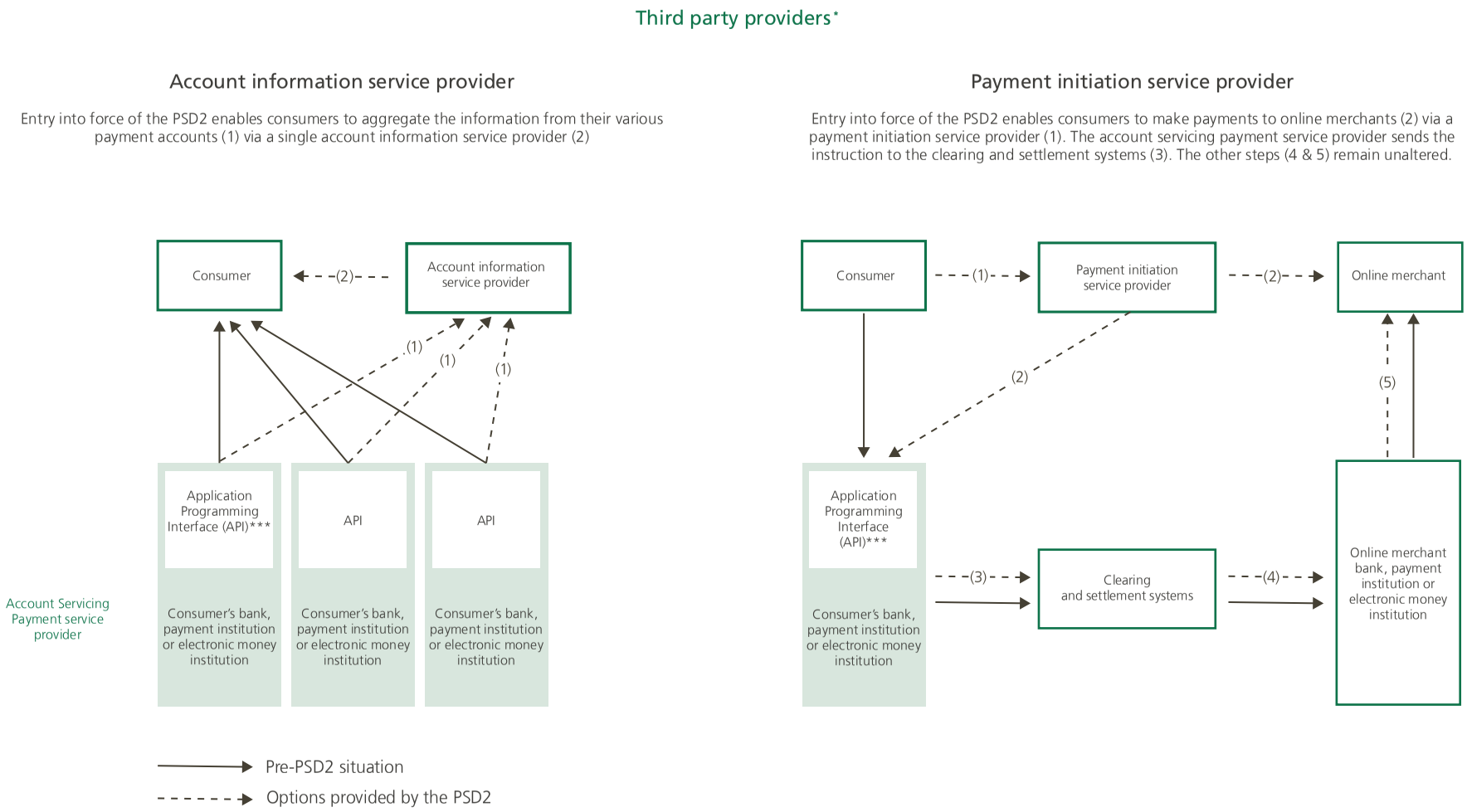
The strong development of the digitisation in the financial sector is driven in part by the transposition of the second European Payment Services Directive (PSD2)[2]. This Directive, which was transposed into Belgian law by the Law of 11 March 2018, is related to recent innovations in the payments sector and requires payment service providers to open up their payment account infrastructure (Open Banking). This should enable new players to enter the payment services market and offer payment initiation and account information services. The opening up of the payment accounts infrastructure is accompanied by strong security requirements with which payment service providers (banks, payment institutions and electronic money institutions) must comply.

1 InsurTech refers to the use of technological innovations to achieve savings and increase the efficiency of the current insurance sector model. InsurTech explores the opportunities, such as the supply of ultra-personalised policies and the use of new data flows from internet devices, for dynamic assessment of premiums according to observed behaviour.

2 Directive (EU) 2015/2366 of the European Parliament and of the Council of 25 November 2015. on payment services in the internal market, amending Directives 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation (EU) No. 1093/2010, and repealing Directive 2007/64/EC.

Chart 104

Diagram of the operational processes relating to the new payment services



Source : NBB.

(*) Third party provider: a third party may be (1) a payment initiation service provider, authorized by the Bank and subject to more limited regulatory requirements (given they do not come into possession of customers' funds), or an account information service provider, registered by the Bank (which also does not come into possession of customers' funds). Third party providers may also be banks, payment institutions or electronic money institutions.

(**) Account Servicing Payment service providers: banks, payment institutions or electronic money institutions authorised by the Bank and subject to its prudential supervision.

(***) API: Application Programming Interface.

To that end, the PSD2 introduces two new categories of payment service providers in the regulatory framework, payment initiation service providers and account information service providers. Like other institutions approved for that purpose, these two types of service provider will be able to access the payment accounts of a payment service user subject to the user's explicit consent. One of the possible applications of this change in the legal framework is the opportunity for an account information service provider to consolidate the account balance of multiple payment accounts held by an individual with multiplefinancial institutions, in one single application. For payment initiation service providers, the new regulatory framework enables them to initiate payments directly from the payment account of a user to the beneficiary. The diagram below illustrates the new business models that are made possible on the basis of the new legislative framework.

Existing credit institutions, payment institutions and electronic money institutions will also be able to offer these new services. Thanks to this new legislative framework, all these players will be able, at the request of their customers, to consult their payment accounts or initiate payments from accounts held by that customer with another financial institution. For payment service users, be they individuals or legal entities, it will thus become possible to manage all their payment accounts via a single application of just one service provider. This development should further intensify competition between financial service providers to retain their customers and acquire new ones.

Given that new types actors can obtain access to payment accounts, an important pillar of this new Open Banking landscape conssits of additional IT and security provisions that need be respected by the industry. More specifically, this concerns the application of strong customer authentication for the secure initiation and execution of payments, and the implementation of common, secure and open communication standards for the interaction between account servicing payment service providers (i.e. banks, payment institutions and electronic money institutions), account information service providers and payment initiation service providers. In order to ensure uniform application of these new regulations accross the EEA, the EBA is in charge of developing the technical standards on the subject.

Strong customer authentication requires the use of at least the following three elements which must be independent and confidential: an element that only the user knows (e.g. a PIN code), an element that only the user possesses (e.g. a payment card), and an element inherent to the user (e.g. biometric data such as a fingerprint). Given that the regulatory technical standards are both technology and business-model neutral, market players are able to develop new products that take into account these requirements. For instance, there are already payment cards that use a fingerprint instead of a PIN code for the purpose of applying strong customer authentication.

In regard to communication requirements, the PSD2 introduces the obligation for account servicing payment service providers to offer at least one interface to account information service providers and payment initiation service providers for accessing information on the payment accounts that they manage. The existing practice of third-party access without identification, referred to in market jargon as 'screen scraping' or, mistakenly, as 'direct access', will no longer be allowed once the regulatory technical standards apply, as of 14 September 2019. It is important to note that these technical standards only apply to payment accounts, in accordance with the scope of the PSD2. The standards therefore do not apply to access to accounts which are not to be qualified as payment accounts.

Entry into force of the PSD2 Directive gives new actors access to the payment services market

The development within the payments market and the Open Banking landscape will demonstrate whether the various objectives of the PSD2, such as the promotion of competition and innovation, fostering the integration of payments within the EU, and enhancing customer convenience, will be achieved.

5. Cyber risks and IT risks

5.1 Continuing rise in cyber threats and IT-related threats

The digitisation of the operational processes of the financial sector, which is already highly computerised, progressed further during the year under review. The degree of interconnectivity between

the operational processes of the various financial players also remained very high. Moreover, financial institutions are increasingly opting for business models in which IT services are outsourced according to operational or functional specialisation. The increased and more diversified digitisation of access channels for customers of financial institutions and FMIs is another factor adding to the complexity of the financial landscape and the rise in operational risk.

Throughout the world, cyber attacks are becoming ever more sophisticated and powerful, and the financial sector is one of the potential targets (see box 17). The number of targeted, long-term cyber attacks is likely to grow further in the future. Cyber attacks may come from inside or outside the institution, and the attackers may have various motives, ranging from financial theft to geostrategic espionage and sabotage, and including terrorism and activism. Cyber criminals' ability to conceal the attack in certain cases permits misappropriation over long periods, intentional disclosure, and the modification or destruction of sensitive or critical financial data.

In these circumstances, it is hard for financial institutions and FMIs to provide adequate protection against the various attacks for their IT systems and services and their electronic data. As cyber threats are evolving very rapidly, it is more important than ever to ensure that the defence capabilities of institutions and FMIs enable them to respond flexibly to the changing attack methods. In this context, solutions for gathering information on the potential threats, attackers and types of attack are vital. In addition, it is useful for financial institutions to know the customer's and/or counterparty's risk profile in order to determine the risk of fraud associated with certain transactions. In retail banking, for example, that is achieved by means of security mechanisms integrated in the internet or mobile banking application. In the case of correspondent banking activities, one example is the Customer Security Programme (CSP), set up by SWIFT to facilitate assessment of the counterparty risk.

It is more important than ever to ensure that the defence capabilities of institutions and financial market infrastructures enable them to respond flexibly to the changing cyber threats

Apart from cyber risk, the financial sector's heavy dependence on IT solutions also presents other challenges. Under pressure from innovative players, new technologies, customer expectations or growing security risks, traditional institutions are encouraged to renew their sometimes very obsolescent IT architecture, but the complexity of their IT environment makes it very hard to achieve that aim quickly and responsibly, i.e. without taking disproportionate risks. There is likewise a high risk of growing dependence on third parties for IT services and standardised IT system components. In particular, cloud solutions are increasingly being used, and for ever more important processes. The need for sufficiently representative testing of recovery solutions – which must guarantee continuity following incidents – remains another key point for attention.

It is therefore essential for the management bodies of the financial players to have the necessary expertise and information to enable them to keep a proper watch on the risks and contain them within acceptable limits. In addition, all the staff of these businesses must be aware of cyber risks and IT risks in order to understand how those risks may arise and how they are expected to respond to them.

Assessing cyber risks and IT risks and promoting their control are similarly absolute priorities for the prudential supervision and oversight of financial institutions and FMIs, with European and international cooperation becoming ever more important. Individual institutions are strongly recommended to continue stepping up their protective measures and efforts against IT risks and cybernetic risks. Due attention is also being paid to the intersectoral control strategies being devised in Belgium and abroad. These two aspects are discussed in more detail in the sections below.

BOX 17

Some examples of cyber security incidents and threats in 2018

Meltdown/Spectre: In January, vulnerabilities specific to the speculative execution technique were exposed, this technique consisting in processor optimisation which is invariably applied in (all) modern processors. Although chip manufacturers have meanwhile updated the microcode as far as possible, in order to limit the scope for exploiting these vulnerabilities, it is likely that ultimately only an adjustment to the hardware of the future processors will provide full protection. For now, the financial sector has not experienced any specific incident based on exploitation of these vulnerabilities.

Coincheck Inc: In January, it was reported that fraudsters had stolen over 500 million in XEM cryptocurrency, the currency specific to the NEM (New Economy Movement) blockchain platform. At the time of the incident, the stolen XEM cryptocurrencies represented around $ 400 million. A trading platform for these cryptocurrencies, Coincheck, was hacked.

Mexico: In May, it transpired that a number of Mexican banks had fallen victim to a cyber attack. The fraudsters had credited false accounts and then withdrawn large sums in cash. Customers' accounts were unaffected by the attack. According to the reports, the fraudsters succeeded in abusing software modules developed by the banks or third parties enabling transactions via a local Mexican interbank payment system. The local interbank payment system itself was not compromised; it was only the access points to this network in individual institutions that were affected.

Supermicro: In October, there were widespread media reports of the potential manipulation of Supermicro motherboards during the production process, which would make these hardware components vulnerable to espionage. Since these motherboards are used throughout the world in server infrastructures, the potential impact was massive. But, following an investigation, Supermicro stated that no evidence had been found to support the allegations previously publicised by the media. Nonetheless, these disclosures drew attention to the danger of cyber attacks via the suppliers of hardware, software and IT services. Earlier in 2018, the American and British authorities had explicitly warned against the danger of this type of attack.

5.2 Guidelines on cyber risk resilience

In recent years, the Bank has made a substantial contribution to the preparation of a regulatory framework aimed at improving the control of cyber risks and IT risks. On 1 January 2016, the prudential Circular[1] on the Bank's expectations concerning the operational continuity and security of systemically important institutions came into force. The Bank also made an active contribution to establishing a European regulatory framework for the management of IT risks and cyber risks under the aegis of the EBA. That work culminated in the publication by the EBA of guidance for supervisory authorities on the assessment of the ICT risk in the SREP (Supervisory Review and Evaluation Process) of credit institutions and investment firms[2], which

1 Circular NBB_2015_32 of 18 December 2015 on additional prudential expectations concerning the operational continuity and security of systemic financial institutions.

2 EBA Guidelines on ICT Risk Assessment under the Supervisory Review and Evaluation Process (SREP), May 2017.

came into force on 1 January 2018. It also led to EBA recommendations on outsourcing by financial institutions to cloud service providers . In addition, the EBA published various technical recommendations, guidelines and standards in connection with the second European Payment Services Directive (PSD2), covering cyber and IT aspects. Furthermore, the EBA is preparing guidelines on outsourcing in general and on management of ICT-related risks and security risks.

Various initiatives were also taken for FMIs in this respect. In June 2016, the Committee on Payments and Market Infrastructures (CPMI) and the International Organisation of Securities Commissions (IOSCO) published guidelines on cyber resilience[2], which are applicable immediately to FMIs. During the year under review, on the basis of these guidelines, the Eurosystem drew up the Cyber Resilience Oversight Expectations (CROE), which were finalised in December 2018 after a public consultation cycle. In May 2018, the CPMI published a strategy[2] for reducing the risk of wholesale payments fraud. This strategy proposes measures for preventing,

1 EBA recommendations on outsourcing to cloud service providers, December 2017.
2 CPMI-IOSCO, Guidance on cyber resilience for financial market infrastructures, June 2016.
3 Reducing the risk of wholesale payments fraud related to endpoint security (https://www.bis.org/cpmi/publ/d178.htm).

detecting and remedying fraud, and highlights the need for proper communication on the subject by all the public and private sector players concerned. As co-chair of the CPMI working group, the Bank made a significant contribution to that strategy. Like the other member central banks, the Bank is also working on the implementation of this strategy.

5.3 Operational activities

Cyber and IT risks are a major point of attention for the Bank in the course of its prudential supervision and oversight. In that sphere, it focuses attention on the security of individual financial institutions and FMIs and the confidence that they inspire, as well as on the sector as a whole. The approach concerning individual institutions is two-pronged. On the one hand, institutions are required to hold capital to cover their operational risks, including cyber risks and IT risks. Also, the operational security and robustness of the critical processes of financial institutions and FMIs are subject to close monitoring. The availability, integrity and confidentiality of the IT systems and data play a central role here. In 2018, the Bank conducted a number of inspections (for banks under the SSM) to check on compliance with the regulatory framework and the proper management of IT systems in relation to cyber risks and IT risks. In addition, the Bank monitors these risks in financial institutions and FMIs in the course of its ongoing and recurrent supervisory activities.

The Bank also devotes increasing attention to sector-wide initiatives. For instance, the SSM regularly conducts cross-sectoral analyses on subjects relating to IT and cybernetic aspects. In 2018, for example, it asked all the significant banks and the largest less significant banks to answer a questionnaire which should supply important information on IT aspects for the annual SREP, and will also permit cross-sectoral analyses.

In its role as the sectoral authority for application of the law on the security and protection of critical infrastructures (principally banks and FMIs), the Bank also assesses the effectiveness of the control systems of these infrastructures, organises sectoral exercises and coordinates operational incidents of a systemic nature for the Belgian financial sector.

In order to implement the recommendation of the High Level Expert Group (HLEG) on the future of the Belgian financial sector, namely to pay sufficient attention to cyber security, the Financial Sector Cyber Advisory Council (FSCC) was set up under the chairmanship of the Bank. It comprises representatives of the Centre for Cyber Security Belgium, Febelfin, Assuralia and the financial sector. The FSCC endeavours to boost the cyber resilience of the Belgian financial sector via a range of initiatives.

One practical achievement here is the establishment of an ethical hacking framework by the Bank, namely TIBER-BE (Threat Intelligence-Based Ethical Red Teaming Belgium). This programme forms the Belgian part of a methodology devised by the Eurosystem and aiming to increase the cyber resilience of individual financial institutions and FMIs by means of sophisticated tests, and to supply important observations on the cyber security of the Belgian financial sector as a whole. The Bank encourages these exercises in its capacity as the guardian of financial stability, and these tests are therefore conducted independently of its prudential supervision and oversight responsibilities.

The Bank has set up an ethical hacking framework which aims to increase the cyber resilience of financial institutions and financial market infrastructures

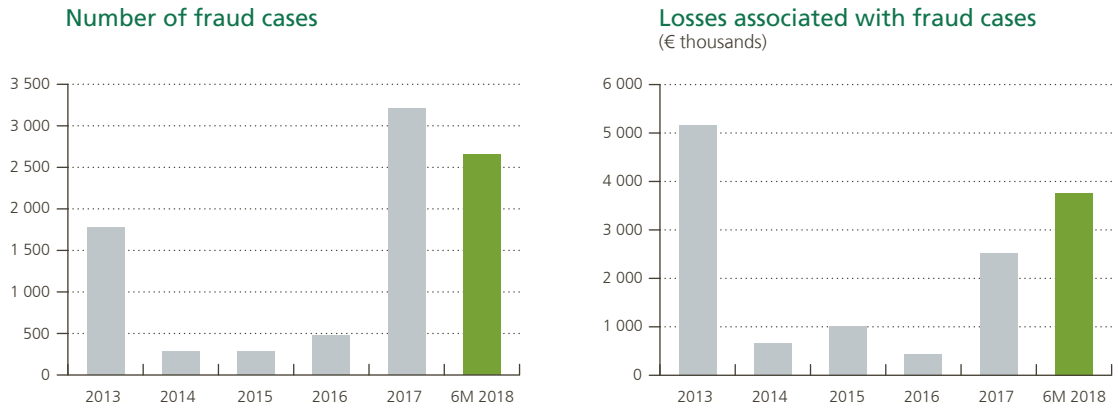
5.4 Internet banking fraud

The close cooperation with Febelfin and other parties continued in 2018 for the purpose of mapping e-banking fraud and raising consumers' awareness. The clear upward trend in the number of e-banking fraud cases apparent in 2017, and the associated financial losses, was confirmed in the first half of 2018.

As in previous years, reported cases of e-banking fraud among consumers in 2018 were due almost exclusively to fraud techniques whereby cyber criminals deceive users of e-banking into disclosing their personal security codes (usually after a telephone call or via a rogue website). The rise in fraud cases in 2017 and 2018 is therefore attributable to an increase in the number of attacks rather than the use of innovative fraud techniques.

Chart 105

E-banking fraud



Source: Febelfin.

Here, too, the Bank keeps a very close watch on the changing risks associated with the entry into force of the PSD2.

6. Developments in governance, reporting and auditors' cooperation in prudential supervision

Expertise of compliance officers

The 2016 report of the High Level Expert Group (HLEG) on the future of the Belgian financial sector contained a series of recommendations on strengthening governance in financial institutions. In 2017, it had already led to changes to the various sectoral laws, notably to enable the Bank to impose the same expertise requirements on compliance officers as those already applied by the FSMA. Consequently, in 2018, the Bank and the FSMA developed a common approach in order to harmonise more closely the requirements of the two supervisory authorities in regard to assessment of the expertise of compliance officers. These requirements were laid down in a Bank Regulation[1].

The main new point concerns candidate compliance officers having to pass an examination at a training centre accredited by the Bank and the FSMA. On 18 May 2018, the two authorities published a joint Communication[2] on this subject, setting out the procedure which institutions wishing to hold examinations must follow in submitting their application for accreditation to the two supervisory authorities. The application for accreditation must include the information permitting verification that the tests meet all the accreditation conditions (content of the questions, composition and working method of the board of examiners, practical organisation, etc.).

From now on, compliance officers and other persons responsible for the compliance function must also take part in an ongoing training programme in a training institution recognised by the FSMA on the Bank's recommendation. In that connection, on 8 May 2018 the FSMA published a Communication[3] specifying the scope of that ongoing training obligation, notably as regards the course frequency and content.

Renewal of auditors' accreditation

In view of the societal importance of financial institutions and insurance companies, auditing duties can

1 Bank Regulation of 6 February 2018 on the expertise of persons responsible for the compliance function, approved by Royal Decree of 15 April 2018 and entered into force on 1 June 2018.

2 Communication NBB_2018_19 of 18 May 2018 on applications for accreditation of examinations with a view to performance of the compliance function.

3 FSMA_2018_05 Communication of 8 May 2018 on ongoing training for officers.

only be entrusted to auditors approved for that purpose by the Bank. The Bank grants auditors accreditation for a six-year period on the basis of the Bank's accreditation Regulation of 21 December 2012[1]. No earlier than six months and no later than three months before that accreditation expires, the accredited auditor must on his own initiative apply for renewal of the accreditation for a further six-year period. The first renewal applications should arrive at the Bank during the first quarter of 2019.

In this connection, on 21 September 2018, the Bank published a Communication[2] explaining the form and content of the application for renewal of the accreditation. That Communication lists the information which the application must contain, including as regards the experience gained in the course of mandates for institutions subject to supervision (description of the mandates, assessment of the cooperation with the Bank, plan of approach for the future). The aim is to obtain specific information supplementing the accreditation application, to enable the Bank to check whether the information tallies with the records which it has created over the years in the course of a system of annual assessment of the quality of the auditor's work per mandate exercised in a supervised institution. In accordance with the accreditation regulation, the Bank has to justify any decision to refuse renewal of accreditation in regard to the expectations concerning the competence requirements and the efforts made in carrying out the assignment.

1 Bank Regulation of 21 December 2012 on the accreditation of auditors and firms of auditors.
2 Communication NBB_2018_26 of 21 September 2018 on the renewal of auditors' accreditation.

Follow-up to parliamentary recommendations

After publication of the recommendations of the parliamentary commissions concerning Optima[1] and Panama Papers[2], the Bank cooperated fully in various regulatory initiatives, notably in regard to transactions between related parties and special mechanisms.

Modification of the legal framework governing transactions between related parties was also recommended by the IMF in the 2017 FSAP (see chapter A of the "Prudential regulation and supervision" part), in order to comply with the Basel Committee's fundamental principles for effective banking supervision (principle 20 - transactions with related parties). The sectoral laws already specify that loans, credits or guarantees must be concluded on the conditions applicable to their customers and must be notified to the statutory management body and to the supervisory authority[3]. In order to implement the recommendations, an amendment to these rules was prepared, which extends both the material scope (all transactions between related parties) and personal scope (all intra-group transactions, including transactions with subsidiaries and sister companies).

In order to implement the recommendations of the two parliamentary commissions on tax evasion (special mechanisms), a working group was set up comprising representatives of the Ministry of Finance, the Treasury, the Special Tax Inspectorate, the FSMA and the Bank.

This working group tackled three subjects:

- adjustment of the legal framework concerning special mechanisms, in order to make it easier to report them to the justice system;
- updating of the list of special mechanisms, with examination of mechanisms which may be deleted from existing Circulars[4], those which may be reformulated, and those which should be added; and
- conclusion of a cooperation agreement with the Special Tax Inspectorate so that information useful for the supervision of a financial institution can be passed on to the Bank and the FSMA.

Suitability of directors and other key function holders

The prudential legislation stipulates that directors, members of the management board, those responsible for independent control functions and those effectively managing financial institutions must have the expertise and professional integrity required for their job. The assessment of the suitability of these persons is often described as the assessment of their "fit & proper" character.

In the wake of the financial crisis, the question of "suitability" has been a priority for some years and has given rise to the publication of a series of new rules, guidelines and recommendations at international, European and national level.

For instance, on 26 September 2017 the EBA and ESMA published joint guidelines on the assessment of the suitability of members of the management body and key function holders[5]. The ECB also recently published its SSM Guide to fit and proper assessments[6]. In the insurance sector, the EIOPA Guidelines on the system of governance[7] provide a reference framework for the assessment of both the individual and collective suitability of directors and those responsible for independent control functions in insurance undertakings.

In view of the proliferation of rules and guidelines on the subject, some updating and some form of codification were necessary in order to maintain

1 On 7 July 2016, a parliamentary commission of inquiry was set up, and on 28 June 2017 it published a report on the failure of Optima Bank: in this connection, see "Parliamentary inquiry into the causes of the failure of Optima Bank and the possible conflict of interests between the Optima Group and its components on the one hand, and the government on the other", Parliamentary papers, 2016-2017, Doc. 54 1938/007.

2 On 21 April 2016, a special commission on "International tax evasion/*Panama Papers*" was set up which published its report on 31 October 2017: see: "The *Panama Papers* and international tax evasion", Parliamentary papers, 2016-2017, Doc. 54 2749/001.

3 See Article 72 of the Banking Law and Article 93 of the Solvency II Law.

4 This concerns more particularly two Circulars dated 18 December 1997, namely Circular D1 97/9 to credit institutions and Circular 97/4 to investment firms, and Communication D 207 of 30 November 2001 to insurance undertakings.

5 EBA/GL/2017/12 Guidelines of 26 September 2017 on the assessment of the suitability of members of the management body and key function holders. With effect from 30 June 2018, these guidelines replace the EBA GL 2012/06 guidelines of 22 November 2012.

6 SSM Guide to fit and proper assessments, May 2018.

7 EIOPA Guidelines on system of governance of 14 September 2015, in particular guidelines 11 to 14.

a good overview of the framework applicable. On 18 September 2018 the Bank therefore published a new "fit & proper" circular[1], aimed at creating a "fit & proper" manual and transposing the aforesaid EBA and EIOPA guidelines into the Belgian prudential framework.

The aim of the "fit & proper" manual is to list all the regulatory and policy documents applicable on the subject and provide the necessary clarification. In addition, the manual contains explanations on topics not covered in themselves by specific policy documents. The manual combines an intersectoral approach with the text and references specific to the various sectors: where the manual and its basic principles are applicable to all financial institutions subject to the Bank's supervision, the relevant legal and policy texts applicable to the various types of financial institution are specified.

In terms of content, the manual is based on the guidelines listed in the 2013 "fit & proper" Circular, which was repealed when the manual was introduced. In addition, the manual develops or highlights a range of subjects. For instance, further emphasis was placed on the primary responsibility of the institutions in the assessment of suitability, and there was development of the chapters on collective suitability, continuous suitability assessment (and therefore, if necessary, reassessment of the person concerned), and the time which must be devoted to performing the duties of a director. The manual also sheds light on a range of new points concerning expertise, such as the Bank's regulation on the persons responsible for the compliance function[2] (see above). As regards propriety, the manual now explicitly states that the lack of transparency in relation to the supervisory authority and breaches of the anti-money laundering legislation, consumer protection legislation and tax legislation, are points to be taken into account in assessing the suitability of the person concerned.

Specifically for the banking sector, the manual deals with some particular points concerning the EBA guidelines and the SSM supervision. Thus, in the manual the requirements on the number of years of relevant professional experience for directors of significant institutions subject to ECB supervision are aligned with the thresholds defined in the SSM Guide. Decisions on suitability which are the responsibility of the ECB are subject to slightly longer timescales, in line with current practice. Finally, the chapter on directors' independence and the management of conflicts of interest clarifies the way in which the provisions on these subjects under the Banking Law are to be read in connection to the guidance on these topics in the EBA guidelines.

In the insurance and reinsurance sector, the 2013 rules on expertise and integrity were generally kept on in the new manual. Nonetheless, a number of points were added, notably in connection with the Solvency II rules: (i) obligation to develop a "fit & proper" policy, (ii) explicit mention of the basic theoretical knowledge expected in the field of insurance and reinsurance, (iii) listing of specific rules on the expected expertise of persons responsible for independent control functions, (iv) definition of expertise rules to be respected for "reference persons" to be appointed within the undertaking if an independent controlfunction is outsourced, and (v) the recommendation whereby, in the case of financial conglomerates in which there are significant business relationships between the bank and the insurer, the insurer's board of directors should include one independent director within the meaning of Article 526*ter* of the Company Code who does not have a seat on the board of directors of the bank and the parent company. In addition, the rules followed by the Bank in its suitability assessment were also reviewed ("fit & proper" interview, modelling of the Bank's decisions, etc.).

The question of suitability (fit & proper character) has been a national and international priority for some years

Since this manual is, in principle, an evolving document which is published on line, it will be modified regularly in accordance with new developments on the subject so that, in the future, institutions will continue to have an updated overview of the prudential framework in this area.

1 Circular NBB_2018_25 of 18 September 2018 on the suitability of directors, members of the management committee, responsible persons of independent control functions and senior managers of financial institutions.

2 Royal Decree of 15 April 2018 approving the National Bank of Belgium Regulation of 6 February 2018 on the expertise of persons responsible for the compliance function.

7. Brexit

On 29 March 2017, following the referendum on departure from the EU, the United Kingdom had initiated a procedure provided for in Article 50 of the EU Treaty with a view to leaving the EU and thus becoming a "third country". Unless a different date is specifically agreed, the whole legal framework of the EU will cease to apply to the United Kingdom from 30 March 2019. In particular, financial institutions might lose their European passport which previously conferred freedom to provide their services in every EU country.

Since May 2017, the EU and the United Kingdom have been negotiating their separation agreement in order to avoid the serious consequences of a disorderly ("hard") Brexit. Such a scenario means great legal uncertainty for current business relationships, and risks causing a sudden interruption in services which will have a serious impact on economic activity. Both parties are committed to reaching agreement, but material differences between the two camps could prevent an agreement from being concluded. If the agreement is ratified, it could include a transitional period up to 31 December 2020.

In view of the said uncertainty, the European Commission has reminded all parties concerned of the importance of preparing for a "hard Brexit" which could materialise as early as March 2019. In that context, the European supervisory authorities and the ECB have issued opinions and clarified their expectations for the financial sector. The Bank has repeatedly drawn the attention of Belgian financial institutions to the risks that would result from a "hard Brexit" by referring to the opinions published by the EBA, surveys of the sector and prudential measures in relation to the institutions concerned.

The Bank has made financial institutions aware of the risks that would result from a hard Brexit

In order to guarantee the continuity of their activities, financial institutions may need to apply to the national competent authorities for a new licence, amend certain clauses in their contracts or transfer certain activities.

The Bank notes that, overall, the level of exposure of the Belgian financial sector to British counterparties is relatively low. At the end of June 2018, those exposures totalled € 39 billion for Belgian banks, or 4 % of their total assets, and € 6 billion for Belgian insurers, corresponding to 2 % of their investments.

However, the potential impact of a hard Brexit is not confined to direct exposures, and depends both on the nature of the undertaking's activities and the level of preparation required, which varies from one institution to another.

Although they do not provide services for customers directly in Britain, many institutions could be affected via contracts concluded with British counterparties. For example, there is legal uncertainty over the possibility of making changes or exercising certain options under existing over-the-counter derivative contracts which are not handled by a clearing house (central counterparty, CCP). To reduce that risk, institutions should check the cases in which authorisation has to be obtained from the competent national authorities (the FSMA in Belgium and the Financial Conduct Authority in the United Kingdom). Moreover, bonds issued by Belgian banking institutions but governed by British law might not be eligible for a bail-in, so that certain changes would need to be made to the issuance contract clauses.

British CCPs perform a critical role for the European financial market, as they clear more than 90 % of the transactions in interest rate derivatives in Europe. At present, British CCPs are subject to the European Regulation on over-the-counter derivatives (European Market Infrastructure Regulation, EMIR). They risk losing their licence to effect clearing of these products in Europe. The massive and sudden interruption of the clearing services of British CCPs could cause serious instability on the financial markets. In order to reduce the dependence of European financial institutions on British CCPs, the European authorities are encouraging them to establish access to CCPs based in the European Union, outside the United Kingdom. However, to avoid serious disruption to current activities, the Commission will grant a temporary licence extension to British CCPs. With a view to improving the regulation of the activities of systemically important CCPs based in third countries, including – after Brexit – the United Kingdom, the European Commission envisages modifying the EMIR Regulation to give greater power of supervision of those entities to the European Financial Markets Authority.

A number of Belgian banks provide banking services in the United Kingdom. The Bank has asked them to contact the British authorities in order to ensure the continuity of those activities. They must also inform their customers in time, notably if the services are modified or terminated.

Similarly, in order to ensure the continuity of their commitments to British customers, some Belgian insurers need to establish a British branch or subsidiary. Establishment of such an entity is subject to the approval of the British authorities and the Bank's non-objection.

In the wake of Brexit, British insurers are liable to lose their right to offer protection to customers in the European Economic Area (EEA). In that context, some British insurance companies have already begun setting up subsidiaries in Belgium. Having an establishment in Belgium will also enable them to pursue their activities in other countries of the European Economic Area, either under freedom to provide services, or via branches. In addition, insurers must ascertain that they can still settle claims under existing insurance contracts held by EU customers. Many of them have already taken steps to transfer their contracts to an EU-based entity. That takes time, because it requires not only the approval of the national prudential supervision authorities in the EU and the United Kingdom, but also the approval of the British Court of Justice.

The same applies to British payment institutions, electronic money institutions and investment firms, which will lose their passport, essential for continuing to do business with their customers in the EU. To guarantee the continuity of their services in Belgium and the EU, a number of institutions have

applied to the Bank for approval or are considering doing so.

The Bank's prudential supervision teams have conducted numerous dialogues with Belgian financial institutions, which have evidently made good progress in identifying the risks and preparing for the potential consequences of a hard Brexit. The Bank is likewise in discussions with institutions which are considering modifying their structure or wish to establish a branch or subsidiary in Belgium to offer services to EU customers.