Financial Stability Report 2021

National Bank OF BELGIUM
Eurosystem

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Macroprudential Report

Introduction

The Bank was officially designated as Belgium's macroprudential authority by the Law of 25 April 2014. Under that mandate, the Bank keeps a close watch on developments in the financial sector and focuses in particular on detecting any risks that could endanger the stability of the financial sector. When such systemic risks arise, the Bank is mandated to take the necessary macroprudential measures to prevent the continuing development of those risks and reduce the financial sector's vulnerabilities and exposure to those risks. These measures include not only the use of instruments for which the Bank is directly responsible, but also the publication of recommendations to other authorities that have the power to implement certain specific provisions. In its *Macroprudential Report*, which is published annually, the Bank explains how it has fulfilled its mission of ensuring the stability of the financial system.

This *Macroprudential Report* provides an overview of the Bank's macroprudential policy in the context of the economic and financial policy measures adopted in response to the COVID-19 crisis. Developments specifically related to the financial sector's operating environment and to the banking and insurance sectors are examined in detail in the *Financial Stability Overview* of the *Financial Stability Report 2021*.

The current crisis weighs heavily on the growth of economies throughout the world, significantly disrupting the financial sector's operating environment. While the measures taken from the outset of the crisis at fiscal and monetary policy level, as well as at (macro)prudential level, have helped to limit the magnitude of the shock on the real economy and, consequently, on the financial sector, there is still a degree of uncertainty as to the final impact of the crisis. In this still uncertain context, the financial sector should play a decisive role to support the economic recovery, in particular by using the increased room for manoeuvre provided by the prudential measures. Macroprudential policy has undergone a paradigm shift, switching from a preventive and gradual build-up of capital buffers to a crisis mode focused on using these buffers. This helped to provide the financial sector with the necessary room for manoeuvre to support the economy.

The first chapter of this Report examines the responses to the COVID-19 crisis, focusing specifically on the prudential measures and on the financial sector's current and future role in resolving the crisis, particularly given the substantial capital buffers available. The second chapter presents an overview of the macroprudential policy in Belgium and provides forward guidance on the various instruments available to the Bank. Finally, the Report closes with a summary of its main findings and of the macroprudential recommendations for the financial sector and the prudential authorities.

1. Responses to the COVID-19 crisis

In view of the unprecedented scale of the coronavirus crisis, the monetary, fiscal and prudential policy response has been swift and vigorous.[1] These measures were not only decisive but also mutually strengthened each other to support the economy, on the one hand by mitigating the liquidity needs of companies and households and, on the other, by tempering potential solvency problems. Although the impact of the crisis has been very heavy, the response of the different policies concerned has helped avoid the collapse of entire segments of the economy.

1.1 Fiscal policy

Fiscal policy was mainly characterised by a series of measures providing direct support to the real economy. These different measures were adapted to the evolution and persistence of the COVID-19 pandemic. The progress of a selection of fiscal measures adopted in Belgium is presented below and illustrated in Chart 1.

As regards the workers, the temporary lay-off scheme for salaried employees and the bridging allowance for self-employed workers played a key role. These two schemes already existed before, but their eligibility criteria were quickly relaxed and the amounts of certain benefits increased, which helped make them two of the main stabilisation mechanisms in this crisis. Given the ongoing nature of the pandemic, these two schemes were extended several times, although their eligibility conditions have become more targeted since September 2020. In addition, between June and December 2020, a bridging allowance was also implemented to help self-employed workers in specific sectors relaunch their activities. Authorities also took other measures to supplement the existing toolkit. For instance, the gradual decrease of unemployment benefits was suspended, some benefits were increased, etc. All in all, households did not suffer any reduction in their purchasing power at macroeconomic level, although some of them undeniably experienced a severe impact.

As for the companies, their extensive use of temporary lay-offs enabled them to cut their wage bill without having to make staff redundant. Furthermore, the Regions paid allowances to businesses which were forced to close or which suffered a large loss of turnover. The government also took measures to support and/or restore the solvency of companies and to ensure the continuity and financing of their activities in the longer term. Finally, there were specific support measures for some sectors of activity. Despite substantial state aid, the gross operating surplus and the disposable income of companies both deteriorated in 2020, resulting in a particularly acute need for liquidity. To alleviate this shortage of liquidity for the companies, but also the households, an important role fell to the financial sector in particular.

First, the financial sector immediately granted payment deferrals (moratoria) on repayments of loans to non-financial corporations and self-employed workers, as well as to mortgage borrowers suffering payment problems as a result of the coronavirus crisis. Initially, payments for loans to companies and individuals could only be deferred by a maximum of six months. However, when it became apparent that the crisis would last longer than expected, the payment deferral option was extended, first to the end of 2020 and then for an extra three months maximum, provided the total deferral does not exceed nine months. At the beginning of February 2021, in light of the ongoing pandemic and to avoid terminating such an important support measure too abruptly, it was decided to extend the moratoria between March and June 2021, also for companies that had already reached the above-mentioned limit of nine months, on condition that these companies met certain viability criteria.

These moratoria for companies and households were extensively used: by the end of September 2020, they had been applied to 13 % of outstanding business loans and 6 % of outstanding mortgage loans, respectively. By the end of April 2021, however, use of these moratoria had dropped to 2.1 % for companies and 0.4 % for

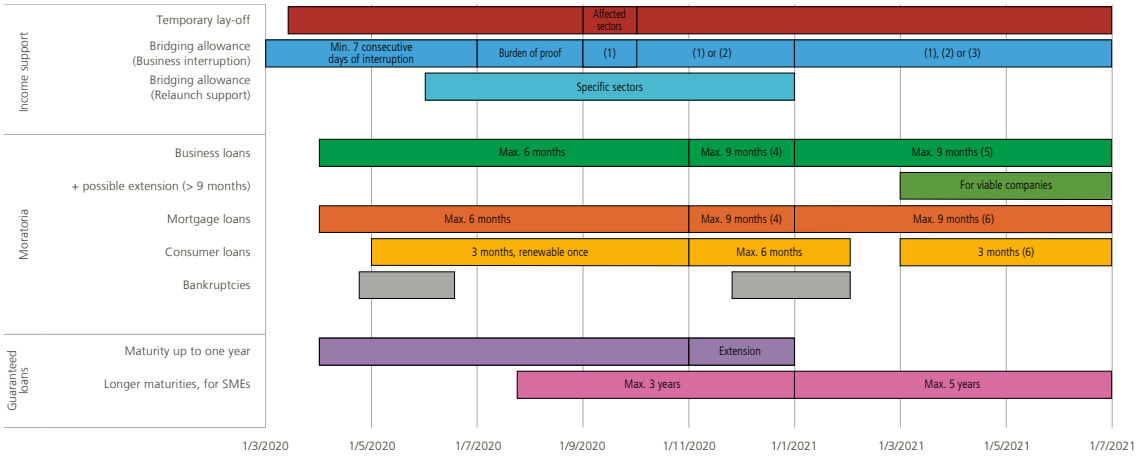
1 The fiscal and monetary policy response is examined more in detail in the Bank's *Annual Report 2020*.

mortgage borrowers. Additionally, private borrowers affected by the coronavirus crisis were given the possibility to defer their repayments on consumer loans, first between May 2020 and January 2021 and then between March and June 2021.

The federal government also activated two guarantee schemes for new loans and credit lines granted to businesses by the banks. The first guarantee scheme initially covered loans granted between March and October 2020, but was eventually extended until the end of December 2020. It covered loans with a maximum term of 12 months to viable non-financial corporations, SMEs, self-employed workers and non-profit organisations. It was obligatory for eligible loans to be covered by this scheme. The second guarantee scheme was set up in July 2020 and originally ran until the end of 2020, before it was extended until the end of June 2021. At first, it covered new loans with a term of between 12 and 36 months to non-financial SMEs, but the maximum term of these loans was subsequently increased to five years starting from January 2021. Unlike in the first scheme, banks could choose whether or not to apply the State guarantee to eligible loans. The use of State-guaranteed loans has remained relatively limited thus far. This could indicate that other support measures and bank lending outside the scope of the guarantee mechanism met the liquidity needs of most companies in 2020. The three regional governments also increased the coverage capacity of their own guarantee funds.

Chart 1

Federal measures providing direct support to the real economy



Source : NBB.
1 If quarantine.
2 If forced closure.
3 If decrease in sales higher than 40 % (annual basis).
4 If application before 20/9.
5 If application before 31/3.
6 If application before 21/3.

Faced with a growing risk of bankruptcies, the authorities twice implemented a moratorium on business bankruptcies during the first and second wave of the pandemic. All in all, the combination of these different support measures helped to limit the number of actual bankruptcies. Moreover, this number has decreased in 2020 compared to 2019.

1.2 Monetary policy

Monetary policy also provided a decisive response to the crisis. During the initial phase of the coronavirus crisis, a panic reaction had driven up market financing costs. As ensuring sufficient liquidity in the financial system helps limit the impact of adverse macroeconomic or macro-financial shocks on the economy, central banks responded quickly, focusing on three main objectives: stabilising the financial markets, easing financing conditions and supporting lending to companies and households.

Before the coronavirus crisis began, the European Central Bank (ECB) was already conducting a highly accommodative policy. Although the remaining room for manoeuvre looked rather limited at the outset of the crisis, the Eurosystem actually responded very vigorously. Securities purchases constitute the main instrument for achieving the first two objectives, namely stabilising the financial markets and easing financing conditions. Most of these purchases took place under the Pandemic Emergency Purchase Programme (PEPP), which was launched on 18 March 2020. Thanks to the PEPP, the sudden tightening of conditions on the financial markets in the initial phase of the coronavirus crisis was completely negated. This programme for purchasing assets, particularly government bonds, allowed all euro area countries to enjoy flexible financing conditions, thus reducing the risk of divergent developments. As the financial markets were stabilised, the ECB's Governing Council indicated that the PEPP purchases would be focused on maintaining favourable financing conditions. In March 2021, it was announced that these purchases will be conducted at a higher pace in the second quarter of 2021.

Since the private sector in the euro area is financed primarily through the banks, support for bank lending to households and companies has been the Governing Council's third main objective from the outset of the crisis. The key instrument for that purpose was the easing of conditions for the targeted longer-term refinancing operations (TLTROs). Demand for bank funding through TLTROs was particularly strong, as a result of which banks were better able to meet the demand for credit from companies during the first wave. Furthermore, there was no increase in the interest rates charged to businesses and households in 2020 or in the first months of 2021.

1.3 Prudential policy

The prudential regulators and supervisors support this active fiscal policy and accommodative monetary policy by creating additional and sufficient room for manoeuvre for the financial sector, especially the banking sector, to allow it to continue playing its financial intermediation role, and by ensuring access to credit.

In the context of the COVID-19 pandemic, certain elements of the regulatory capital requirements were therefore eased to provide banks with sufficient free capital to support lending and absorb the losses caused by the crisis. On the one hand, the Belgian banks' microprudential supervisory authorities – the single supervisory mechanism (SSM) for significant institutions and the Bank for less significant institutions – freed up capital totalling around € 4 billion by allowing credit institutions to use the capital they had previously reserved to meet the Pillar 2 Guidance (P2G). Credit institutions were also given the possibility to use their capital conservation buffer and to compose the capital components for their Pillar 2 requirements (P2R) in a more accommodative manner. Moreover, credit institutions could operate temporarily with a liquidity coverage ratio below the regulatory limit. On the other hand, the macroprudential countercyclical capital buffers, which had been activated in Belgium and several other European countries before the outbreak of the health crisis, were very quickly cut back to 0 %. This provided the Belgian banks with around € 2 billion in additional capital. These countercyclical capital buffers are temporary buffers that are built up during the upward phase of the credit cycle in order to generate sufficient absorption capacity to enable banks to cover credit losses in the downward phase of the cycle.

Easing the capital requirements is only useful if the freed up capital is actually kept at the disposal of the banks to absorb losses or support lending during these troubled times. To ensure such consistency, the European banks

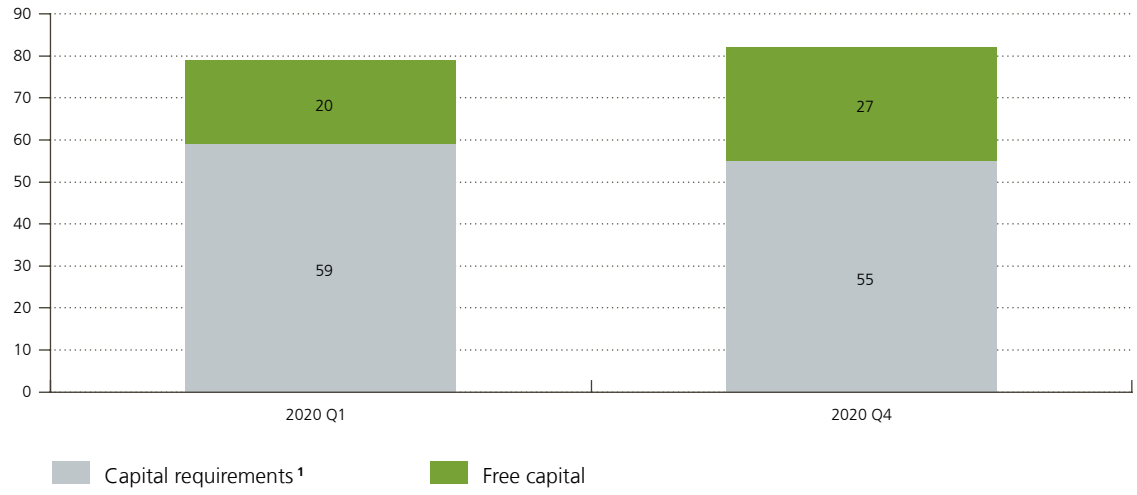
(and insurance companies) were asked, through micro- and macroprudential recommendations, to defer any dividend payments in 2020 and not pay out any or exercise extreme caution when going ahead with them in the first nine months of 2021.

Unlike the great financial crisis of 2008, the Belgian banking sector had a favourable starting position in 2020, particularly in terms of solvency and loss absorption capacity. Owing to the first set of prudential measures introduced since the outset of the crisis, such as the possibility to use P2G capital and the release of the countercyclical buffers, the Belgian banks had access to over € 20 billion in usable capital at the end of March 2020 [1]. In part due to the implementation of restrictions on dividend payments, this available capital grew to € 27 billion in the fourth quarter of 2020.

Chart 2

Belgian banks' own funds

(in € billion)



Source: NBB.
1 P2G excluded.

Belgian banks have ample free capital buffers and can therefore serve as a key lever to address and resolve the crisis by supporting the real economy and the economic recovery. However, the success of the prudential measures increasing the banking sector's room for manoeuvre depends on their use by the banks.

To date, the banks have played an important role in the context of the COVID-19 pandemic, in particular by granting various moratoria which have supported the liquidity position of numerous households and companies. Furthermore, at the outset of the crisis, many borrowers took out new bank loans to fund temporary, limited shortages of liquidity, which led to a sharp rise in lending to non-financial corporations (over 6 % growth in March and April). Subsequently, lending to Belgian companies gradually shrunk to a growth rate of 1.7 % in February 2021. In March, the growth rate turned negative (–0.2 %) due to a base effect related to the temporary acceleration in March 2020 (see the Financial Stability Overview for more details on credit developments).

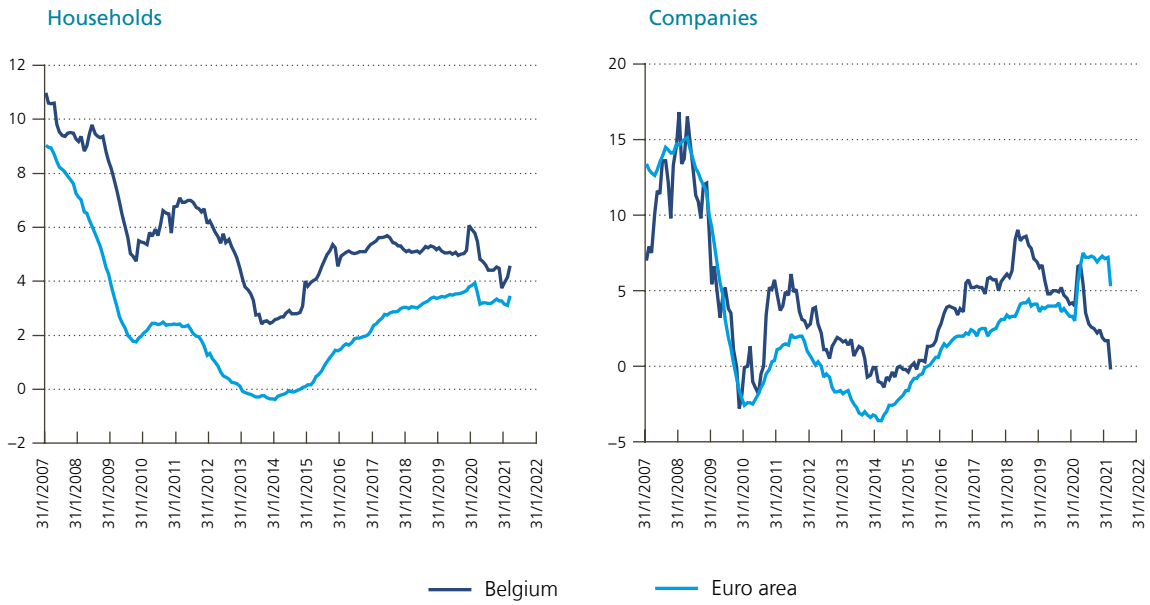
1 This amount includes the capital reserved for P2G. The SSM has announced that it does not expect banks to operate above the level of their P2G before the end of 2022.

However, mortgage lending remained steady, despite lockdown-related restrictions regarding property visits in particular. The coordinated and efficient response of the different policies has so far significantly limited the impact of the crisis on the quality of Belgian banks' loan portfolios. Although these banks recorded more than € 3 billion in loan loss provisions in 2020, mainly to anticipate future losses, they recorded positive net profits, sustaining their solvency position.

Chart 3

Lending to the real economy

(annualised percentage changes)



Source: NBB.

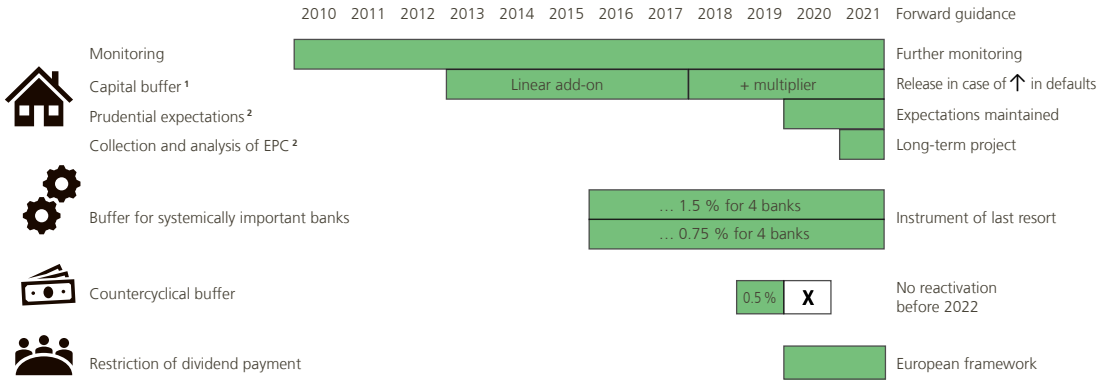
Banks will continue to have a key role to play in the future, as support measures are reduced or terminated in 2021. They will be needed to support the economic recovery by ensuring that eligible companies maintain sufficient access to credit, in particular by using the guarantee mechanism. Despite the continuing uncertainty regarding the evolution of the pandemic and its influence on the economy, banks should moderate any reluctance to use the available capital buffers so as not to compromise the vigour of the economic recovery, particularly by proposing sustainable financing solutions to viable but over-indebted companies (payment deferrals, debt restructuring, etc.). In this context, it is important that banks also maintain a realistic view of their financial capabilities by systematically building up banking provisions in line with potential credit losses that could occur with some delay, especially after the tightening or expiry of certain support measures.

2. Macroprudential policy

The outbreak of the COVID-19 crisis caused a shift in the macroprudential policy stance, which has switched from the preventive and gradual accumulation of capital buffers to a crisis mode focused on using the buffers that have been built up. In normal, non-crisis mode the Bank monitors developments on the various markets, detects any build-up of potential vulnerabilities or systemic risks, and if necessary takes a range of preventive macroprudential measures to strengthen the financial sector's resilience and/or to limit the build-up of systemic risks in the economy. In a crisis situation, the banks' room for manoeuvre could be eroded to the point where the banking sector would be forced to reduce its credit supply for example. Macroprudential policy seeks to avert such procyclical behaviour, which is inherent in the financial system.

Chart 4

The Bank's macroprudential policy



Source : NBB.
1 All loans.
2 New loans.

Macroprudential policy has contributed to increase the banks' room for manoeuvre and aims to ensure the continuity of their crucial financial intermediation role. The Bank has taken some measures to this effect from the outset of the crisis in 2020 and has also indicated that it is prepared to take further action if necessary.

As part of its macroprudential mandate, the Bank pays special attention to developments on the Belgian real estate market. This close monitoring, which was started in the early 2010s and included a detailed and regular survey of banks' and insurance companies' mortgage portfolios, remains indispensable in the current context, particularly in view of the high exposure of financial institutions and the persistent vulnerabilities such as the presence of pockets of risk in mortgage loan portfolios. So far, the Bank has not seen any signs of increasing tensions on the Belgian housing market, which held up well in the first months of the coronavirus crisis. Although the abolition of mortgage tax relief in Flanders and the lockdown restrictions weighed on the number of transactions and loans, the mortgage market remained dynamic in 2020. The amount of new mortgage loans granted in 2020 (excluding refinancing) stood at some € 42 billion, a figure that is certainly down on the exceptional year 2019 but at a similar level to that observed in 2018.

The Bank is prepared to release the macroprudential capital buffer for real estate risks in case of a materialisation of those risks, leading for example to a substantial increase in payment difficulties for mortgage borrowers, in particular in the context of the expiry of the moratoria. This buffer was introduced in 2013 to ensure that banks have the necessary resilience in the event of a shock affecting the housing market or a steep rise in unemployment. This capital buffer, which amounts to around € 2 billion for the banking sector as a whole, could in such cases not only be used to absorb losses due to payment defaults, but also to proactively provide sustainable solutions to over-indebted customers that are severely affected by the crisis. This would reduce the risk of a crisis in the housing market due to a sharp rise in payments defaults and evictions.

In order to ensure that this buffer can be released at the right time and can effectively serve the above-mentioned purposes, the Bank extended this measure, which would otherwise have expired at the end of April 2021. This one-year extension, which was approved by the European Commission, was the subject of a new Royal Decree published on 8 March 2021 [1].

1 Royal Decree of 28 February 2021 approving the regulation of the National Bank of Belgium of 22 December 2020 on additional capital requirements for macroprudential risk related to exposures secured by collateral on residential property located in Belgium.

At the end of 2019, the Bank had published, in addition to the above-mentioned capital requirements, specific recommendations for banks and insurance companies, referred to as "prudential expectations", applicable from 1 January 2020 onwards, regarding credit conditions for new mortgage loans. Financial institutions are thus invited to be more cautious in granting mortgage loans, particularly those with a high loan-to-value (LTV) ratio, while ensuring that credit remains available for solvent borrowers. The application of prudent credit conditions will eventually lead to a gradual reduction in the risky subsegments of Belgian banks' mortgage portfolios. These "prudential expectations", which aim to avoid any further increase in risk in mortgage loan production, which would, after some time, result in an increase in risk in the total portfolio, were maintained in the context of the COVID-19 crisis.

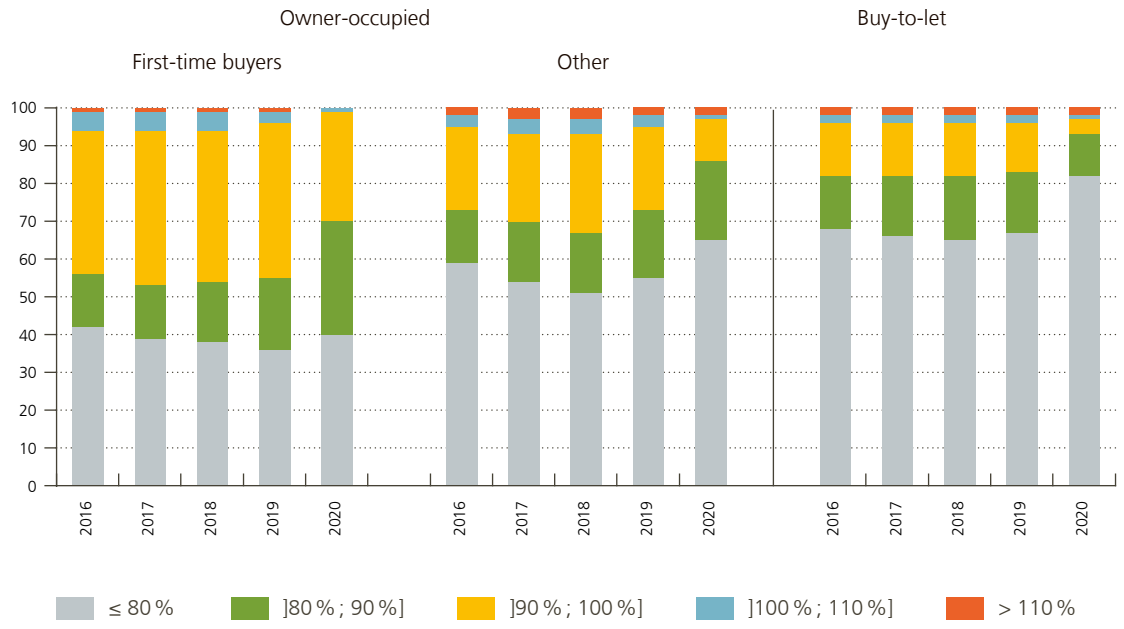
The sector acted on these expectations of the Bank, as evidenced by the data for the year 2020, which show a marked improvement in the risk profile of new mortgage loan production. The proportion of loans with an LTV ratio above the 90 % reference threshold applied by the Bank, fell from 45 % in 2019 to 30 % in 2020 for first-time buyers and from 28 % to 14 % for other owner-occupied loans. These percentages thus dropped below the tolerance margins set by the Bank, according to which 35 % and 20 % respectively of these two types of new mortgage loans can have LTV ratios above the 90 % threshold.

With regard to first-time buyers, data from the Central Individual Credit Register show that the proportion of loans granted to borrowers under the age of 35 in total new loans has remained stable in the past few years, declining only marginally in 2020 to 35 % (compared to 36 % in 2019). This share has declined somewhat more sharply at some banks. Others, probably less constrained by the Bank's new standards, have, however, been able to take over the role of these banks. All in all, while the COVID-19 crisis and its consequences for the economy may have led some (young) borrowers to postpone their real estate projects, the Bank's prudential expectations seem to have achieved their twofold objective of reducing the share of riskier loans in the new mortgage loan production and maintaining access to credit for solvent borrowers, including first-time buyers.

Chart 5

The Bank's prudential expectations for new mortgage loans in Belgium

(breakdown of new mortgage loans by LTV ratio, in % of total)



Source : NBB.

For loans taken out to acquire immovable property for rental purposes, which is considered riskier, the Bank has set a lower reference threshold and a lower tolerance margin. The proportion of such loans with an LTV ratio exceeding the 80 % threshold fell sharply from 33 to 18 %, which is still above the Bank's 10 % tolerance level.

At the end of April 2021, individual financial institutions were, for the first time, required to certify to the Bank that they complied with these prudential expectations or, where appropriate, to justify why they did not comply with them, in particular with regard to the production of buy-to-let loans. This first compliance report covered the production of the second half of 2020. The Bank will critically analyse the responses provided by all institutions subject to this close monitoring of compliance with the prudential expectations, in particular the reasons given for exceeding the margin of tolerance for the segment of loans taken out to acquire immovable property for rental purposes.

Also with regard to the real estate exposures of Belgian financial institutions, the Bank published a new circular[1] at the end of 2020 detailing its expectations and data requests regarding the integration by the financial sector of energy efficiency of real estate exposures in the management of climate change risks. Future measures to meet greenhouse gas emission reduction targets, including for the housing stock, while necessary, may also entail risks for the financial sector, especially if they are introduced abruptly. Such measures could have an impact on borrowers' repayment capacity and on the value of (real estate) collateral taken by the financial sector. Financial institutions should therefore promptly collect the data needed to assess these future risks.

As macroprudential authority, the Bank also imposes specific capital requirements on so-called domestic systemically important banks in order to enhance their resilience, taking into account the high economic and social costs of their failure. The list of these banks, that is published annually[2], includes eight banks. The capital surcharge imposed depends on the importance of the bank. It amounts to 0.75 % of riks-weighted assets for four of them and 1.5 % for the other four. These buffers, that were introduced gradually from 2016 onwards, are relatively large : at the end of 2020, they totalled more than € 5 billion for the Belgian banks concerned. Given their structural nature, their release should however be considered as a macroprudential measure of last resort in the event that additional leeway is needed.

As mentioned above, in March 2020, the Bank, like many other macroprudential authorities, released the countercyclical capital buffer that had been activated (at a level of 0.5 %) in Belgium in 2019 in response to the acceleration of the financial cycle observed at the time. In doing so, the Bank, in anticipation of the impact of the crisis on loan portfolios, aimed to maintain the resilience of the banking sector and to ensure the continuity of financial intermediation. Based on current projections and risk assessments, the Bank expects not to increase the countercyclical capital buffer until at least the first quarter of 2022.

In addition to the microprudential authorities' recommendations to the financial sector to suspend dividend payments in 2020 and not to pay dividends or to reduce dividend payments, thereby acting with great caution, in the first nine months of 2021, the Bank stressed the importance, at the macroprudential level, of exercising caution in dividend distribution policy. It specified that these recommendations, which aim to ensure that financial institutions maintain sound capital buffers, apply to all Belgian credit institutions and insurance companies, including subsidiaries of international groups. As these recommendations are based on a recommendation of the European Systemic Risk Board[3] (ESRB), the Bank's policy in this area after the end of September 2021 will depend in particular on the decisions taken at European level.

1 Circular NBB_2020_45 / Collection and reporting of information on the energy efficiency of real estate exposures.

2 See https://www.nbb.be/en/financial-oversight/macroprudential-supervision/macroprudential-instruments/other-systemically.

3 Recommendation of the European Systemic Risk Board of 15 December 2020 amending Recommendation ESRB/2020/7 on restriction of distributions during the COVID-19 pandemic (ESRB/2020/15).

3. Conclusions and recommendations

The COVID-19 crisis has had a significant impact on economic growth. While the fiscal, monetary and (macro) prudential policy measures taken at the outset of the crisis have so far limited the extent of the shock affecting the real economy, it is now up to the financial sector, whose room for manoeuvre has been greatly increased and which holds ample free capital, to decisively support economic recovery.

The financial sector, first and foremost the banking sector, should continue to provide the necessary loans, or even increase its lending to solvent borrowers, if necessary by using the guarantee mechanisms set up by the public authorities. It is also important that the available capital buffers are used for rapid and full recognition of losses. The previous financial crises have shown the importance of such rapid recognition of losses and rapid removal of unrecoverable losses from the system in shortening the duration of the crisis and supporting economic recovery. The dynamism of this recovery will depend in particular on the extent to which banks will offer sustainable solutions to viable but over-indebted companies, such as forbearance or partial debt cancellation. Such proactive behaviour may also help to avoid any undue macroeconomic shocks, for example in the form of increased corporate bankruptcies and payment defaults, which would ultimately be detrimental to the financial sector itself. In view of the persistent uncertainty about the final impact of the crisis, it is also recommended that the financial sector adopt a cautious dividend distribution policy in the future, including after the end of September 2021, when the current prudential recommendations on dividends expire.

In addition to the attention required for the short-term implications of the COVID-19 crisis, the financial sector should continue to pay sufficient attention to the important longer-term structural challenges. For example, the lasting low interest rate environment coupled with strong competition on some markets remains an important challenge for the profitability of banks and insurance companies, and the viability of some business models and the adequacy of current cost structures needs to be reassessed. The climate transition creates new challenges and opportunities for financial institutions. Prudential supervisors are taking various initiatives to prepare the financial sector to take better account of climate change risks. These initiatives relate in particular to the so-called "pillar 3" aspects, i.e. disclosure of risks incurred, and "pillar 2" aspects, which relate more specifically to the internal management of these risks. In addition, the transition to a more digitalised economy, which is already underway, will gain further momentum in the future, and it is essential to make full use of the opportunities associated with it, for example with regard to customer service and cost management, while at the same time taking sufficient account of the associated (cyber) risks. Finally, the monitoring of compliance with the provisions on the prevention of money laundering and the fight against terrorist financing is receiving increased attention from the supervisory authorities, in line with society's legitimate expectations in this area. Financial institutions should take due account of the increasing requirements relating to compliance with these rules.

The prudential authorities will, for their part, have to communicate the trajectory and timetable for banks to rebuild the capital buffers used. Given the size of the free capital buffers, prudential authorities' efforts should focus in the short term on encouraging the use of these buffers.

In the medium term, useful lessons should be drawn from the crisis, in order to adapt the regulatory framework for capital requirements where necessary. At present, it is probably too early to draw definitive conclusions on the functioning of this framework, in particular because most of the credit losses have yet to materialise. Nevertheless, it will be relevant to carry out an assessment of the capital requirements, including the allocation between (counter-)cyclical and structural buffers, and to ensure that the necessary incentives are given to the financial sector to make effective use of the free or released capital.

For non-bank financial institutions, the COVID-crisis also contains a number of lessons. The vulnerabilities that came to light in non-bank financial intermediaries, such as investment funds, will have to be addressed. The National Bank attaches high priority to strengthening the regulatory framework for these institutions,

notwithstanding the fact that Belgian investment funds withstood the COVID-shock well. Developments in the non-banking financial sector can also have a major impact on the banking sector, as shown by the recent events concerning Greensill and Archegos. Again, the key is to learn the right lessons, re-examine the risks of interconnections between banks and non-banks and evaluate the need for additional regulation.

Financial Stability Overview

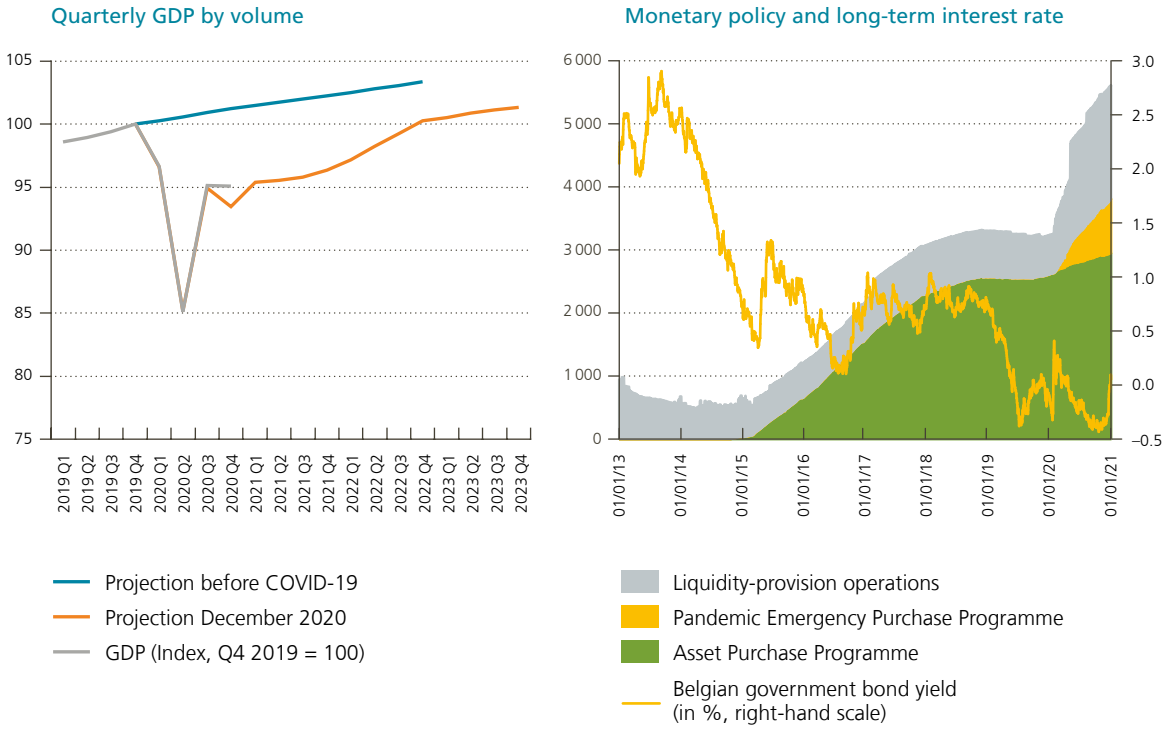
1. Non-financial private sector and real-estate

The operating environment for the Belgian financial sector continues to be dominated by the consequences of the coronavirus pandemic and the sanitary measures required to contain it. A combined fiscal, monetary and prudential policy response to this external shock prevented a negative spiral in the economy and the disappearance of a large number of intrinsically viable businesses and jobs. The loss of economic activity was, nonetheless, considerable and was borne in particular by (employees of) the services sectors facing the tightest restrictions, such as hotels and restaurants, contact-based professions, the events and cultural sector, retail shops considered "non-essential", and travel and aviation businesses. However, few sectors were entirely spared of the economic fallout from the sanitary crisis, and overall economic activity remains well below the (projected) pre-crisis levels (Chart 1). Public debt rose sharply as fiscal policy absorbed a very large share of the negative income shock so as to preserve the economic fabric.

Chart 1

GDP and monetary policy

(in € billion, unless otherwise stated)



Sources: ECB, Refinitiv, NBB.

The speed and strength of the economic recovery will depend in the first place on the effectiveness of the vaccination process to contain the virus. It will also require a successful management and resolution of the solvency problems that have accumulated in parts of the non-financial private sector so that major cliff effects can be avoided when policy support measures phase out and restrictions are lifted. How this recovery phase is managed is likely to be as important as the initial policy response focused on stabilisation. A quick and sustainable return to increased economic activity will prevent further worsening of the solvency problems in the non-financial private sector. It will also help to ensure the sustainability of the significantly higher public debt at a time when the cost of population ageing becomes increasingly apparent.

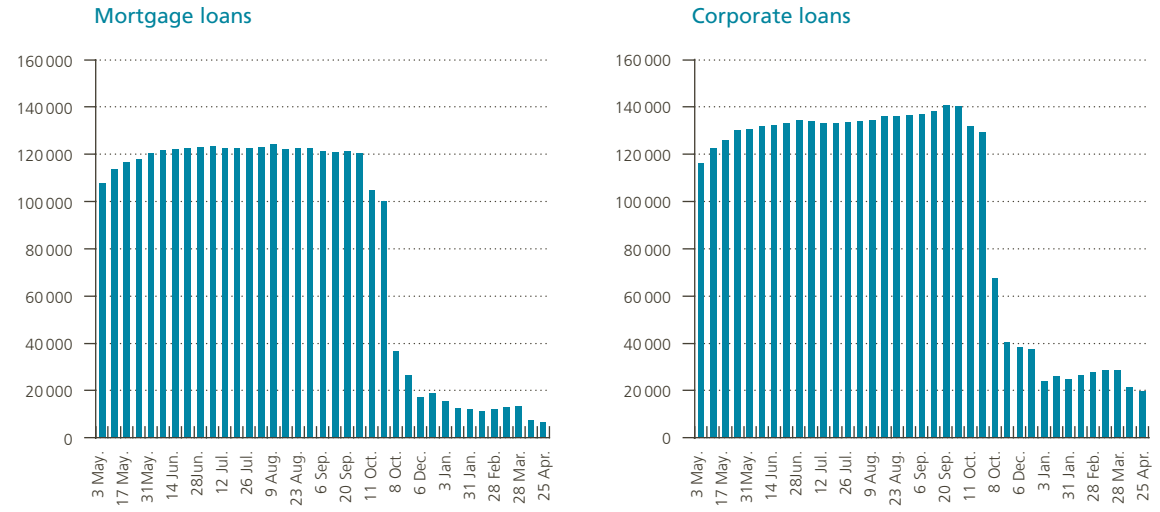
The Belgian financial sector has sufficient resources to contribute dynamically and pro-actively to this economic recovery, without jeopardising financial stability. Prudential authorities released ample capital and liquidity buffers at the outset of the pandemic and granted banks additional scope for using these to help transmit the monetary and fiscal support measures to the non-financial private sector. As discussed in more detail in section 2 of the Macroprudential Report (MPR), Belgian banks benefited in this way from a € 6 billion regulatory capital release in order to support lending to the economy and help absorb the losses caused by the crisis.

In the first phase of the sanitary crisis, loans and moratoria granted by the Belgian financial sector helped numerous clients manage the liquidity shock caused by the abrupt and considerable – if not complete – halt of business during lockdowns. Large multinationals made extensive use of existing lines of credit with Belgian banks in March and April 2020 to strengthen their liquidity position and compensate for the decline in turnover. They then began to repay these loans as the economic situation improved and access to alternative funding sources in financial markets was restored. As market financing is not an option for SMEs, these firms rely mostly on the banking sector for external debt financing. Bank loans to SMEs did indeed grow gradually and steadily after March 2020. When lending to large corporations is taken into account, the Belgian banking sector's overall lending to the Belgian non-financial corporate sector, however, showed a deceleration in the annual growth rate, from 4 % in February 2020, just before the outbreak of the pandemic, to 1.9 % at the end of the year and 1.7 % at the end of February 2021. In March, the annual growth rate dropped to –0.2 %, due to the base effect of the temporary surge of lending in March 2020. The use of alternative (cheaper) debt funding channels by large corporations helps explain this deceleration, but it also resulted from developments on the supply and demand side of bank lending. Corporations applied for fewer loans for investment purposes. Equally, banks' credit underwriting policies, even if they weren't tightened per se, had to cope with the considerable deterioration in the financial position of a large number of corporations, especially in the most vulnerable sectors. Yet, state-guaranteed loans for business borrowers were used relatively sparsely. This may indicate that the other support measures (including moratoria) and non-guaranteed bank credit met the liquidity needs of the majority of businesses during the year under review. But the framework remains in place and could provide a fallback solution as other support measures decline or disappear in 2021. In the recovery phase, banks will have to ensure that eligible businesses maintain easy and sufficient access to this alternative source of finance.

Chart 2

Moratoria of mortgage and corporate loans

(number)



Source : NBB.

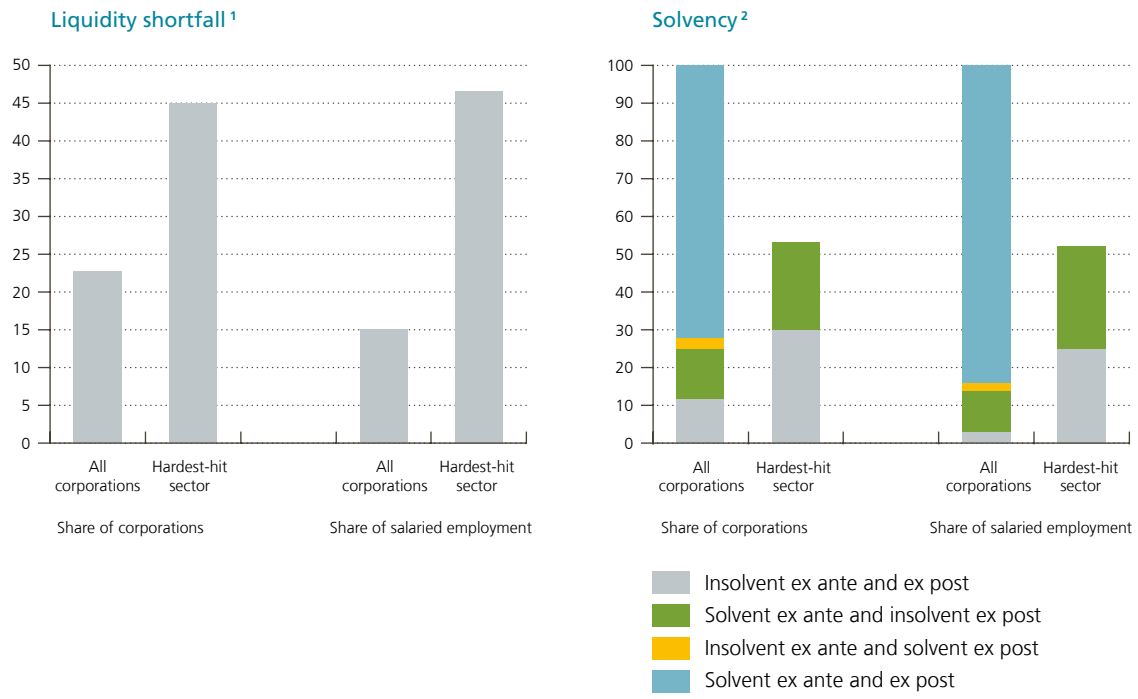
Moratoria were also used extensively by debtors to address the liquidity shock of the crisis once the related bank and insurance sector charters for requesting a temporary payment holiday were finalised and operational. At the end of September, moratoria had been granted to no less than 13 % of business loans and 6 % of mortgage loans (Chart 2). The options to request such a moratorium were subsequently renewed and extended. But the actual use of these moratoria remained much lower, as many borrowers had returned to a better financial position while others had already used up the maximum period of 9 months provided for in the charters. At the end of April 2021, 2.2 % of business loans and 0.4 % of mortgage loans still benefited from a payment holiday agreement. These figures do not take into account the additional restructuring of loan contract terms that banks may have granted to debtors bilaterally as part of so-called forbearance measures, which show a gradual increase in the quarters following the start of the crisis (see below).

The lesser recourse to moratoria and still moderate default rates on household and corporate loans (see below) bear witness to the success of the support measures that were put in place by the fiscal, monetary and prudential authorities. But many of these support measures are temporary and mostly address debtors' liquidity – and not solvency – problems. In this respect, the left-hand panel in Chart 3 shows that no less than one quarter of all non-financial corporations in Belgium still suffered from a liquidity deficit at the end of 2020 as a result of the abrupt and prolonged suspension of operations, particularly affecting the aforementioned vulnerable sectors (with 45 % facing a liquidity deficit in the most impact vulnerable sector). These cash-deprived firms represent 15 % of employment in the Belgian non-financial corporation (NFC) sector. The sanitary and economic crisis has, however, also caused irrecoverable losses of income in the non-financial private sector that were not fully offset by the fiscal income-compensation measures. This is again particularly true for the NFCs in the aforementioned services sectors that were most affected. As shown in the right-hand panel of Chart 3, almost one in two firms in the most vulnerable sector is estimated to have a potential insolvency problem, versus one in three before the pandemic. Looking at the Belgian non-financial corporate sector more broadly, the ratios are somewhat better but still show a sizeable impact of the crisis on the share of NFCs with a (potential) insolvency problem. While around 85 % of NFCs could be judged as solvent before March 2020, this share has declined to less than 75 %, as a large number of previously solvent NFCs have become potentially insolvent. These insolvent firms again account for around 15 % of employment (with a share of more than 50 % if only the most vulnerable sector is considered).

Chart 3

Share of non-financial corporations with a liquidity shortfall or potential solvency problem

(in %)



Source: NBB.

1 NFCs having requested payment deferral (of suppliers, landlords, …) or required additional financial resources to meet payment obligations.

2 Results from a simulation assuming additional debt for NFCs with a liquidity shortfall and defining insolvency as value of debt exceeding value of assets.

The Belgian federal and regional authorities were very quick to recognise the need to supplement liquidity support with a series of measures aimed at reinforcing firms' equity capital. For many of them, the economic recovery combined with their own efforts and tax measures, such as the fiscal reconstruction reserve, will indeed not be sufficient to restore a sound solvency margin in the short term. Therefore, the existing frameworks for public sector participation in firms have been expanded, and new initiatives have been adopted to attract more private and institutional investors to viable businesses. But fiscal policy cannot do all the heavy lifting. Once the economy is out of the danger zone, another risk arises: that of excessive and inefficient support artificially ensuring the survival of unviable businesses. Not only would that entail fiscal costs, it would also be bad for the recovery itself, which will be neither swift nor sustainable if it has to rely on "zombie companies". As the public health situation and economic conditions return to normal thanks to vaccination, that support will therefore need to be more selective, and be gradually but resolutely withdrawn.

The economic recovery would thereby benefit from all other complementary actions that could help to address the legacy of the coronavirus crisis and flatten the forthcoming corporate default curve. The recapitalisation of viable businesses facing temporary solvency problems preserves the economic fabric and speeds up the economic recovery, limiting the eventual total amount of credit losses to be recognised. This recapitalisation can be achieved with injections of new equity, issuance of subordinated debt instruments or financial debt restructuring operations, with creditors playing a key role in the latter. These debt restructuring operations have picked up in Belgium, but appear to remain relatively limited up to now, based on the indirect indicator of the share of bank loans that have benefited from a forbearance agreement (see below). A pro-active use of out-of-court debt restructuring mechanisms by all stakeholders involved could, however, speed up the cleansing process of

the legacy losses and avoid overloading the judicial system with a wave of corporate failures. Previous financial crises have taught us in this respect that a prompt and full recognition of potential credit losses helps cleanse the irrecoverable losses from the system and avoid the subsequent accumulation of non-performing loans in the economy and the financial system, which by then are difficult to resolve without major losses. Financial debt restructuring would also help to keep viable firms afloat, while minimising the negative effects of a large number of bankruptcies in terms of unemployment, or the market value of collateral to be liquidated when a corporation with secured debt fails.

Given the specific characteristics of the coronavirus crisis, this recovery and transition process will not be easy. The distinction between viable and non-viable businesses is not always clear-cut and the crisis has engendered a whole range of changes (online shopping, telework, etc.) that apply not only between sectors but also between firms in the same sector, depending for example on their location or their ability to adapt their business model. Furthermore, it is as yet unclear whether these changes are temporary or more structural. To make sure the economic recovery is sustainable, digital and green transitions will also have to become reality. That will imply additional reallocations of labour and capital, and, possibly, related credit losses. But the Belgian financial sector is well-placed to play a key role in this adjustment process. By assisting in reducing the excessive debt burden in viable firms and phasing out funding of non-viable firms, the sector will help to determine the strength, dynamism and sustainability of the economic recovery.

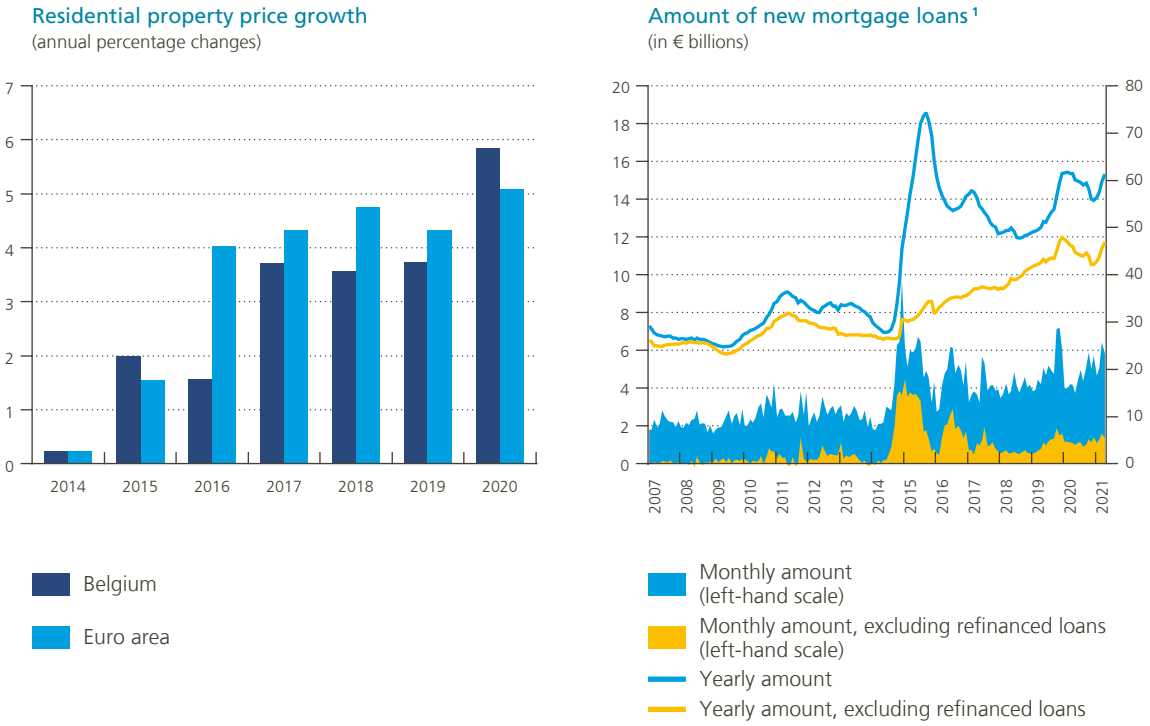
The crisis affected various segments of the Belgian real-estate market differently and some of these changes could become structural as a result of the aforementioned transition processes. In view of the large exposures of Belgian banks and insurance companies, the domestic residential and commercial real-estate markets are also of systemic importance to the stability of the Belgian financial system. The following two sections will review recent developments in these markets, starting with the residential one.

Residential real estate

Despite the coronavirus crisis, the Belgian residential real estate market remained buoyant in 2020. Residential property prices increased by 5.8 % in nominal terms, a growth rate which is higher than in previous years and close to the euro area average (left-hand panel of Chart 4). The higher property prices mainly resulted from robust demand, both from owner-occupiers and investors, combined with a slight decline in the housing supply because of the lockdown measures in the first wave of the pandemic and increased uncertainty about the economic situation. The increase in prices occurred despite the slower rise in household incomes in the current crisis and the end of the mortgage relief scheme in the Flemish Region, two factors that would tend to depress property price growth. As a result, there is an increased overvaluation of the residential property market, i.e. the difference between observed prices and their fundamental value. The Bank's model suggests an average level of overvaluation of 14.1 % in 2020.

Chart 4

Residential property price growth and amount of new mortgage loans



Source: NBB.

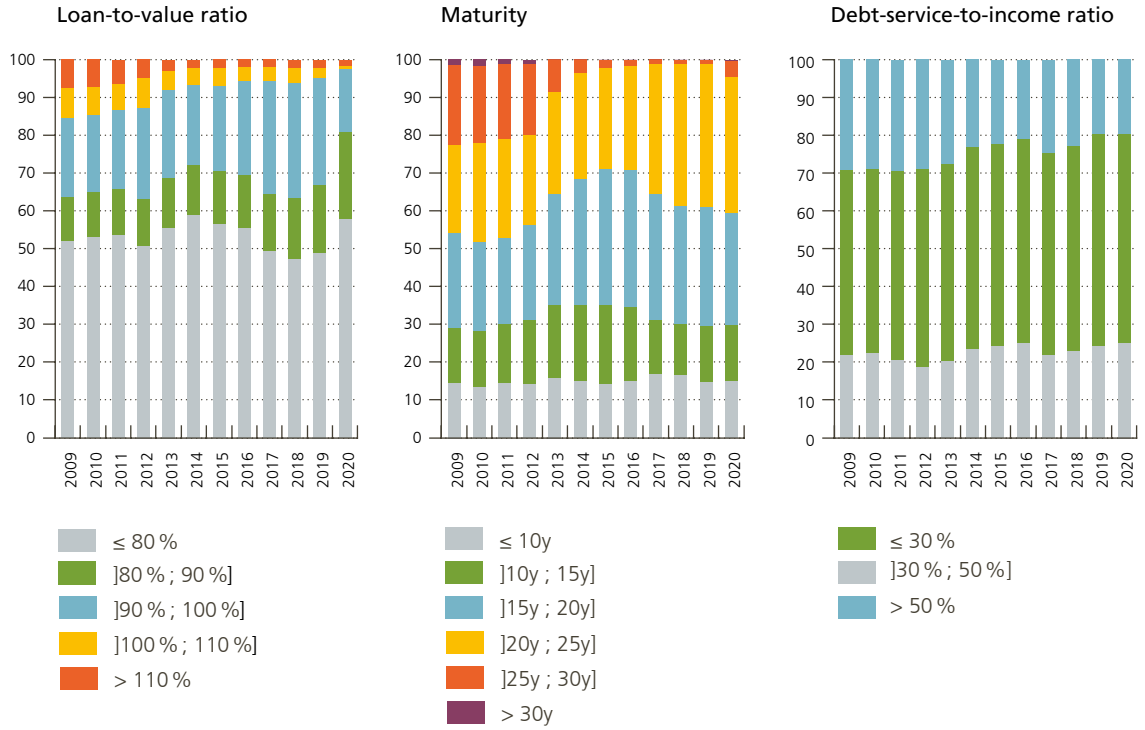
1 Data from the Central Credit Register. Since April 2017, credit providers have to indicate whether or not a newly registered contract is a refinanced loan. The amount of refinanced loans before April 2017 is an estimate based on other data sources.

The activity on the Belgian housing market, both in terms of transactions and new mortgage loans, has nevertheless fallen back in 2020, especially in the first half of the year. This was due to a combination of factors. Firstly, there was the discontinuation of the housing bonus in Flanders which resulted in lower activity during the first months of 2020, after the rush on real estate in the last quarter of 2019. Secondly, the market was impacted by the pandemic, especially in March and April when property viewings and notary appointments were disallowed by the lockdown measures. As soon as these measures were eased, transactions and mortgage lending caught up, giving new momentum to the market in the second half of 2020. The amount of new mortgage loans granted in 2020, as registered in the Central Credit Register, was equal to € 42 billion, excluding refinanced loans (right-hand panel of Chart 4). This is lower than in the exceptional year 2019 (€ 48 billion), when many transactions were recorded in anticipation of the discontinuation of the housing bonus in Flanders. Production in 2020 was nevertheless similar to the amount recorded in 2018 (€ 41 billion), despite the significantly lower activity in the first half of the year.

Chart 5

Developments in credit standards for new mortgage loans[1]

(percentages of total loans granted during a particular vintage)



Source : NBB.

1 Including refinanced loans registered as new contracts. Such refinanced loans can artificially improve the credit standards of new mortgage loans, as a proportion of the loan has already been repaid.

The still high level of new mortgage loans granted in 2020 reflects that, despite the overall challenging and uncertain economic environment, demand for mortgage loans and real estate remained high, on the back of low (and declining) mortgage interest rates. Belgian banks, on their side, have met this demand with sufficient supply of credit, while at the same time having tightened credit standards (Chart 5). After several years of deterioration, the risk profile of new mortgage lending improved markedly in 2020, especially as regards the loan-to-value (LTV) ratio, which is mainly a consequence of the Bank's new macroprudential supervisory expectations for mortgage loans that came into effect in the beginning of 2020 (see the MPR article). The share of new mortgage loans in which households borrowed more than 90 % of the value of the property declined significantly to 19 % in 2020, compared to 37 % in 2018 and 33 % in 2019. Loans have shifted partly towards the]80 % ; 90 %] LTV bucket, of which the share increased to 23 %. Nevertheless, the share of new loans with an LTV of less than 80 % still substantially improved and reached again the level of 2014 (around 58 %), which is the year before credit standards started to deteriorate. Meanwhile, maturities and debt-service-to-income (DSTI) ratios have remained broadly stable compared to 2019. 40 % of new loans granted in 2020 had an initial maturity of more than 20 years, while for 20 % of new loans, households spent more than half of their disposable income on repaying their debt.

The improvement in the risk profile of new mortgage loans has been observed in all sub-segments of the market (first-time buyers, other owner-occupiers and buy-to-let) (see MPR). While the total amounts borrowed by each of these segments have been lower in 2020 than in the record year 2019, there has not been a shift in their relative share of new production. Loans for buy-to-let purposes, for example, amounted to around 11.6 % of

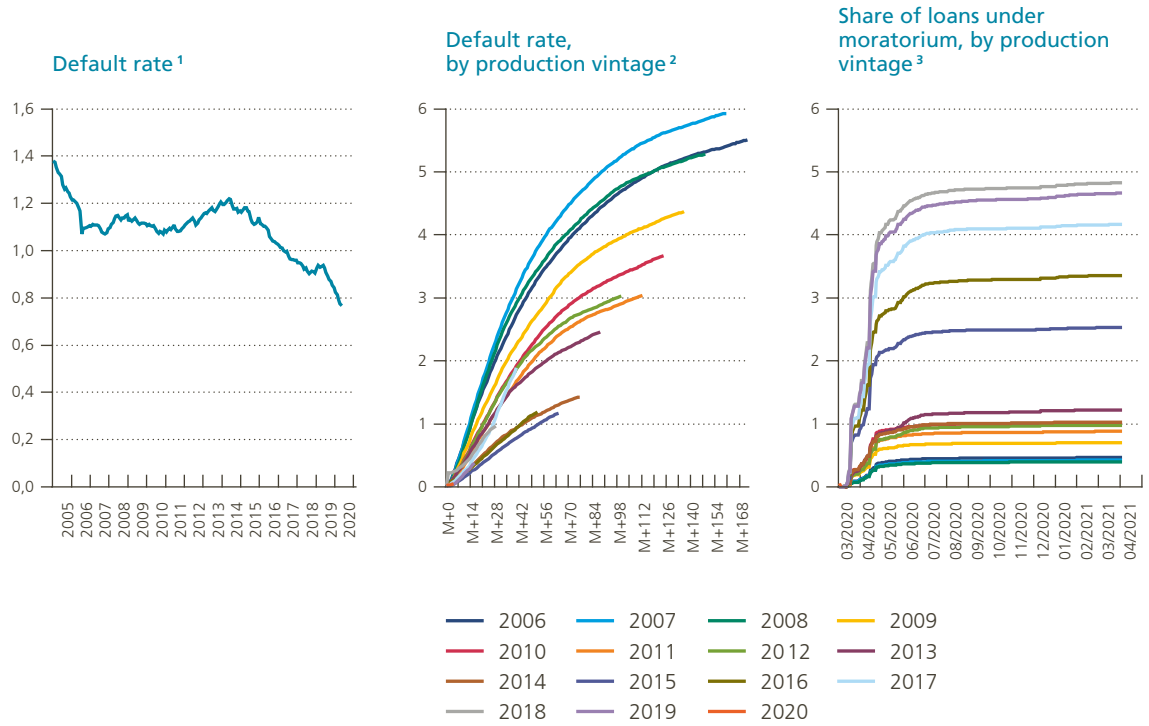
new mortgages in 2020, which is a little higher than last year (10.1 %) but close to the level of the years before (around 12 %). The share of young borrowers (i.e. younger than 35 years) has also remained close to the levels observed in previous years (35 % compared to 36 % in 2019). As young people typically have fewer own funds at their disposal than older borrowers, the macroprudential expectations were set up with more flexibility and a less strict LTV threshold for first-time buyers than for the other sub-segments such as buy-to-let, which is considered to be a riskier segment of the market.

The application of more prudent credit standards will eventually lead to a gradual reduction of the "pockets of risk" in the mortgage portfolios of Belgian financial institutions. These pockets of risk consist of loans where households combine several high-risk features in their mortgages such as high LTV with high DSTI ratios and low liquid assets for example. At the end of 2020, 20 % of banks' outstanding mortgage loans had originally been granted with a combination of an LTV of more than 90 % and a DSTI higher than 30 %. In addition, over half of these loans also had an initial maturity of more than 20 years. While the vast majority of Belgian outstanding mortgage debt is held by the Belgian banking sector, another – increasing – part of the mortgage debt can be found on the balance sheets of Belgian insurers. At the end of 2020, banks' outstanding mortgage loans amounted to € 233 billion (which is 21 % of their total assets), and insurers held € 19 billion of mortgages (or 6 % of their total assets).

Chart 6

Mortgage loans with payment defaults and share of loans under moratorium

(in %)



Source: NBB.

1 The number of mortgage loans with payment defaults as recorded in the Central Credit Register, expressed as a percentage of the total number of outstanding loans.

2 Production vintages group together loans granted during the same year. The curves show, for each vintage, the number of defaulted loans as a percentage of total original loans after a certain number of months since the loans were granted. Possible regularisations (cures) of loans are not taken into account.

3 Production vintages group together loans granted during the same year. The curves show, for each vintage, the number of loans which benefit or have benefited from a moratorium as a percentage of total original loans cumulatively for each month after the first moratoria were granted in March 2020.

Despite the presence of pockets of risk in the stock of mortgage loans, the Bank has not yet observed any marked materialisation of risks on the Belgian residential real estate market since the onset of the coronavirus crisis. On the contrary, the default rate of Belgian mortgage loans, which was historically already very low, further declined in 2020 from 0.9 % to 0.8 %, based on the number of defaulted loans registered in the Central Credit Register (left-hand panel of Chart 6).

However, this development is largely explained by the measures taken to support households' income and temporarily ease their debt service burden. Many households that suffered from income loss during the crisis have requested a moratorium for their mortgage debt repayments (see before). While this measure was introduced to avoid defaults resulting from temporary liquidity issues, some borrowers might face more structural problems which are masked for the moment but might surface after the support measures have expired. So far, however, the mortgage default rate has continued to decrease in the first 4 months of 2021 (to below 0.8 %), even though the majority of outstanding moratoria had expired by the end of April 2021. On the one hand, this is because it takes some time for defaults to materialise and be registered in the Central Credit Register. On the other hand, banks have also been offering forbearance and debt restructuring solutions to (solvent) borrowers (see also section 2), for whom an extension of the EBA-compliant moratorium was no longer possible because its duration would then surpass the maximum of 9 months specified in the EBA guidelines on legislative and non-legislative moratoria[1].

As a result of the weakening of mortgage credit standards between 2015 and 2018, new mortgage loans granted in those years were already showing a higher default risk than vintages with better credit standards. Before 2015, credit quality had improved almost every year, as shown by the default rates per vintage of production (middle panel of Chart 6). This trend has reversed since 2015. It is not a coincidence that this came at the same time as credit standards started to deteriorate again. For example, of the mortgage loans granted in 2015, 0.45 % had already defaulted after two years, but this was the case for an increasing share of the loans granted in 2016, 2017 and 2018 : 0.55 %, 0.81 % and 0.87 % respectively. The loans from these recent vintage years with deteriorating credit standards also had a higher recourse to the moratorium. Of the loans originally granted in 2015, 2016, 2017, 2018, a respective (and ascending) share of 2.5 %, 3.4 %, 4.2 %, and 4.8 % benefited or had benefited from a moratorium by March 2021 (right-hand panel of Chart 6).

Although there are as yet no signs, it cannot be ruled out that the risks related to household indebtedness and the pockets of risk in the outstanding Belgian mortgage stock will materialise in the future (either in the form of higher defaults or as adjustments to consumption). This will especially be the case when the long-term consequences of the crisis become visible with, for example, a rise in the unemployment rate. At that moment, the Bank can decide to release the specific macroprudential capital buffer for the residential real estate market, in order to give additional room to the banks to absorb credit losses, provide solutions to borrowers in distress and continue to grant mortgage loans (see also MPR).

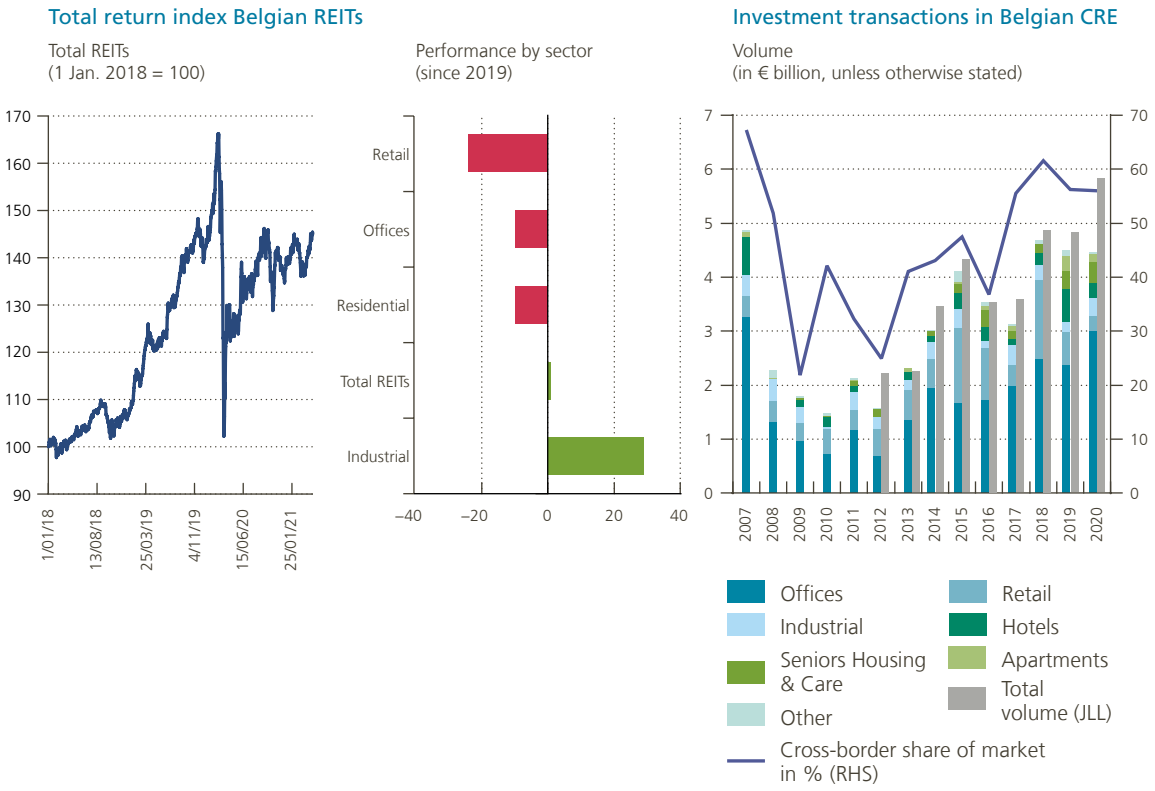
Commercial real estate

Commercial real estate (CRE) was not immune to the consequences of the pandemic, even if its impact had not yet manifested itself in all parts of the market in 2020. The mandatory closure of non-essential retail shops, hotels, restaurants and cafés created significant liquidity pressure on commercial property tenants. The prospect of rent arrears and loss of rental income for property owners put pressure on the valuation of commercial property, which was immediately reflected in the prices of listed real estate. The sharp decline in stock market returns of Belgian Real Estate Investment Trusts (REITs) in March 2020 suggested that markets were anticipating a significant downward price correction for commercial real estate, and this expectation was only partially adjusted during the rest of the year (Chart 7). However, the REIT indices also point to very different price expectations according to market sector, with strong declines in implied market valuations for offices and, especially, retail properties, but further price rises in the logistics sector.

1 EBA\GL\2020\02, amended by EBA\GL\2020\08 and EBA\GL\2020\15

Chart 7

REIT equity prices and investment transactions in the Belgian CRE market



Sources: JLL, RCA, Refinitiv and NBB calculations.

The different sectors of the CRE market were unevenly affected by the pandemic. The social distancing measures accelerated structural trends such as working from home and online sales, and it is generally believed that there will not be a full return to the pre-crisis ways of working, shopping and consuming in the post-corona era. The uncertainty about the future needs for space of occupiers of offices and physical stores therefore weighs on the office and retail market sectors. This is reinforced by fears of declining demand for real estate when the protection of government support measures expires and the impact of the economic crisis fully materialises. As demand for CRE space is strongly intertwined with economic activity, the logistics sector would not be completely immune to such downward cyclical developments either. However, in 2020, this sector was clearly positively impacted as a result of the boost in e-commerce, the additional demand for storage space from the food and pharma sectors, and the fundamental rethinking and adaptation of supply chains as a result of disruptions in global supply channels. In addition to the consequences of the sanitary crisis, the uncertainty surrounding Brexit prompted British companies to also build up precautionary stocks on the European mainland.

Growing uncertainties on the commercial real estate market in general do not seem to have led to a decline on the investment market. In 2020, the volume of investment transactions in Belgian CRE equalled that of the previous year and was therefore above the 5-year average according to Real Capital Analytics (RCA) figures. Private real estate broker data even point to an absolute record of almost € 6 billion in transactions last year. A large part of that investment volume was, however, related to one single transaction in the Belgian office market: the sale of the Brussels-based Finance Tower for € 1.2 billion to South Korean investors in January 2020. Partly due to this exceptional deal – the largest single property deal ever on the Belgian CRE market – foreign

investors continued to dominate the market with a share of almost 60 %, and investments in offices reached their highest level since 2007. Alternative CRE sectors like healthcare and residential properties are considered to offer income stability even during cyclical downturns and therefore continued to attract growing interest from investors.

2. Banking sector

While the Belgian banking sector is confronted with additional challenges due to the impact of the coronavirus crisis, the sector has been able, so far, to support the economy and the private sector on the back of robust capital and liquidity buffers, helped by the various prudential, monetary policy and other support measures (fiscal or otherwise). In 2020, Belgian banks continued to grant credit (with or without a state guarantee) and provided moratoria on loan repayments to borrowers with liquidity problems. In addition, the sector has remained profitable, even though banks already started to prepare for the expected asset quality deterioration by booking provisions for future credit losses and granting forbearance solutions to borrowers in distress. So far, actual defaults have remained limited, but they are expected to increase in the future when the support measures end and the long-term impact of the crisis becomes visible. At that moment, banks will need to continue their crucial role in the economy by helping the private sector weather the crisis, for example with additional credit, timely loss recognition and proactive action to avoid unnecessary defaults. Because of the implications of the current crisis, combined with some other (structural) risks and challenges that were already present before, such as the pressure on net interest margins and the rapid digitalisation of the financial sector, banks' profitability, capital positions and business models are expected to remain under pressure in the short and medium term.

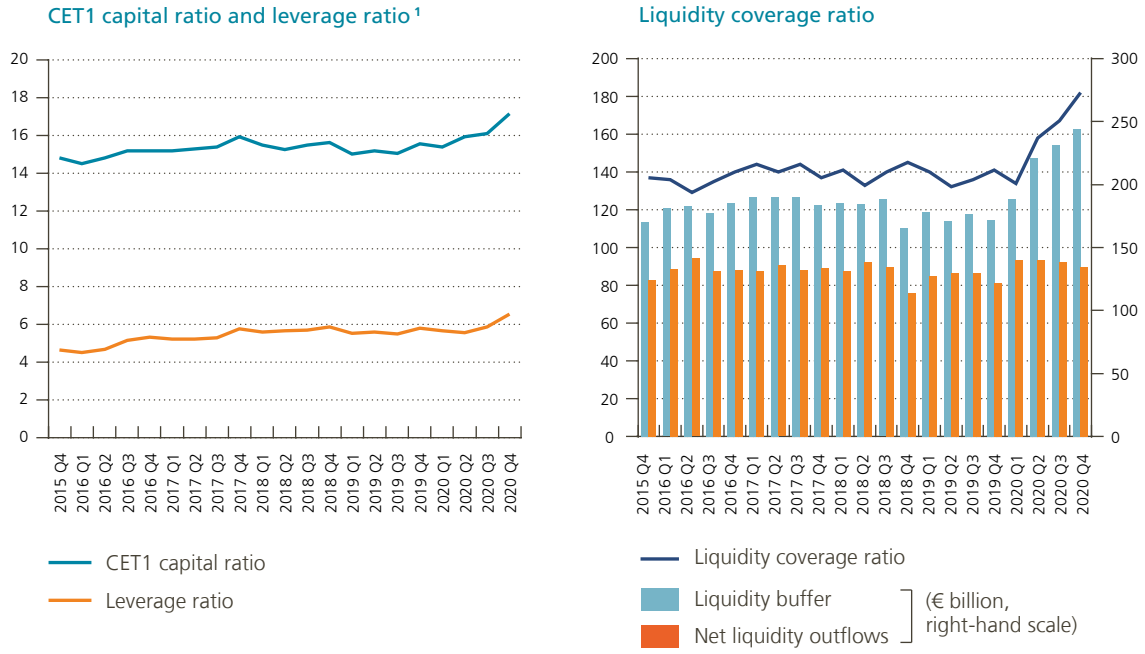
Solvency and liquidity

After the global financial crisis of 2008-2009, the Belgian banking sector increased its resilience to negative economic shocks by building up higher capital and liquidity buffers and restructuring its business models. On the one hand, this resulted from the fact that regulators and supervisors tightened minimum capital and liquidity requirements (both regarding the quantity and quality of those buffers) and added macroprudential buffers to the regulatory toolkit (such as the countercyclical capital buffer). On the other hand, the sector itself has undertaken a broad restructuring of its business models in which non-core activities were scaled down and banks refocused on their key function as financial intermediaries in the Belgian economy (Chart B2 in Annex), which also led to a decline in risk-weighted assets. Moreover, profitability has been rapidly restored to levels above the euro area average (Chart B11 in Annex), which further supported the build-up of capital. Before the outbreak of the coronavirus crisis, the Belgian banking sector was in robust shape, with an average CET1 capital ratio of 15.6 % at the end of 2019, well above the regulatory minimum of 11 % on average, and a liquidity coverage ratio (LCR) of 141 %, also well above the minimum requirement of 100 % (Chart 8).

Chart 8

Capital and liquidity buffers of Belgian banks

(consolidated end-of-period data, in % unless otherwise stated)



Source: NBB.

1 Using the fully phased-in definitions of Common Equity Tier 1 and Tier 1 capital.

These buffers have further increased since the onset of the current crisis – a crisis which, unlike the global financial crisis, did not originate in the financial sector but may have important repercussions for it. Both micro- and macroprudential supervisors have taken measures to strengthen banks' resilience and help them continue their key function as credit provider to the real economy even when facing losses, with the aim of reducing procyclicality. These measures included temporarily allowing banks to operate below certain requirements, releasing some macroprudential capital buffers, and restrictions on dividend distribution (see the MPR article for more details). As a result, total CET1 capital in the Belgian banking sector increased to € 67 billion in 2020, which brought the average CET1 ratio to an all-time high of 17.1 % by year-end 2020 (left-hand panel of Chart 8 and Table B7 in Annex). Meanwhile, the leverage ratio, which is not dependent on risk weights, has increased to 6.5 %.

On top of these prudential measures, monetary policy has contributed to supporting bank lending to the real economy at favourable conditions. The ECB extended and eased its TLTRO III programme so that banks were able to borrow more and at a lower interest rate. Belgian banks' wide uptake of this funding, along with the increase in deposits, which resulted from the crisis-related precautionary saving and decline in spending opportunities for the private sector, has led to a considerable increase in banks' available funding and liquidity (Chart B6 and Table B8 in Annex). As a result, the sector's balance sheet expanded to € 1 132 billion (+ 8 %). The LCR ratio – which fluctuated around 140 % in the past – increased to 182 % at the end of 2020 (i.e. the highest level since its implementation) on the back of a significant rise in the liquidity buffer (right-hand panel of Chart 8). Liquid assets increased mainly because of higher cash balances, and despite a higher asset encumbrance ratio (of 17 % up from 12 % end 2019), since the additional collateral that had to be provided to obtain funding under the TLTRO programme consisted mainly of (securitised) loans and to a lesser extent of government bonds (Table B9 in Annex). The availability of sufficient liquidity is also shown by the low loan-to-deposit ratio of 89 %. The

ratio declined from 96 % at the end of 2019 (Table B8 in Annex), reflecting the considerable increase in deposits and the stabilising of stock of loans in 2020.

Backed by this robust solvency and liquidity position, the Belgian banking sector has been able to support the economy during uncertain conditions in 2020, by providing payment moratoria as well as new credit (with or without a state guarantee) to the private sector, so that the crisis was not amplified by a credit crunch (see section 1). In the recovery phase, when the measures end, banks will need to continue their crucial role by granting additional credit, timely loss recognition and proactive action to address asset quality deterioration by offering extensions of payment holidays or debt restructuring to viable borrowers. With its ample capital and liquidity buffers, the Belgian banking sector should be able to fulfil this task without jeopardising financial stability.

Asset quality

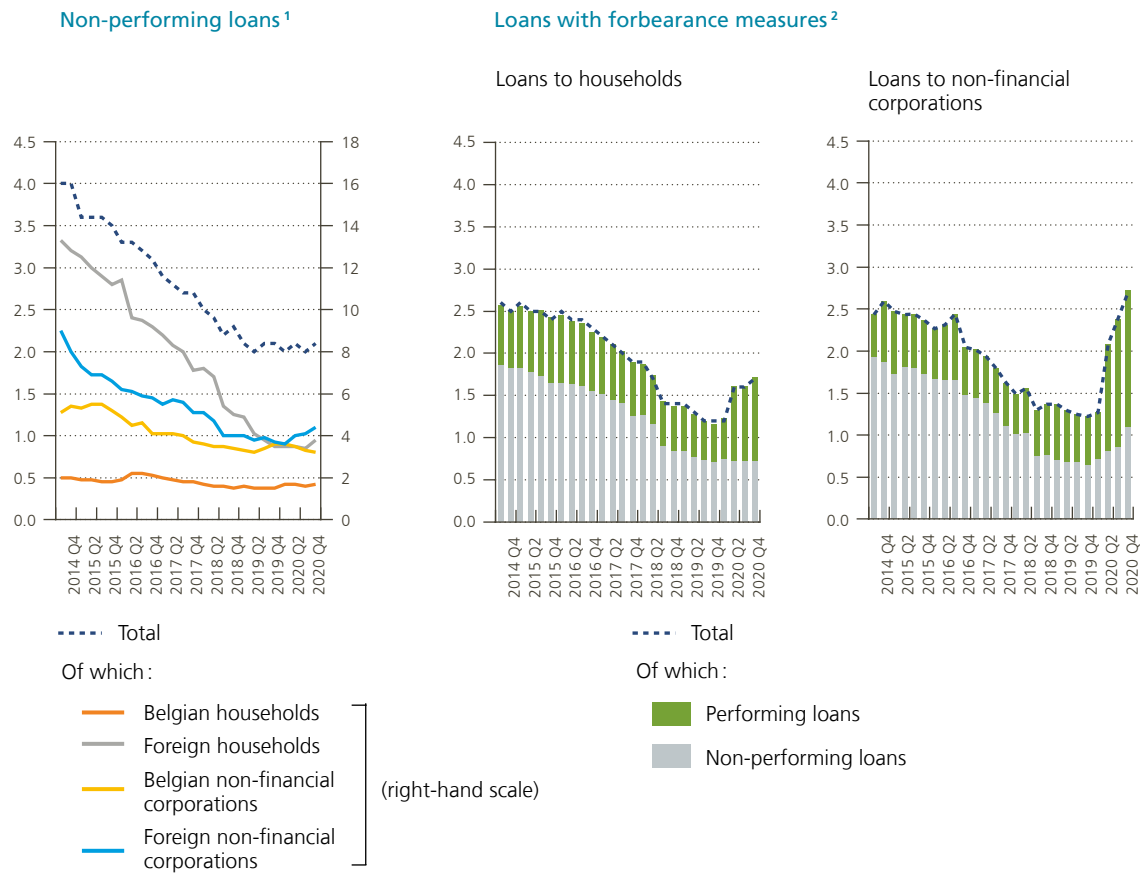
The various support measures for the private sector (such as income support and moratoria on loan repayment and bankruptcies) have indirectly shielded banks from major credit losses – and effects on their capital position – so far. The ratio of non-performing loans (NPLs) in the Belgian banking sector has remained stable and low at around 2.1 % in 2020 (left-hand panel of Chart 9). However, developments differed as regards household and corporate loans. While non-performing loans to households (€ 6.7 billion or 2.0 % of total household loans) have not yet increased throughout the year, NPLs of non-financial corporations have already started to rise (to € 10.1 billion or 4.0 % of total corporate loans, up from € 9.3 billion or 3.6 % at the end of 2019). Part of this increase related to loans for which payments were more than 90 days past due, but the largest share was due to loans that were classified as "unlikely to pay".

As mentioned before (see section 1), the current crisis has an important but uneven impact on the private sector. Companies and employees in sectors hardest hit by the lockdown measures or for which structural changes are to be expected (e.g. related to the acceleration in e-commerce or teleworking) have a higher risk of defaulting on their loans. Likewise, the increase in corporate NPL ratios in 2020 was mainly observed in specific sectors such as the hospitality sector, where the NPL ratio has risen from 5.9 % to 7.6 % (Chart B15 in Annex). Belgian banks' exposures to the most vulnerable sectors are, however, relatively limited overall (Table B4 in Annex). In particular, outstanding loans to the hospitality and the entertainment sector amounted to € 6.2 billion in December 2020, within a total corporate portfolio of € 250 billion. On the other hand, the banking sector has significant (and increasing) exposure to both residential and commercial real estate markets (Table B5 in Annex), which are also either impacted or expected to be impacted by the current crisis (see section 1) if, for example, the unemployment rate starts to rise.

Chart 9

Non-performing loans and loans with forbearance measures

(consolidated end-of-period data, in % of total loans)



Source : NBB.

1 Non-performing loans are loans that may not be repaid due to their borrower getting into financial trouble, or that are already in arrears.

2 Loans with forbearance measures are loans for which banks have made concessions (modifications of the contract or debt refinancing) to debtors facing or about to face financial difficulties in meeting their commitments [1].

NPL ratios are expected to materially increase when the current support measures are discontinued, and the long-term consequences of the crisis become visible. Signs of deteriorating asset quality have already appeared in 2020. The share of loans with forbearance measures (i.e. loans which are subject to credit-specific restructuring measures such as a payment holiday or extension of maturity other than the general moratorium [1]) has increased from 1.2 % to 1.7 % for household loans and from 1.2 % to 2.7 % for loans to non-financial corporations (middle and right-hand panel of Chart 9). This increase mainly related to performing loans, which indicates that banks are also proactively offering such solutions to borrowers in order to minimise losses and avoid unnecessary defaults. They will need to continue to do so going forward in order to support their borrowers and the economy in general, while using their available buffers (forbearance solutions often lead to higher provisions or costs for banks).

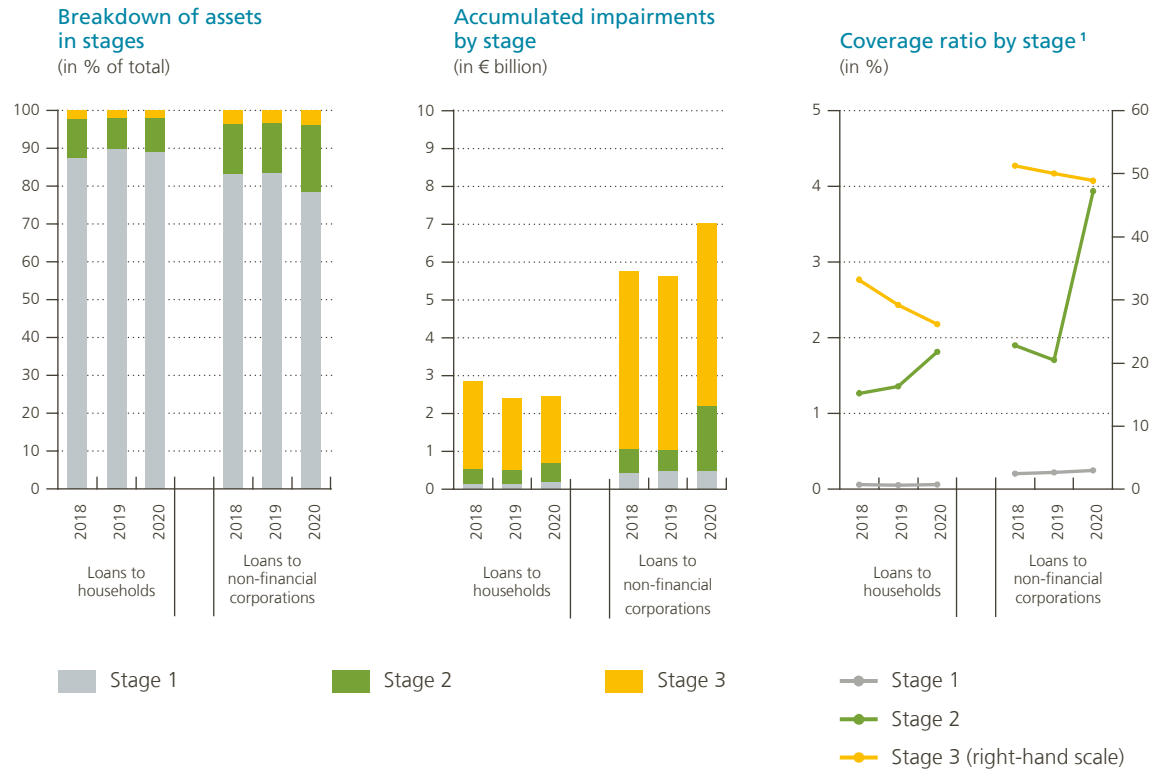
1 Loans subject to a general payment moratorium are – in accordance with the EBA Guidelines on legislative and non-legislative loan repayment moratoria (EBA\GL\2020\02, amended by EBA\GL\2020\08 and EBA\GL\2020\15) – not automatically classified as loans with forbearance measures.

Furthermore, Belgian banks have started to reclassify part of their outstanding loans in higher impairment stages and book larger provisions accordingly. Since the implementation of the IFRS 9 accounting standard in 2018, banks have to classify their loans into three credit risk stages and calculate provisions based on expected credit losses (ECLs) for each stage with a forward-looking approach. When a loan's credit risk has not changed since origination, it is booked in stage 1 and provisions have to reflect ECLs for the next year. If credit risk has increased significantly, the loan moves to stage 2 and provisions have to match ECLs over the whole lifetime of the loan. If credit risk has increased to the point where the loan is considered credit-impaired, the loan is classified in stage 3 and lifetime ECLs have to be recognised. In line with NPL developments so far, banks have not (yet) shifted many loans to stage 3 since the end of 2019, but they have moved some of their loans from stage 1 to stage 2, reflecting the increase in these loans' credit risk as a result of the coronavirus crisis. Developments differed again as regards household and corporate loans. While the share of corporate loans in stage 2 rose from 13.0 % to 17.7 %, there was only a limited increase from 8.2 % to 8.8 % for loans to households (left-hand panel of Chart 10).

Chart 10

Breakdown by IFRS 9 impairment stage of loans to households and non-financial corporations, their accumulated impairments and their coverage ratio

(consolidated end-of-period data)



Source: NBB.

1 Ratio of accumulated impairments in stage 1, 2, 3 to total loans in, respectively, stage 1, 2, 3.

The shift of loans from stage 1 to 2 resulted in higher overall bank provisions as the provisions of these loans needed to reflect lifetime instead of 1-year ECLs from then on. Moreover, the proportional coverage of stage 2 loans (or in other words, the ratio between accumulated stage 2 provisions and total stage 2 loans) has also increased, from 1.4 % to 1.8 % for household loans, and from 1.7 % to 3.9 % for corporate loans (right-hand panel of Chart 10). This increase reflects the inclusion of the crisis in banks' forecasts. This is either

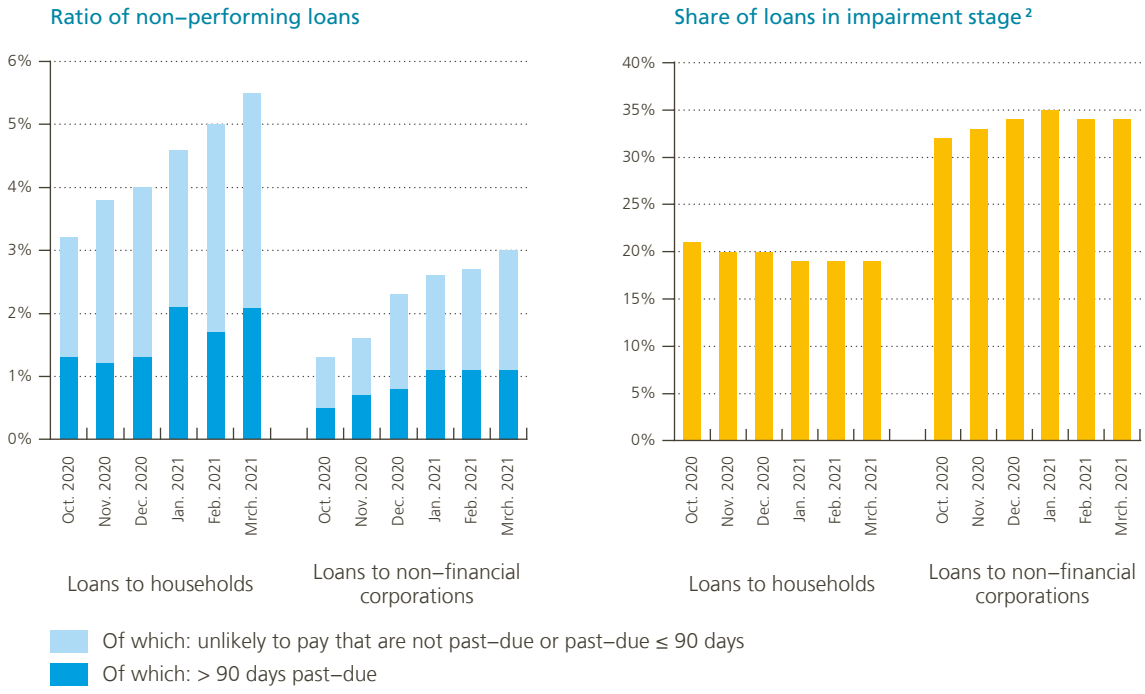
through the impact on (the inputs to) their ECL models or through management overlays when banks assume that certain specificities or potential consequences of the crisis are not adequately – or in due time – captured by the mechanical calculations. As a result of both stage 2 reclassifications and higher stage 2 coverage ratios, total provisions set aside by Belgian banks for future loan losses have risen, especially in the corporate portfolio. By the end of 2020, € 7.0 billion of provisions had been accumulated for corporate loans (€ 1.4 billion higher than at end 2019) and € 2.5 billion for household loans (€ 0.1 billion higher) (middle panel of Chart 10).

At individual bank level, heterogeneous practices have been observed since the onset of the pandemic as regards the reclassification of loans between impairment stages, the increase in coverage or provisions and the application of forbearance measures. These differences can relate to the macroeconomic scenarios used to model the crisis' impact, the timeliness of identifying changes in credit risk, risk profiles of lending portfolios and diverging use of qualitative indicators to determine IFRS 9 staging. While banks have been allowed flexibility and pragmatism in the application of the prudential framework in the context of the crisis in order to reduce procyclicality – for example, no automatic classification of general moratoria into default, forborne, or IFRS 9 status – supervisors and regulators have been stressing the need for adequate identification, assessment, classification and measurement of credit risk. To this end, banks are for example expected to distinguish between borrowers with temporary liquidity issues and those with more structural problems. A key lesson from previous financial crises, including the one of 2008-2009, is the key role of a timely and early full recognition of irrecoverable losses in the crisis. The faster the legacy losses arising from a crisis are dealt with, the more dynamic and sustainable the subsequent economic recovery will be.

Chart 11

Asset quality of loans which benefit or have benefited from a moratorium

(consolidated data, in %)



Source: NBB.

In this context, even when macro-economic risks have been mitigated following the interventions of governments and central banks, a thorough assessment of credit risk for borrowers subject to support measures is crucial in order to avoid cliff effects when these measures end. Since October 2020, a large share of the moratoria on loan repayments have started to expire and have not been extended (see section 1). By March 2021, more than 94 % of both household and corporate loans which benefit or have benefited from a moratorium – both in Belgium and in Belgian bank's foreign home markets – were still classified as performing, indicating that the vast majority of borrowers returned to normal repayments. However, the NPL ratio of these exposures has been increasing, from 3.2 % in October 2020 to 5.4 % in March 2021 for household loans and from 1.3 % to 3.0 % for corporate loans, initially mainly as a result of more loans being classified as "unlikely to pay" but more recently also due to a rise in loans that are more than 90 days past-due (left-hand panel of Chart 11).

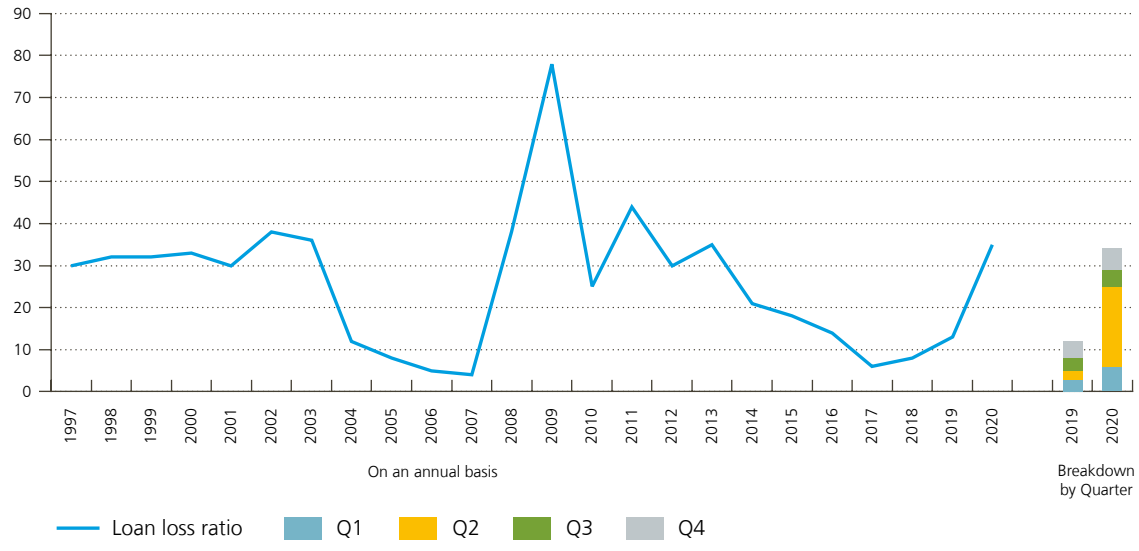
Moreover, although there is no automatic staging for loans under general moratoria, a high share of these loans is classified in stage 2, indicating that their credit risk has significantly increased since loan origination. Around 20 % of household loans and 35 % of corporate loans which benefit or have benefited from a moratorium is categorised as stage 2 (right-hand panel of Chart 11) compared to 8.8 % and 17.7 %, respectively, for the total stock of household and corporate loans. Additional NPLs and provisions might therefore still be in the pipeline for these exposures. Equally, the new extension to the moratorium for corporate loans in February 2021, which is no longer EBA-compliant as it surpasses the maximum period of 9 months specified in the EBA-guidelines on legislative and non-legislative moratoria[1], might lead to higher provisions and stage shifts since the flexibility set out in these guidelines is no longer applicable.

1 EBA\GL\2020\02, amended by EBA\GL\2020\08 and EBA\GL\2020\15.

Chart 12

Loan loss ratio[1]

(consolidated data, in basis points)



Sources: NBB, ECB.

1 The loan loss ratio is the net flow of new impairments for credit losses, expressed as a percentage of the total stock of loans (one basis point is one-hundredth of one per cent). Between 2006 and 2018, the figures relate to the IAS 39 category "Loans and Receivables". From 2018 onwards, the figures relate to the IFRS 9 category "Financial assets at amortised cost".

The additional provisions recorded for expected credit losses in the context of the current crisis have been lower so far than the peak levels seen during the global financial crisis in 2009. Then, the net flow of new impairments, expressed as a percentage of the total stock of loans (i.e. the "loan loss ratio"), amounted to 78 basis points (Chart 12). In 2020, the ratio stood at 35 basis points, which is nevertheless almost 3 times the 2019 figure (13 basis points). The bulk of these new provisions was recorded in the second quarter of 2020. However, economic uncertainty is still significant and future adjustments to provisions – both upward and downward – are still possible, especially given the heterogeneous provisioning practices that were observed among banks so far.

Profitability

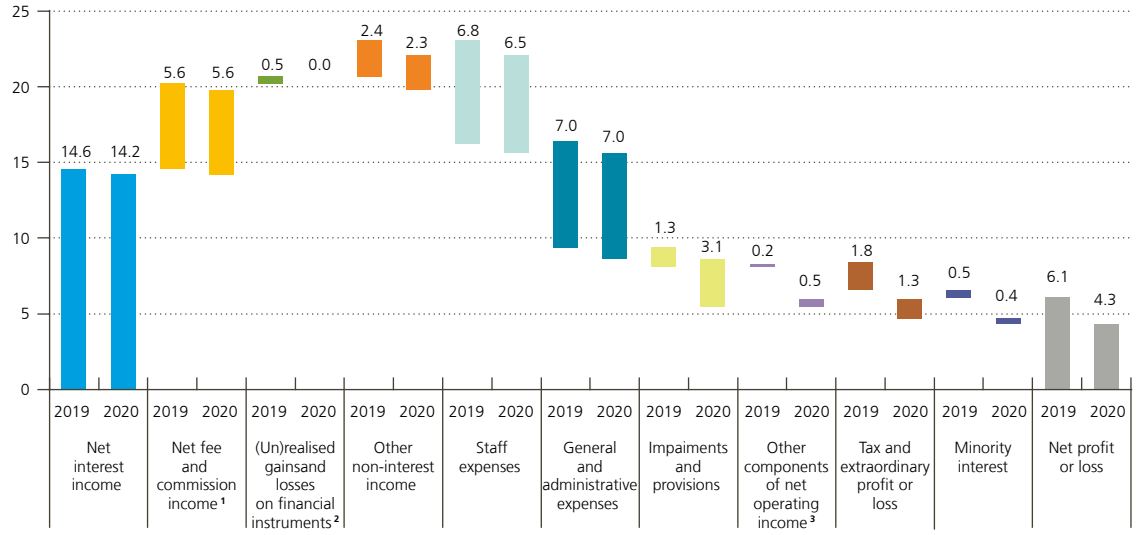
Despite the significant economic impact of the crisis and the additional provisions booked in order to prepare for the expected increase in loan defaults, the Belgian banking sector remained profitable in 2020. The sector recorded a bottom-line profit of € 4.3 billion, which is 30 % below the net result in 2019 (€ 6.1 billion). With this result, an average return on equity of 5.9 % was achieved, compared to 8.7 % in 2019. Return on assets stood at 0.38 % (0.59 % in 2019). As in previous years, these indicators of profitability were higher than the euro area averages, which equalled 2.6 % for return on equity and 0.17 % for return on assets based on latest available figures for the first 9 months of 2020 (Chart B11 in Annex).

The new impairments and provisions recorded in the income statement have clearly weighed on Belgian banks' profitability in 2020. In total, they amounted to € 3.1 billion, which is significantly higher than in 2019 (€ 1.3 billion) and the years before. The other components determining banks' bottom-line profit in 2020 have remained more stable (Chart 13 and Table B10 in Annex). However, pre-impairment gross operating result

Chart 13

Main components of the income statement in 2020 versus 2019

(consolidated data, in € billion)



Source : NBB.

1 Including commissions paid to bank agents.

2 This item includes the net realised gains or losses on financial assets and liabilities not measured at fair value through profit or loss, the net gains or losses on financial assets and liabilities held for trading and designated at fair value through profit or loss, and the net gains or losses from hedge accounting.

3 Other components of net operating income comprise the share in profit or loss of associates and joint ventures accounted for using the equity method, and the profit or loss from non-current assets, disposal groups classified as held for sale not qualifying as discontinued operations, and the negative goodwill recognised immediately in profit or loss.

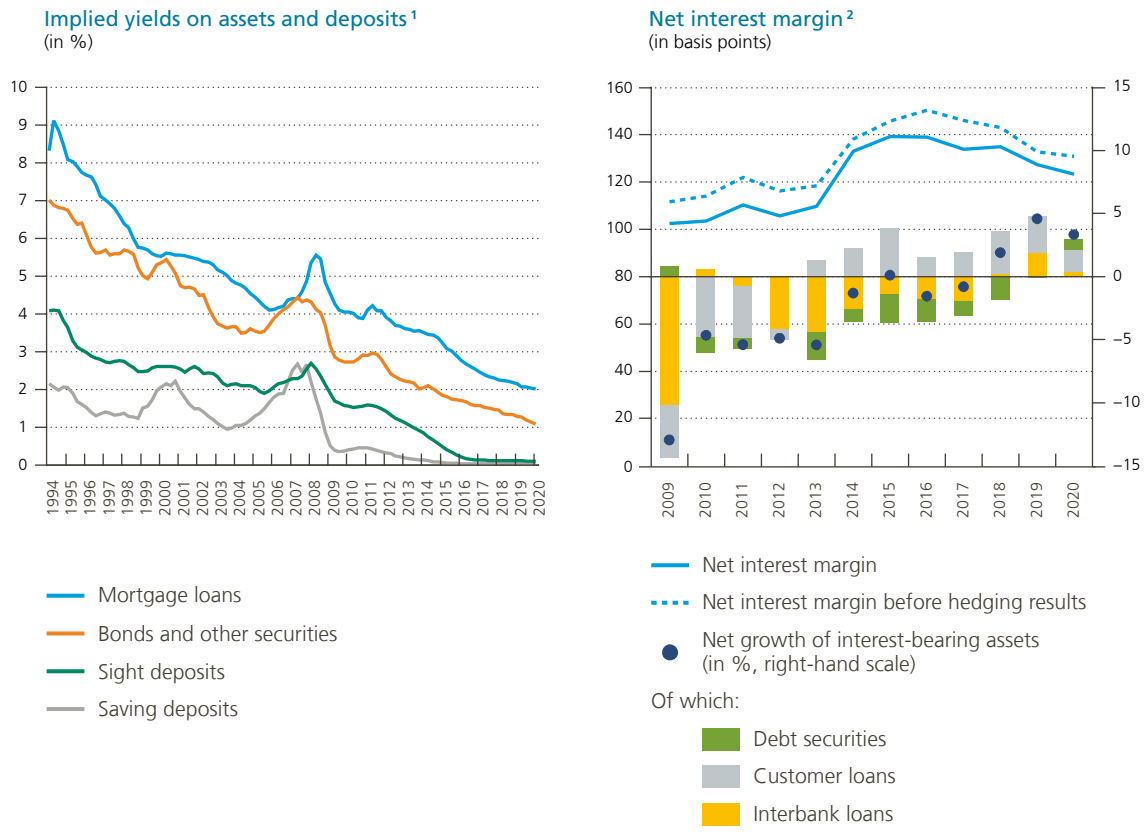
(€ 8.6 billion) was slightly below last year's figure (€ 9.4 billion). This is explained by lower net interest income (–€ 0.4 billion) as well as lower gains on financial instruments related to developments in financial markets, especially in the first quarter of 2020 (–€ 0.6 billion). These declines were compensated to a certain extent by a reduction in staff expenses (–€ 0.3 billion).

Profitability is expected to remain under pressure in the short and medium term, because of the implications of the coronavirus crisis but also because of some other (sometimes structural) risks and challenges that were already present before, such as the pressure on net interest margins. In the context of the persistent low interest-rate environment and the accommodative monetary policy stance of the ECB – which became even more accommodative since the onset of the crisis in order to stabilise financial markets and ensure generally flexible financing conditions for the real economy – Belgian banks' net interest margins (NIM) have narrowed over the past years and this development continued in 2020 (right-hand panel of Chart 14). This is because their interest-bearing assets, which mainly consist of loans and bonds, are increasingly invested (or reinvested) at lower and even negative rates, while their funding costs are bottoming out because, for example, of the legal minimum rate on regulated saving deposits (left-hand panel of Chart 14).

Chart 14

Implied yields on assets and deposits and net interest margin

(non-consolidated data, in %)



Source: NBB.

1 Implied yields are calculated as the ratios between the 12-month cumulative flows of interest actually received and paid, and the average volume of corresponding assets or liabilities in the same period.

2 The net interest margin is defined as the spread between the average interest rate earned on interest-bearing assets and the average interest rate paid on interest-bearing liabilities.

Over the past few years, Belgian banks have managed to compensate the decline in NIM with an increase in loan volumes, which has led to fierce competition in some markets (right-hand panel of Chart 14). However, they were less able to do so in 2020 as the strong lending growth of the first quarter faded over the rest of the year, due in part to lower corporate credit demand for investment purposes in the current context of economic uncertainty, which is expected to last for a while (see section 1). The decline in net interest income in 2020 to € 14.2 billion (–3 %) indicates that the low interest-rate environment has indeed started to eat into banks' revenues despite the fact that – unlike in previous years – transactions with the central bank have supported net interest income. On the one hand, cash balances deposited at the central bank have become less costly since the end of 2019 due to the introduction of the two-tier system for remunerating excess reserve holdings[1]. On the other hand, the further decline of the – already negative – interest rate on central bank funding under the TLTRO III programme and the significant uptake of such funding by Belgian banks in 2020 has resulted in quite a large positive contribution to banks' net interest income (Chart B12 in Annex).

With net interest income as their main income source (accounting for almost two thirds of total operating income), the low interest-rate environment is one of the major challenges for the Belgian banking sector in the coming years. Banks are searching for ways to counterbalance the pressure. For example, by charging higher costs for payment services on current account deposits or by trying to pass on the low and negative interest rates from their asset side to their liability side. For the purpose of the latter, some banks have been converting regulated saving deposits into unregulated saving deposits (which are not bound by the legal floor) and have started to apply negative interest rates on large – mainly corporate – deposits. However, the overall impact of these initiatives on net interest income has remained very modest so far (Chart B12 in Annex). Belgian banks have in recent years also tried to diversify their income sources, for example by directing more commercial efforts to developing their asset management activities with the aim of increasing fee and commission (F&C) income. While total assets under management of the Belgian banking sector have been growing year after year (including in 2020 despite the financial market turmoil) to an amount of € 621 billion in December 2020 (Chart B13 in Annex), total F&C income from asset-management-related and other activities remained quite stable in the last years at around € 5.6 billion or 25 % of total operating income.

Traditionally, the Belgian banking sector has a relatively heavy cost structure, with cost-to-income ratios hovering around 60 % (61 % in 2020) (Chart B11 in Annex). Therefore, with a view to alleviating profitability pressures, many Belgian banks have implemented cost-reduction programmes over the past few years. Their efforts slowly seem to be starting to bear fruit, as shown by the decline in total operating expenses in the past two years to € 13.5 billion in 2020 (–3 %), mainly resulting from lower staff expenses (–5 %). It is more difficult for banks to reduce general and administrative expenses, especially in the short term, given, for example, the IT investments which are necessary for banks in order to keep pace with the increasing digitisation of the financial world. However, such investments will also help banks to operate more cost-efficiently in the future and increase their long-term viability in an environment where digital non-bank financial players are entering certain niche markets (such as the payments market). In 2020, Belgian banks' IT expenses amounted to € 1.8 billion, which is 30 % of total general and administrative expenses.

The challenges related to low interest rates, competition, digitisation and cost-efficiency are more pronounced for medium- and small-sized banks with a retail-oriented business model. Compared to large universal banks, these banks have a less diversified revenue model as most of their income is derived from the interest-rate differential between short-term savings deposits and long-term mortgage loans and investments. In some cases, this is also coupled with less sophisticated hedging strategies for the interest rate risk related to these activities. Moreover, larger banks can take advantage of their greater scale by spreading the costs for aspects such as IT investments in digitisation or legacy costs of their physical network, across a wider asset base. As a result, large Belgian banks have shown a better and more resilient profitability and cost efficiency over the past

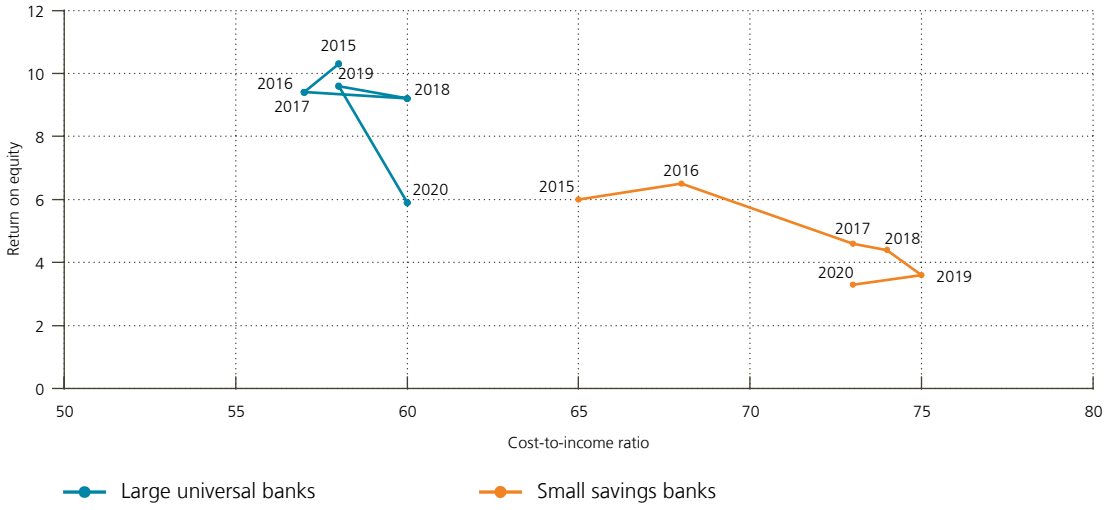
1 The two-tier system for remunerating banks' excess reserve holdings at the ECB is applied as of the reserve period starting 30 October 2019 and exempts part of banks' excess reserve holdings from the negative rate of 50 basis points applied to the deposit facility.

few years. Their average return on equity was relatively stable, at around 9.6 % between 2015 and 2019, while the ratio declined from 6 % to 3.6 % for smaller banks (Chart 15). Likewise, cost-to-income ratios amounted to 58 % on average for large banks but increased from 65 % to 75 % for small savings banks. However, in 2020, the implications of the crisis seem to have weighed more, so far, on the return on equity of large banks, which declined to 5.9 %, given their larger corporate loan books for which new provisions had to be recorded.

Chart 15

Profitability and cost-efficiency of large universal banks versus small savings banks[1]

(consolidated data, in %)



Source : NBB.

1 Excluding banks specialising in private banking.

In view of all of the aforementioned challenges, Belgian banks are up against some changes to their business models. Other – more specific – risks and challenges, such as those related to the management of IT and cyber risk or to anti-money laundering, will also have to be considered. Moreover, banks have to pay attention to the growing importance of climate-related risks and opportunities. For example, potential future measures to reduce greenhouse gas emissions, particularly those relating to the energy consumption of buildings, may entail risks for the banking sector given its considerable exposure to real estate markets. The Bank has recently published a new circular detailing its expectations and data-collection requirements as regards taking into account the energy efficiency of real estate exposures in banks' risk management[1].

1 Circulaire NBB_2020_45 (in French and Dutch).

3. Insurance sector

Solvency, credit and spread risks

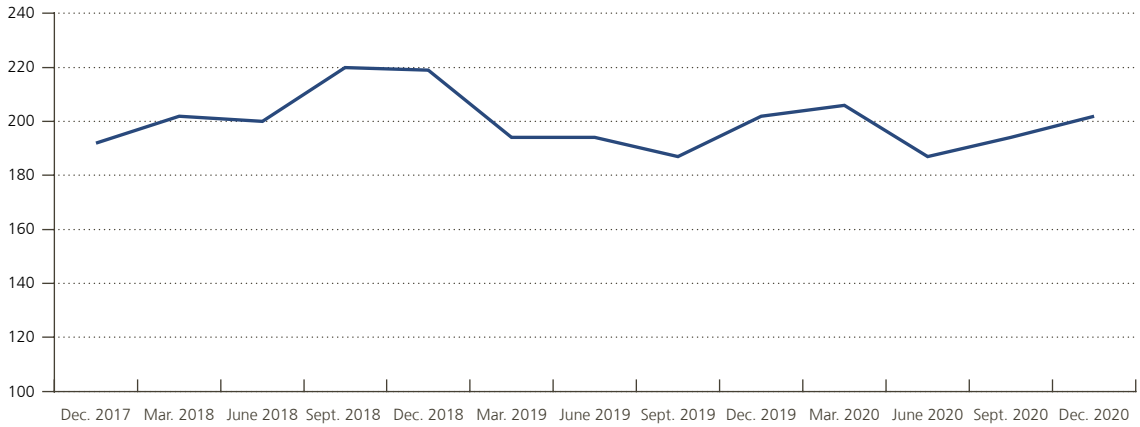
The insurance sector entered the coronavirus crisis with a healthy and robust financial position, and its solvency remained strong in 2020, notwithstanding a temporary dip in the Solvency Capital Requirement (SCR) ratio in the second quarter of the year. Developments in the real economy could affect the solvency position in the coming quarters however and credit and spread risk will require close monitoring.

During the first weeks of March 2020, the high volatility on the global financial markets did not lead to a deterioration of the average solvency position of the Belgian insurance sector thanks to an overcompensation of the volatility adjustment mechanism (see last year's Financial Stability Report). The negative impact on solvency accelerated somewhat in the second quarter of the year. Indeed, the materialisation of the 'double hit' shock pushed the SCR ratio down to 187 %, compared to 202 % at the end of 2019 (Chart 16). This shock was temporary, and the SCR ratio reverted upwards in the third and fourth quarters, coming back close to pre-crisis levels. This was thanks to the combined positive effects of the recovery of asset prices in financial markets on the market value of investment portfolios, and of the suspension of share buyback programmes and dividend pay-outs on companies' own funds (see below). By way of reminder, the "double hit" shock in the second quarter affected both asset and liability values in insurers' balance sheets. On the liability side, lower risk-free rates raised the assessed market value of the technical provisions, due to the lower discount factor. These lower rates likewise affected assets, as they also pushed up the market values of bonds, which account for 70 % of insurers' investment portfolio. On the other hand, the crisis pushed up risk premiums, causing – all other things being equal – a depreciation in the market value of selected assets in the investment portfolio. All told, the increase in the market value of assets was smaller than that of liabilities, automatically reducing the value of insurers' own funds.

Chart 16

Solvency capital requirement ratio

(in %)



Source : NBB.

The aforementioned good performance in terms of solvency was, however, heterogeneous from one company to the other. The specific COVID-19 monitoring by the Bank showed that companies with a more restricted scope of activities, a higher duration mismatch between assets and liabilities, or a less diversified investment portfolio generally faced a higher negative shock on their solvency.

To safeguard insurers' capital positions in view of coronavirus-related economic uncertainties, the Bank, in its capacity of micro- and macroprudential supervisor, and in accordance with the recommendations set out by the ESRB and EIOPA, recommended that each insurance and reinsurance company active on the Belgian market temporarily suspend dividend distributions and own share buybacks and to be particularly prudent in terms of paying variable remuneration. In January 2021, the Bank extended this recommendation of suspension, at least until the end of September 2021, unless companies take a very cautious approach to implementing the distributions, based on a set of criteria in terms of solvency and level of distribution (see NBB Circular 2021_005 for further details).

Looking ahead, solvency of insurers could weaken on the back of defaults, credit downgrades and changes in the valuation of asset exposures to the private and public sector. The following sections will provide more details about this potential transmission of shocks in the real economy, starting with an overview of corporate, equity and commercial loan investment portfolios in light of the crisis. A second section then focuses in more detail on commercial and residential real-estate exposures, their characteristics and evolution through time, followed by a third section on exposures to the public sector.

Insurers' assets could be negatively impacted when support measures for the non-financial private sector come to an end and credit risk starts to materialise in the real economy

The insurance sector provides significant financing to financial and non-financial companies through direct investments in corporate bonds and equity, as well as by granting commercial loans. For several years now, the sector also provides financing to households by granting mortgage loans.

As shown in section 1, several economic sectors' turnover was heavily impacted by the pandemic. Belgian insurers' exposures towards these sectors are relatively limited in the corporate and equity portfolios, but also in the commercial loans portfolio. All in all, these exposures represented less than 2 % of the sector's total investment portfolio at the end of 2020. That being said, other sectors have benefited too from massive fiscal, monetary and prudential policy support measures. The insurance sector's investment portfolio could therefore be impacted more broadly when support measures put in place by public authorities – such as moratoria on loans and bankruptcies – expire, and cliff effects materialise on corporate and household solvency.

At the end of 2020, about 53 % of Belgian insurers' corporate bond portfolio, i.e. around € 32 billion, concerned corporations in the banking, manufacturing and construction/real-estate sectors (Table 1). These sectors, which have remained rather resilient despite the pandemic, could suffer cliff effects as well as the negative spillover of the deterioration of macroeconomic conditions. The related credit risk in the corporate bond portfolio would materialise through rating downgrades, which would decrease the market values of the bonds in insurers' investment portfolio and would require higher regulatory capital requirements to be booked on their balance sheet. This could be particularly relevant for the 36 % of the sector's corporate bonds portfolio carrying a BBB rating, 17 % of which relate to the three aforementioned sectors (Chart I1 in Annex). A small notch downgrade could therefore push this bulk of bonds below investment-grade status and trigger higher capital requirements and/or fire sales.

Table 1

Corporate bonds portfolio broken down by main sectors

(non-consolidated data for the end of 2020 at market value ;
in € billion, unless otherwise stated)

	Exposures	Share in the relevant portfolio (in %)
Banking activities	14.1	23
Manufacturing	11.8	19
Construction and real-estate activities	6.8	11
Other sectors	6.4	10
Electricity, gas and steam	5.7	9
Financial activities excluding bank and insurance	5.6	9
Information and communication	4.9	8
Transportation and storage	3.4	6
Insurance activities	1.7	3
Unknown sector	0.6	1
Total	61.0	100

Source : NBB.

Equity investment accounted for € 23 billion or 7 % of the sector's investment portfolio (excluding unit-linked assets) at the end of 2020. These exposures were mainly directed towards companies involved in financial activities (excluding banks), construction and real-estate activities and the manufacturing sector (Chart I1 in Annex).

Finally, when looking at indirect exposures through commercial loans granted by the insurance sector to the real economy, 62 % of them related to the financial, construction/real-estate and banking sectors (Table 2). It cannot be ruled out that credit and default risks also partially materialise in this portfolio when support measures come to an end.

The risk of a property market correction could weigh on insurers' real-estate exposures

Belgian insurance companies are major institutional investors in commercial real-estate (CRE). Their direct and indirect exposures have grown every year and, by the end of 2020, amounted to € 30.1 billion or 10.2 % of the sector's investment portfolio (excluding unit-linked assets) (Chart 17). The exposures mainly consisted of commercial loans (€ 7.2 billion), real-estate properties (€ 8.1 billion) and equities and bonds issued by companies operating in the construction and the real-estate sectors (€ 6.4 billion and € 6.9 billion respectively). The increase observed for many years has been mainly driven by higher investments in corporate bonds and commercial loans. As discussed in section 1, the market seems to consider the possibility of negative changes in the valuation of these CRE exposures in the short/medium term as a result of the changes brought in by the pandemic in terms of e-commerce and remote working.

Table 2

Loans and mortgages to companies, broken down by main sectors

(non-consolidated data for the end of 2020 at market value; in € billion, unless otherwise stated)

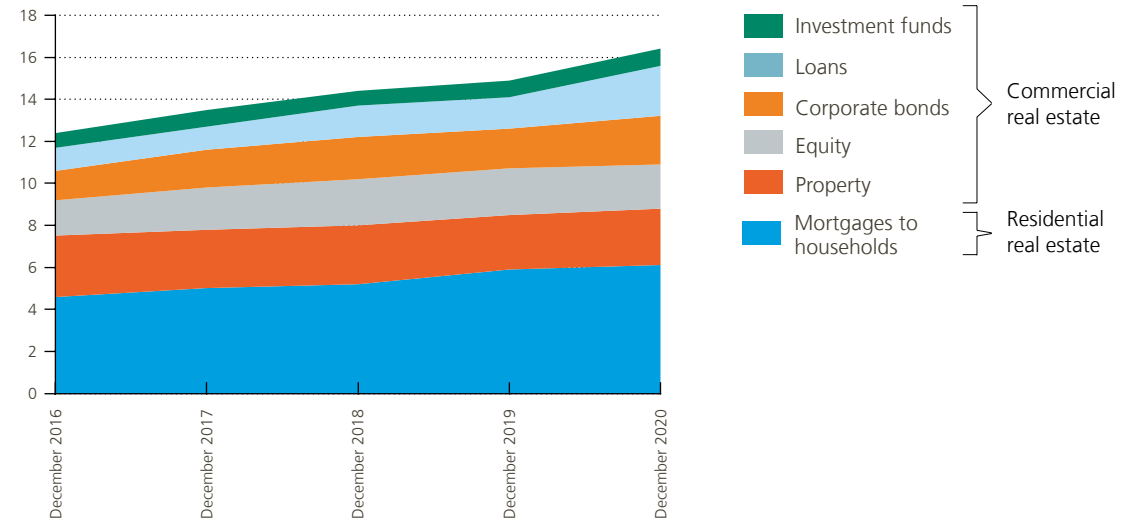
	Exposures	of which: Intragroup	Share in the relevant portfolio (in %)
Financial activities excluding bank and insurance	5.7	2.3	28
Construction and real-estate activities	4.3	0.3	21
Banking activities	2.7	–	13
Public administration	2.1	–	11
Insurance activities	1.6	0.8	8
Unknown	1.5	–	7
Other sectors	1.4	–	7
Manufacturing	0.3	–	1
Electricity, gas and steam	0.3	–	1
Transportation and storage	0.2	–	1
Total	**20.0**	**3.4**	**100**

Source: NBB.

Chart 17

Insurers' exposures to commercial and residential real-estate

(non-consolidated end-of-period data, in % of total investment, excluding class 23 investments)



Source: NBB.

Insurers' exposures towards residential real-estate basically consist of mortgages granted to households, in Belgium or abroad. The weight of this asset class is growing slowly but steadily from year to year, representing no less than 6.1 % of the investment portfolio at the end of 2020, versus 4.6 % at the end of 2016. Mortgage loans originating outside Belgium (especially in the Netherlands) are the most dynamic growth factor in recent years. By the end of 2020, approximately 36 % of the mortgage loans portfolio pertained to loans issued abroad. The attractiveness of Dutch mortgages is partly linked to the fact that a high share of them are covered by the Dutch National Mortgage Guarantee. Dutch mortgages also have relatively long fixed-interest periods, a 30-year tenor being common in the Netherlands.

Similar to the CRE exposures, a price correction on the residential property markets could hit valuations of mortgages' underlying guarantees. While moratoria on mortgage loans have been granted by insurance companies in the same way as the banking sector, demand for such a measure was generally rather limited. The phase-out of these moratoria is therefore not expected to have a material impact. Some insurance companies have nonetheless booked provisions as a precaution to prepare for potential higher impairments once public support measures end.

Insurers have several incentives to hold mortgage loans on their balance sheet. In a low-yield environment, the growth in mortgage investment is partly driven by a search for yield as they provide an attractive risk/return profile with long maturities to match with life insurers' needs for long-term investment horizons. Mortgage loans also provide a strong positive diversification effect in the calculation of solvency capital requirements. As this asset class falls under the "counterparty default risk" module instead of the "market risk module", the low correlation between these two modules in the final SCR calculation is exploited, resulting in a decrease in the regulatory capital requirement. Also, bancassurance conglomerates may benefit, in terms of regulatory capital requirements, from booking mortgage loans with loan-to value (LTV) parameter below 80 % in their group's insurance segment balance sheet, as these assets may be accompanied by a lower capital charge for an insurance company, according to the Solvency II regulatory framework (compared to the Basel III framework). The Bank is keeping a close eye on this scope for potential regulatory arbitrage, for instance by using its annual survey that specifically focuses on mortgage loans. This survey, known as the "PHL Survey", documents developments in the credit standards of insurers' mortgage loans.

At the end of 2020, 28 % of the sector's portfolio carried an indexed loan-to-value ratio (ILTV) above 80 %. This proportion, and the evolution over time, varied from one company to another. Insurers that booked Dutch mortgages on their balance sheet in the past few years have a higher proportion of loans with higher LTV as Dutch mortgages are generally characterised by LTV above 90 %. In terms of debt service-to-income ratio at origination (DSTI-O), 40 % of the sector's portfolio carried a DSTI-O above 30 %, of which 5 % had a DSTI-O above 50 % by the end of 2020. Again, this proportion was highly heterogeneous across insurance companies. The Bank closely monitors the development of these debt service-to-income ratios because any increase in this parameter, and therefore in credit risk, is not accompanied by additional capital charges in the SCR calculation according to the current Solvency II framework.

The formal "comply or explain" reports that four insurance companies have submitted to the Bank following the introduction of the new macroprudential supervisory expectations for mortgage loans – in the beginning of 2020 – will be analysed in detail by the Bank together with the same reports submitted by the credit institutions.

High exposures to the public sector constitute a persisting vulnerability, should public debt sustainability concerns emerge in financial markets

At the end of 2020, sovereign bond investments amounted to € 144 billion, or 47 % of the investment portfolio (excluding unit-linked assets). While lower than the 50.5 % recorded at the end of 2016 as insurers gradually reduced their investments in this asset class due to the low interest-rate environment, this exposure was still relatively high in comparison with the EU average which amounted to about 30 %. Furthermore, this portfolio

was still characterised by a strong domestic bias as 51 % of the sovereign bonds were Belgian, the rest being mainly invested in the euro area (Chart I2 in Annex).

With the massive public support measures provided in all EU countries in the wake of the pandemic, rising sovereign debt has renewed concerns about debt sustainability over the medium term. At some point, the sovereign-insurance nexus could become a channel of risk transmission and contagion to the insurance sector in case of yield volatility on the financial markets, increase of spreads and/or sovereign rating downgrades. These negative spillovers would be especially damaging for life insurers, which hold 88 % of the insurance sector's total investment in government bonds and for which government bonds represented 48 % of their investment portfolio (excluding unit-linked) by the end of 2020 (Chart I3 in Annex).

Profitability and business models

Although the insurance sector remained profitable in 2020, the coronavirus crisis and the lower-for-longer interest-rate environment have put again the spotlight on potential additional medium-term challenges for the profitability and business models of the Belgian insurance companies.

In 2020, the insurance sector recorded a net bottom-line profit of € 2.8 billion, equivalent to an accounting return on equity of 12.5 %. This total net profit was higher than the € 2.3 billion recorded by the end of 2019 (Chart 18 and Table I4 in Annex) and positively influenced by two factors. The first factor was an improvement in the technical result of the non-life insurance sub-sector (by € 0.3 billion in comparison with 2019), mainly due to a combination of rather stable premium income and lower claims which boosted the underwriting profitability (see below). The second factor was an increase in the non-technical account (by approximately € 0.3 billion in comparison with 2019), which traditionally is a volatile component of the total net profits.

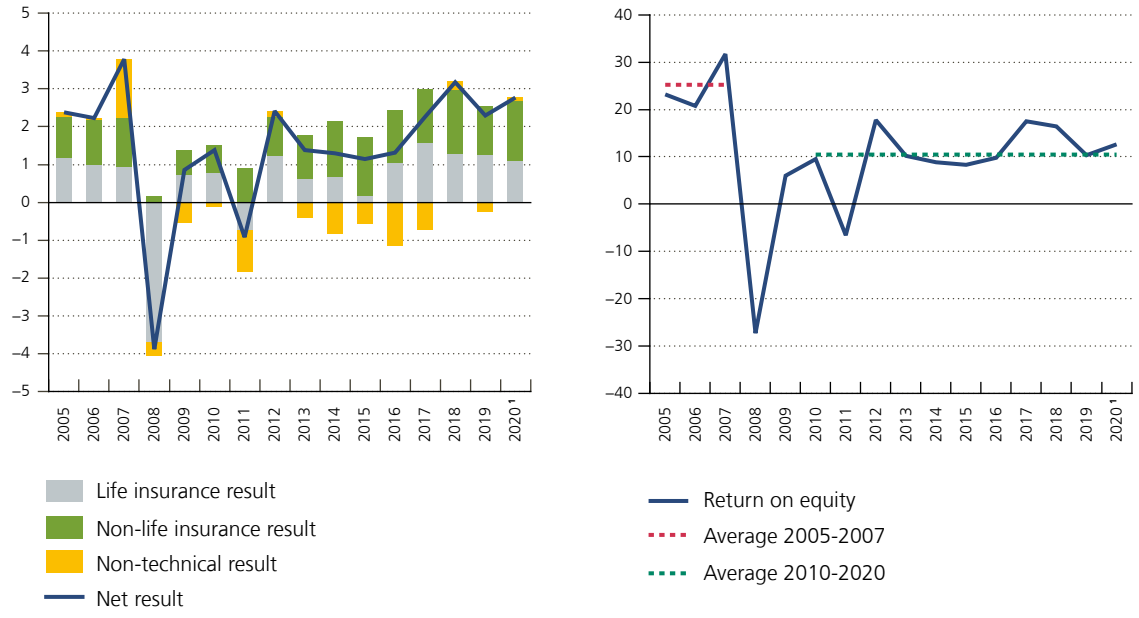
For its part, the life insurance sub-sector recorded a slightly decreasing technical result and reached € 1.1 billion, coming from € 1.3 billion in 2019. While the results of the life insurance activities improved compared to 2019, net investment income decreased.

At the aggregated level, the coronavirus crisis did thus not lead to a deterioration of the 2020 Belgian insurance sector' results, which demonstrated the resilience of the sector. However, uncertainty remains ahead as the pandemic's negative impacts on the sector's results could materialise with a certain time lag. Furthermore, the low interest rate environment will continue to weigh on life insurers' business models and investment portfolio reallocation (see below).

Chart 18

Net results and return on equity

(non-consolidated end-of-period data based on annual statutory accounts; in € billion, return on equity in %)



Source: NBB.

1 Provisional data.

Net earned premiums in the non-life business remained close to the levels observed in 2019 but the various lines of business recorded widely differing results. Lines that suffered the most from the economic recession and the lockdowns were credit and suretyship insurance, workers' compensation insurance and third-party liability motor insurance (Chart I5 in Annex). Non-life claims, in turn, dropped some 9 % on their numbers from the end of 2019 as lockdowns contributed to a reduction in almost all lines of business, with the notable exception of medical expense insurance for which a slight increase was recorded. This combination of stable premium income and lower claims boosted underwriting profitability and explains why the combined ratio decreased from 102 % in March to 94 % in December 2020 (Chart I6 in Annex).

The life business experienced a decline of 8 % in gross written premiums compared to 2019 (Chart I6 in Annex). This declining trend was recorded for guaranteed-return contracts (class 21) but also for contracts with non-guaranteed returns (class 23). For class 21 contracts, this is partly linked to the lower interest rate environment, while for class 23 contracts, the volatility episodes observed in the financial markets throughout the year certainly played an important role. Claims in the life sector rose by around 5 % from the level recorded in 2019, which is a deceleration in the growth rate observed in previous years.

Insurance activities' underwriting results were therefore clearly affected (both positively and negatively) by the coronavirus crisis. Additional effects cannot, however, be excluded as the supply and demand for insurance products could continue to adjust – albeit with lags – to the consequences of the major economic downturn last year, the pandemic and the lower-for-longer interest rate environment.

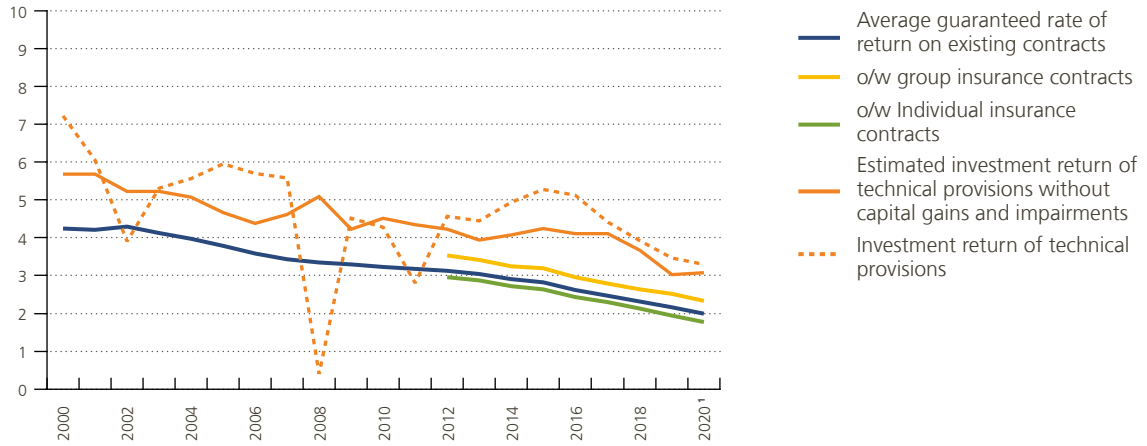
Looking ahead, structural profitability pressures could be further amplified, especially for life insurers, due to lower-yielding assets and future macroeconomic developments

The lower-for-longer interest rate environment and the associated gradual decline in average returns on the investment portfolio are harmful for those insurers – especially life insurers – that have long-term financial commitments to their clients at sometimes steep guaranteed rates entered into in the past. While life insurers have taken measures and managed to reduce average guaranteed rates on outstanding life insurance contracts from 2.62 % in 2016 to 1.99 % in 2020 (Chart 19 and Table I7 in Annex), reinvestment risk remains a challenge and could depress their future investment income as maturing assets are replaced by lower-yielding ones. This will put further pressure on life insurers to continue offering an attractive guaranteed rate on individual class 21 contracts but also on class 21 group contracts for which a current minimum guaranteed rate of 1.75 % must be provided, with the employer bearing the difference between what insurers still offer as a return and what was promised in the group insurance contract. For this reason, the progressive shift in insurers' supply from class 21 life contracts to class 23 would certainly carry on. As a reminder, class 23 life insurance contracts ("unit-linked" or "index-linked contracts") are linked to investment funds and are subject to stock market fluctuations. Therefore, they do not offer guaranteed returns to their policyholders, who bear all losses on the investments underlying the contracts themselves.

Chart 19

Life insurance guaranteed and investment returns

(non-consolidated end-of-period data, in %)



Source : NBB.
1 Provisional data.

The higher structural vulnerability in terms of profitability could lead to renewed risk-taking by insurance companies

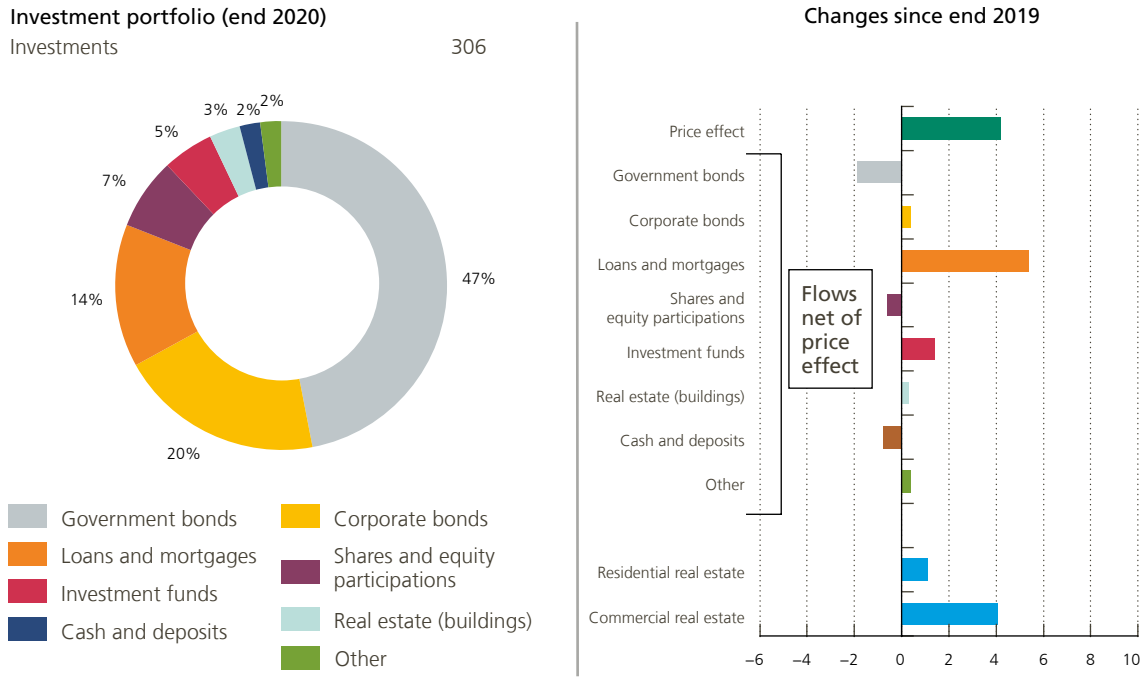
At the end of 2020, the investment portfolio (excluding unit-linked assets) reached € 306 billion, a rise as compared to the € 297 billion recorded at the end of 2019 due to price and volume effects. As shown in the left-hand panel of Chart 20, 67 % of the investment portfolio – or approximately € 206 billion – was composed of government and corporate bonds i.e. fixed-income assets. For many years now, a rebalancing of the investment portfolio has been observed, from fixed-income assets to higher-yielding but riskier and more illiquid assets. This phenomenon is motivated by search for yield in the low-for-long environment which weighs on fixed-income asset returns and therefore on profitability. This search for yield largely explains why

Belgian insurers are shifting an increasing part of their investment allocation mix towards commercial and residential real-estate through several direct and indirect exposures, but also towards investment funds. The right-hand panel of Chart 20 shows the shifts in investment asset allocation between December 2019 and December 2020, adjusted for the price effect. As insurers' balance sheets are expressed at market values under the Solvency II framework, all portfolio value changes boil down to a price effect, which arises from fluctuations in the value of the assets in the financial markets, and a volume effect (or net flow), which is calculated as the difference between the gross new purchase of assets in that asset class and the total amount of these assets that came to maturity or were sold.

Chart 20

Investment portfolio, excluding unit-linked assets

(non-consolidated data at market value, in € billion, unless otherwise stated)



Source: NBB.

The negative volume flow recorded for investments in government bonds was entirely attributable to one major insurance company, which significantly decreased the government bonds position in its portfolio in 2020. When excluding this company from the simulation, it appears that the sector's investments in government bonds were slightly positive in volume. However, significant disparities were observed between companies, some of them being net buyers of government bonds while others were net sellers or did not rollover mature bonds.

With regard to corporate bonds, investments remained slightly positive in volume at sector level. Again, strong disparities were observed among insurance companies in their attitude towards this kind of asset.

For its part, the equity portfolio contracted somewhat in volume in 2020 but this movement was certainly influenced by the renewed volatility observed in the global stock markets in the final weeks of the year.

Finally, the positive investment flows recorded towards investment funds, loans and mortgages were mainly attributable to several major market players, reflecting insurers' ongoing investment portfolio rebalancing in favour of riskier and/or less liquid assets.

Looking ahead, the pressures on profitability as well as the uncertainty surrounding future demand for insurance products could induce further risk-taking by insurers. In order to maintain sufficiently high investment income to cover their engagements towards policyholders, insurers will certainly continue to rebalance their portfolios towards riskier assets, but probably at a faster pace than before the pandemic. Insurance companies might seek to boost their returns by taking on more credit risk, liquidity risk and market risk, which may contribute to a fast-growing build-up of vulnerabilities in the sector. As this phenomenon is also expected to occur at a European level, several international institutions such as the ECB and the ESRB are reiterating their advice to national macroeconomic authorities to develop a specific macroprudential framework specially dedicated to non-banks, i.e. including the insurance sector.

The pandemic is a catalyst to foster the insurance sector's investments towards public infrastructure but also towards a more climate-friendly and digital environment

The insurance sector is prepared to actively participate in the Belgian Recovery Plan by investing in public infrastructure projects, among others. Infrastructure projects are generally prized by insurers as they are long-term investments usually offering an attractive return as well as, in case certain conditions are met, an advantageous prudential treatment under the Solvency II framework. Furthermore, these projects are often backed by guarantees from public authorities. Up to now, due to a lack of domestic projects, insurance companies' public infrastructure investments were often made abroad, including in France, Germany and Poland. The Recovery Plan will therefore create opportunities to drastically increase insurers' investments in projects located in Belgium. The insurance sector could also participate in fostering the recovery through other channels, such as increasing investments dedicated to climate and energy transitions.

Insurers are exposed to physical and transition risks. These could be on the liability side of their balance sheets when climate disasters (such as floods, storms, hailstorms etc.) spark higher insurance payouts. But they could also be on the asset side in the event of depreciating investment in industries that may themselves be vulnerable to physical risks and the risks of transition towards a low-carbon economy (*for further details, see thematic article "Financial stability risks related to climate change" in the 2018 NBB Financial Stability Report*). With respect to physical risks, the lion's share of Belgian insurance companies' exposures is in countries where the impact of global warming can be expected to be low. Regarding the risks of transition towards a low-carbon economy, an estimate can be made based on a sectoral breakdown of energy intensity of Belgian insurance companies' exposures through their corporate bonds, equity and loans investment portfolios. When looking at exposures by the end of 2020, it came out that approximately 57 % of the insurance sector's investments were directed towards less energy-intensive sectors in terms of greenhouse gas emissions. The rest, i.e. 43 % of the portfolio, related to investments in sectors with a more negative environmental footprint, to varying degrees. The situation, however, showed disparities between insurance companies, some of them being more advanced in considering climate footprint issues in their investment strategies.

Finally, the pandemic will also contribute to accelerating the pace of digital transformation and product innovation in the insurance sector. The rise of widespread remote work, which could become a structural trend in the future, has put an additional emphasis on cybersecurity. Equally, lockdowns and social distancing have accentuated the need for more online insurance services. Through a survey sent to the insurance sector, the Bank collected information on the way insurance companies incorporate cyber risk in their internal operational risk management (identification, reporting, incident management, etc.) and how they take into account direct and indirect cyber risks in their insurance products. Regarding digitisation, the Bank and EIOPA are currently analysing how digitisation and insurtech impact the insurance sector (e.g. artificial intelligence, big data, open insurance, telematics, etc.).

4. Non-bank financial sector

On 6 May 2021, the NBB and FSMA published the new edition of the annual monitoring report on asset management and non-bank financial intermediation (NBFI) in Belgium. This constituted the third follow-up of the first publication of such a report in 2017.

As market-based financing provides a valuable alternative to bank funding and helps to support real economic activity, it is a welcome diversification of credit supply from the banking system, and provides healthy competition for banks. The shift towards more market-based financing also provides investors with valuable investment opportunities. This is also the reason why the European Commission continues to foster a further development of market-based financing as part of its action plan on the Capital Markets Union (CMU). Yet, if market-based financing is involved in bank-like activities such as maturity or liquidity transformation and facilitating or creating leverage, it may nevertheless contribute to risks to financial stability and create additional risks for investors, either directly or through its interconnectedness with other sectors.

In this respect, the coronavirus crisis and the related "dash for cash" in financial markets in March 2020 revealed a number of vulnerabilities in specific sub-segments of the money market fund sector and some open-ended investment funds investing in less liquid assets, such as certain segments of the corporate bond market and real-estate. While interventions by central banks and national authorities contained the spillover from these developments, they also triggered a number of regulatory and supervisory actions to review and address these vulnerabilities. Following the market turmoil and concerns related to the potential materialisation of liquidity risks, Belgian money market funds and other Belgian public open-ended investment funds were monitored very closely as of March 2020. This monitoring allowed the FSMA to track net inflows or outflows for certain segments and specific funds. It showed that the Belgian public open-ended investment fund industry was overall strongly resilient to the market developments in March, which can be considered a "live stress test" for the Belgian investment fund industry, as it replicated some of the market dynamics and challenging liquidity conditions that regulators have had concerns about over the last few years. While some Belgian public open-ended investment funds saw considerable redemptions during this period, all redemption requests could be managed. None of these funds had to suspend redemptions.

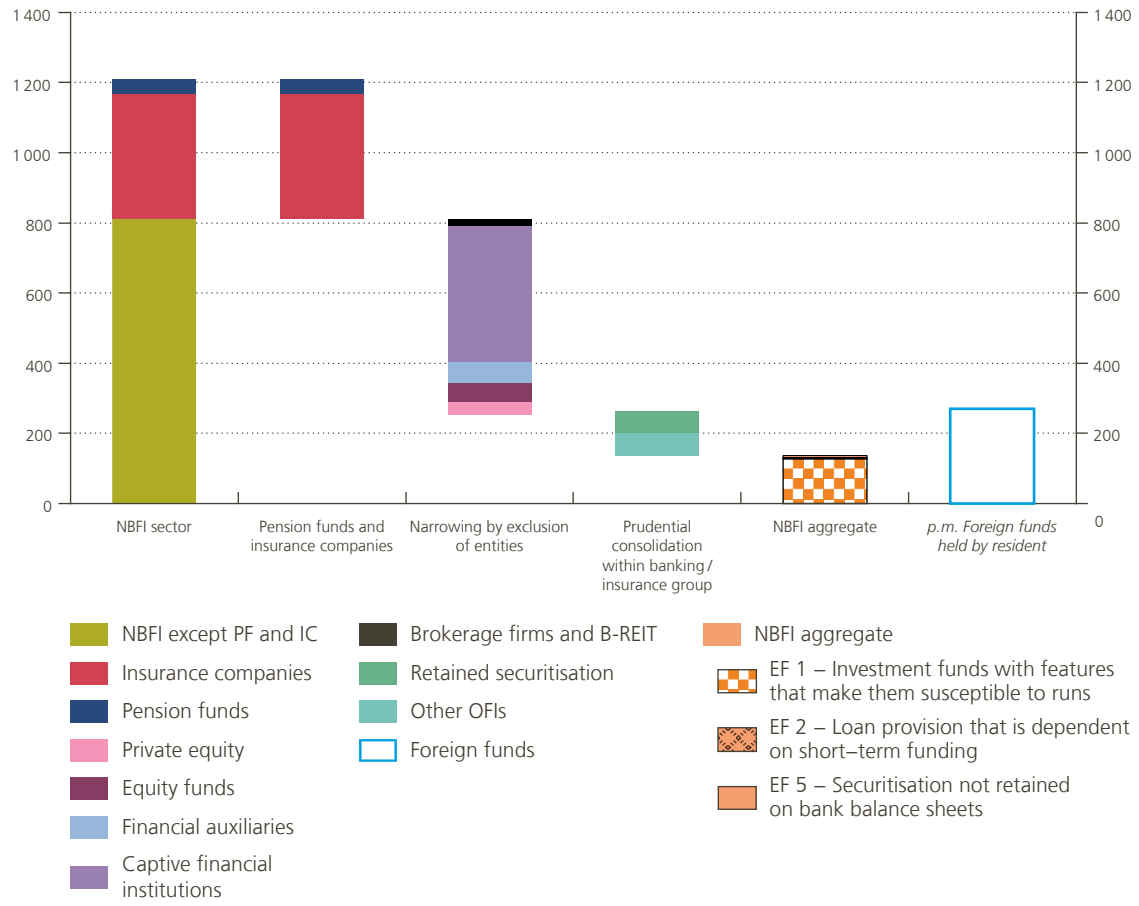
The size of the asset management sector in Belgium depends on the yardstick used to measure it and on the mark-to-market changes in the value of assets under management in line with global capital market developments. Net assets of Belgian investment funds, at the core of the asset management sector, rose to € 191 billion at the end of 2020 (up from € 185 billion at the end of 2019), while assets under the management of Belgian asset managers climbed to € 269 billion. Assets generating fee and commission income for Belgian banks, which also include foreign investment funds distributed to Belgian residents, reached € 621 billion at the end of 2020. Most of these assets are part of authorised or registered investment funds, life-insurance policies, or Belgian institutions for occupational pensions (IORPs), while others are simply client portfolios managed on a discretionary basis by the banks themselves.

The Belgian NBFI sector that undertakes "credit intermediation involving entities and activities outside the regular banking system, and therefore lacking a formal safety net" has been very stable in recent years. Under the FSB framework, its size amounted to € 138 billion at the end of September 2020, compared to € 137 billion at the end of 2019, € 139 at the end of 2018 and € 148 billion at the end of 2017. The way in which this narrow measure is delineated, starting from the total broad non-financial intermediation aggregate of more than € 1000 billion, is illustrated in Chart 21. The starting point is the broad NBFI sector that consists of a wide variety of financial entities, not all of which should be considered to pose bank-like financial stability risks. Therefore, the FSB narrows down this concept towards non-bank credit intermediation that poses bank-like risks to the financial system and is undertaken by entities that are not part of the prudential consolidation scope of a banking/insurance group. These bank-like risks are maturity transformation, liquidity transformation, leverage and credit risk transfer.

Chart 21

Delineation of the non-bank financial intermediation aggregate (narrow FSB definition)

(in € billion)



Source: NBB.

Using the five economic functions defined by the FSB to arrive at this narrowing down, it appears that the bulk of the Belgian NBFI narrow measure consists of investment funds classified under economic function 1, which include the Belgian money market and non-equity investment funds, almost all open-ended and hence susceptible to a 'run risk'. The second category of the Belgian NBFI narrow measure is economic function 2, dealing with loan provision that is dependent on short-term funding. This bank-like loan intermediation is performed by financial entities such as leasing and factoring companies, consumer and mortgage lenders and other entities that are not consolidated in a banking/insurance group. It has remained stable at a low level in recent years (€ 2.4 billion in September 2020). The third and final category of the Belgian NBFI narrow measure is classified under economic function 5 and consists of securitisation activities by financial vehicle corporations that are not retained on the balance sheets of Belgian banks. At the end of September 2020, it amounted to € 6.4 billion, also very close to the levels seen in previous years.

Under the narrower EBA framework that focuses on money market funds and some types of highly leveraged alternative investment funds, it amounted to € 14 billion at the end of September 2020.

Aggregate numbers on the size of asset management and NBFI sectors should not be used as a prima facie measure of underlying risks (or changes therein). They can only serve as a starting point for delving deeper into the very heterogeneous nature of the underlying assets and liabilities and their links with other sectors of the economy. This interconnectedness of Belgian residents with the worldwide NBFI sector is another aspect covered in the report published on 6 May. And here again, the aggregates and related conclusions remain in line with those of previous reports. For banks, interconnectedness relates largely for example to transactions with NBFI entities that are part of the same (bancassurance) conglomerate and all fall under the consolidated group supervision of this conglomerate, while transactions with non-related NBFI counterparties pertain mainly to bank deposits and secured financing transactions with other financial intermediaries (OFIs). The interconnectedness of insurance companies, pension funds and households with NBFI-entities worldwide mainly follows from their investment fund holdings, with limited interconnections on the liability side. Most of the mortgage loan securitisation in Belgium is retained on the balance sheet of Belgian banks, and therefore within the scope of consolidated bank supervision. This is also true for most consumer credit companies in Belgium, which are often a subsidiary of a Belgian bank. The interconnectedness of non-financial corporations is limited and ensues mainly from the funding received from leasing and factoring companies, and to a lesser extent from private equity firms. Here again, as most leasing and factoring companies are subsidiaries of Belgian banks, they are excluded from the NBFI sector because they come within the scope of bank supervision.

In that perspective, and following an assessment of the drivers of recent changes in the key statistics for the Belgian asset management and NBFI sectors, the rather reassuring qualitative findings and conclusions from the initial 2017 report on the systemic financial risks associated with asset management and NBFI still remain broadly unchanged. As demonstrated by the March 2020 "dash for cash", vulnerabilities persist though in the NBFI sector worldwide, and can have indirect spillovers into the stability of the European financial system. Ongoing European and international efforts to address remaining vulnerabilities in the global NBFI sector therefore receive strong support from the Belgian authorities.

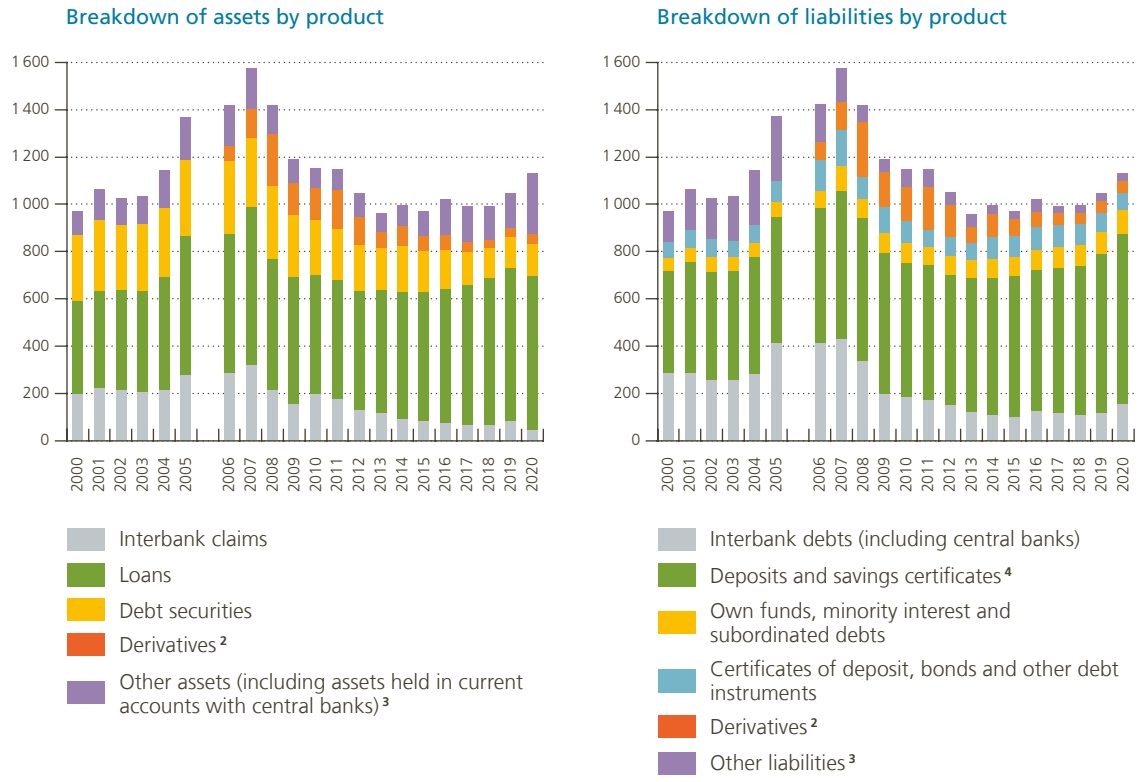
5. Additional charts and tables

5.1 Banking sector

Chart B1

Balance sheet structure [1]

(consolidated end-of-period data, in € billion)



Source: NBB.

1 Data compiled according to Belgian accounting rules (Belgian GAAP) until 2005 and according to IAS/IFRS standards from 2006.

2 Derivatives are recognised at market values, including – from 2007 – income receivable and expenses payable.

3 "Other assets" mainly include balances with central banks, shares, tangible and intangible assets and deferred tax assets. "Other liabilities" are primarily short positions, liabilities other than deposits and debt securities, provisions and liabilities for defined benefit obligations. From the third quarter of 2014, liabilities linked to transferred assets are no longer recognised under "other liabilities"but are included under different items on the liabilities side.

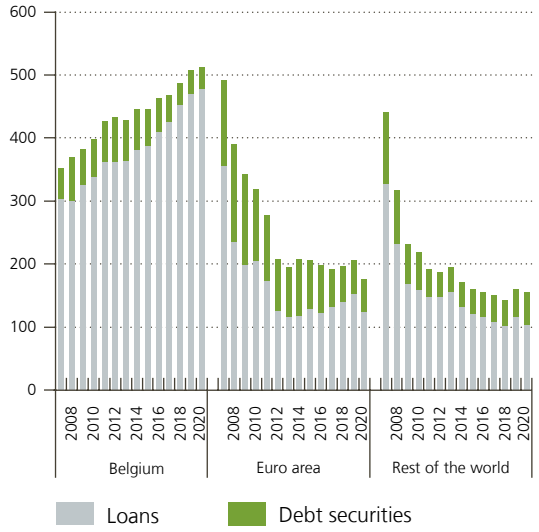
4 From the third quarter of 2014, savings certificates are no longer included in "deposits and savings certificates"but are recorded under "certificates of deposit, bonds and other debt instruments".

Chart B2

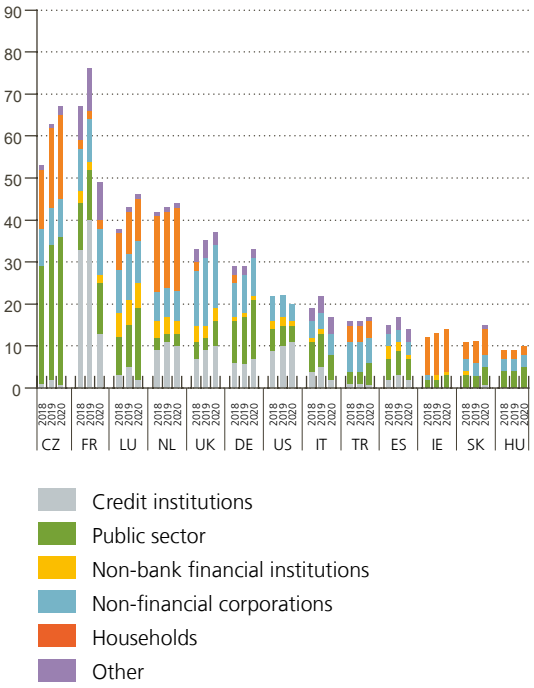
Geographical and sectoral breakdown of assets held by Belgian banks

(consolidated end-of-period data, in € billion)

Geographical breakdown of loans and debt securities [1]



Position on the main foreign markets, by counterparty [2]



Source: NBB.

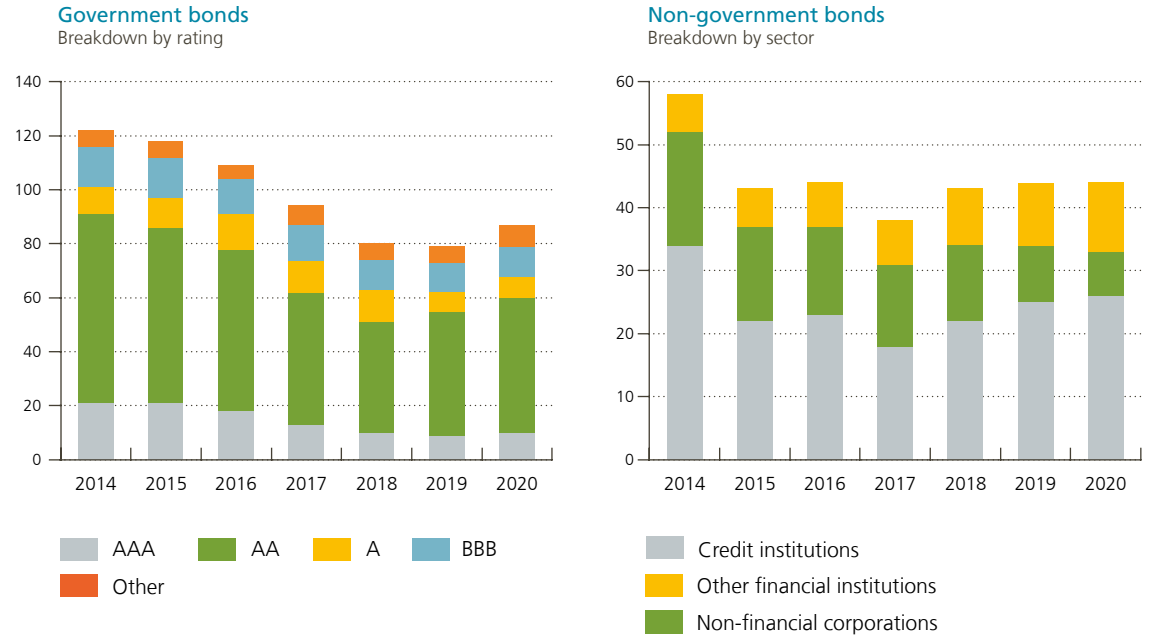
1 Gross carrying amounts, excluding exposures to central banks.

2 Ultimate risk basis, i.e. after guarantees and other risk transfers.

Chart B3

Belgian banks' bond portfolio

(consolidated end-of-period data, in € billion)



Source: NBB.

Table B4

Sectoral breakdown of Belgian banks' outstanding loans to non-financial corporations (NFCs)

(consolidated data, at the end of 2020, gross carrying amounts, in € billion)

	Total	Belgian NFCs	Foreign NFCs
Total outstanding loans to non-financial corporations	250.3	160.9	89.3
of which:			
Wholesale and retail trade	40.0	26.0	14.0
Manufacturing	36.3	17.0	19.3
Real estate activities	35.0	27.2	7.7
Construction	27.2	19.6	7.6
Professional, scientific and technical activities	18.8	16.1	2.7
Human health services and social work activities	15.3	13.8	1.5
Transport and storage	14.3	7.5	6.7
Electricity, gas, steam and air conditioning supply	11.3	5.0	6.3
Agriculture, forestry and fishing	11.2	3.5	7.7
Administrative and support service activities	10.7	6.7	4.0
Information and communication	6.8	3.0	3.8
Financial and insurance activities	5.8	3.9	1.8
Accommodation and food service activities	4.3	3.4	0.9
Water supply	3.0	2.1	0.9
Arts, entertainment and recreation	1.9	1.5	0.4
Mining and quarrying	1.5	0.2	1.3
Public administration and defence, compulsory social security	1.4	1.3	0.1
Education	0.6	0.5	0.2
Other services	5.1	2.6	2.4

Source: NBB.

Table B5

Belgian banks' exposures to the residential and commercial real estate market[1]

(consolidated end-of-period data, gross carrying amounts)

	2018		2019		2020	
	In € billon	In % of total assets	In € billon	In % of total assets	In € billon	In % of total assets
Residential real estate market						
Lending for house purchase	248.8	25.0	268.0	25.6	283.1	25.0
Loans collateralised by residential real estate	242.8	24.4	260.8	24.9	273.5	24.2
of which to Belgian residents	188.0	18.9	200.5	19.1	210.1	18.6
Commercial real estate market						
Loans to the commercial real estate sector[2]	55.3	5.6	59.2	5.6	62.2	5.5
of which to Belgian residents	41.5	4.2	44.2	4.2	46.9	4.1
Loans collateralised by commercial real estate	47.3	4.8	53.5	5.1	60.4	5.3
of which to Belgian residents	34.5	3.5	40.0	3.8	47.2	4.2

Source: NBB.

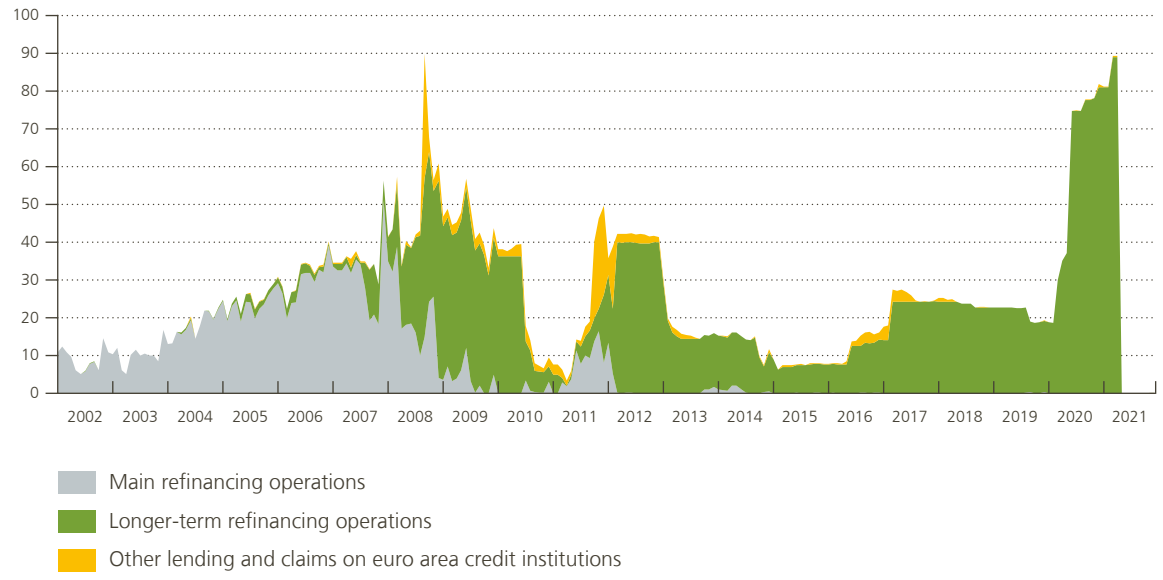
1 According to different concepts available in the reporting, which can be partly or largely overlapping.

2 Loans to the NACE sectors of construction and real estate activities.

Chart B6

National Bank of Belgium's claims on euro area credit institutions

(non-consolidated data, in € billion)



Source: NBB.

Table B7

Solvency ratios and breakdown of risk-weighted assets

(consolidated end-of-period data; in € billion, unless otherwise stated)

	2014	2015	2016	2017	2018	2019	2020
Tier I capital	53.4	55.1	60.0	63.0	63.0	65.4	70.9
Common equity Tier I capital	51.5	53.3	58.1	60.4	59.7	61.1	66.6
Risk-weighted assets	349.8	345.4	369.5	373.1	382.4	392.6	389.0
of which:							
Credit risk	290.1	282.8	308.1	315.3	315.8	322.2	321.0
Market risk	7.1	9.5	6.1	7.3	7.2	6.1	6.0
Operational risk	34.9	36.0	38.7	36.7	38.6	38.4	37.9
CVA[1]	8.2	6.9	5.5	4.3	4.5	3.9	3.1
Other	9.5	10.3	11.0	9.5	16.4	21.9	21.0
of which: based on Art. 458[2]	8.0	8.5	8.8	9.2	16.1	17.0	17.5
Tier I capital ratio (in %)	15.3	16.0	16.2	16.9	16.5	16.7	18.2
Common equity Tier I ratio (in %)	14.7	14.8	15.2	15.9	15.6	15.6	17.1
Leverage ratio (in %)	4.7	4.8	5.5	5.9	5.9	5.8	6.6

Source: NBB.

1 Credit valuation adjustment.

2 Additional stricter prudential requirements based on Article 458 due to modified risk weights for targeting asset bubbles in the residential and commercial property sectors.

Table B8

Belgian banks' funding structure and liquidity ratios

(consolidated end-of-period data; in € billion, unless otherwise stated)

	2015	2016	2017	2018	2019	2020
Total liabilities	970	1 022	994	993	1 048	1 132
Deposits	702	725	736	745	797	884
Central banks	16	23	29	26	26	87
General governments	22	24	26	27	27	30
Credit institutions	82	105	89	85	95	70
Other financial corporations	93	76	85	79	85	93
Non-financial corporations	148	133	132	140	149	163
Household deposits	340	364	374	389	415	442
Debt securities issued	99	106	106	98	91	86
Certificates of deposits	25	35	40	30	23	14
Covered bonds	21	24	23	28	26	28
Other debt securities issued	52	48	43	40	42	43
Derivatives	72	67	49	43	51	53
Other liabilities[1]	33	51	28	31	31	29
Equity	66	72	75	76	78	80
Liquidity coverage ratio (in %)	137	140	138	145	141	182
Customer loan-to-deposit ratio (in %)	90.8	94.9	95.5	97.5	95.9	89.0
Asset encumbrance ratio (in %)[2]	12.0	11.6	12.5	13.0	12.1	17.1

Source: NBB.

1 Including, among other tax liabilities, liabilities included in disposal groups classified as held for sale, short positions, and provisions and liabilities for defined benefit obligations.

2 Asset encumbrance ratio as defined in the Commission Implementing Regulation (EU) No 2015/79 (paragraphs 9-11 of Annex III), calculated as $\frac{\text{total encumbered assets + total collateral received and reused}}{\text{total assets + total collateral received and available for encumbrance}}$.
Here, as in the EBA methodology, assets are measured at the carrying amount and collateral is measured at fair value.

Table B9

Belgian banks' asset encumbrance in 2020

(amounts of collateral provided by source of encumbrance, consolidated data; in € billion, unless otherwise stated)

	Collateral type								Total collateral provided	Ratio of over-collateralisation (in %)
	Government bonds	Other bonds	Loans to households	Loans to non-financial corporations	Loans to financial institutions	Loans to central banks and general governments	Loans on demand	Other assets / collateral received		
Source of encumbrance										
Derivative transactions	2.4	0.6	0.3	10.5	8.5	–	0.9	3.3	26.4	112
Repo transactions and other deposits (excluding central banks)	22.4	1.4	0.9	0.4	0.0	2.0	–	0.0	27.1	150
Issuance of covered bonds	0.1	0.1	34.8	0.4	0.1	2.9	–	–	38.3	136
Issuance of ABS	–	–	3.8	0.9	0.0	–	0.1	0.0	4.8	109
Central bank funding (of all types: TLTROs, repos)	7.3	7.0	40.8	19.9	0.0	17.2	–	0.0	92.2	115
Other sources of encumbrance	5.4	2.5	2.8	0.7	0.2	–	1.4	0.1	13.0	131
Total encumbered assets and collateral received	**37.7**	**11.5**	**83.4**	**32.8**	**8.8**	**22.1**	**2.4**	**3.4**	**201.9**	**123**
Asset encumbrance ratio[1] (in %)	**31.8**	**15.3**	**21.0**				**1.3**	**2.8**	**17.0**	

Source: NBB.

1 Asset encumbrance ratio as defined in the Commission Implementing Regulation (EU) No 2015/79 (paragraphs 9-11 of Annex III), calculated as $\frac{\text{total encumbered assets + total collateral received and reused}}{\text{total assets + total collateral received and available for encumbrance}}$.
Here, as in the EBA methodology, assets are measured at the carrying amount and collateral is measured at fair value.

Table B10

Main components of Belgian banks' income statement

(consolidated data; in € billion, unless otherwise stated)

								In % of operating income	*p.m. P&L derived from foreign activities*
	2014	2015	2016	2017	2018	2019	2020	2020	
Net interest income	14.53	14.87	14.82	14.11	14.41	14.62	14.19	64.3	*4.50*
Non-interest income	6.16	7.10	7.62	8.94	8.25	8.48	7.87	35.7	*3.71*
Net fee and commission income [1]	5.34	5.87	5.63	5.62	5.58	5.57	5.59	25.3	*1.94*
(Un)realised gains or losses on financial instruments [2]	–0.06	1.17	1.50	0.86	1.22	0.53	0.01		*–0.24*
Other non-interest income	0.88	0.06	0.50	2.46	1.46	2.39	2.27		*2.01*
Total operating income (bank product)	20.68	21.97	22.44	23.05	22.66	23.10	22.06	100.0	*8.20*
Total operating expenses (–)	12.66	12.87	13.11	13.42	13.89	13.74	13.49	61.2 [5]	*4.10*
Staff expenses (excluding commissions paid to bank agents)	6.52	6.54	6.47	6.74	6.84	6.77	6.51		
General and administrative expenses (including depreciation)	6.14	6.33	6.64	6.68	7.05	6.97	6.99		
Gross operating result (before impairments and provisions)	8.02	9.10	9.33	9.63	8.81	9.36	8.57		
Total impairments and provisions (–)	1.35	1.30	1.76	0.67	0.83	1.26	3.12		*0.87*
Impairments on financial assets at amortised cost [3]	1.30	1.15	0.90	0.41	0.61	1.05	2.77		
Impairments on other financial assets	0.00	0.02	–0.04	–0.07	–0.01	0.01	0.02		
Other impairments and provisions	0.05	0.13	0.90	0.34	0.23	0.20	0.32		
Other components of net operating income [4]	0.22	0.24	0.37	0.29	0.26	0.25	0.50		*0.15*
Net operating income	6.89	8.04	7.94	9.25	8.20	8.35	5.96		*3.57*
Tax and extraordinary profit or loss	–1.79	–1.22	–1.56	–2.64	–2.00	–1.78	–1.26		
Total profit or loss on discontinued operations	0.00	–0.05	0.03	0.00	0.00	–	0.00		
Net profit or loss including minority interest	5.10	6.76	6.41	6.61	6.20	6.57	4.70		*2.76*
p.m. Net profit or loss (bottom-line result)	*4.52*	*6.14*	*5.75*	*5.95*	*5.60*	*6.12*	*4.26*		

Source: NBB.

1 Including commissions paid to bank agents.

2 This item includes the net realised gains (losses) on financial assets and liabilities not measured at fair value through profit or loss, the net gains (losses) on financial assets and liabilities held for trading and designated at fair value through profit or loss, and the net gains (losses) from hedge accounting.

3 Data for the years before 2018 relate to impairments on loans and receivables (under IAS 39).

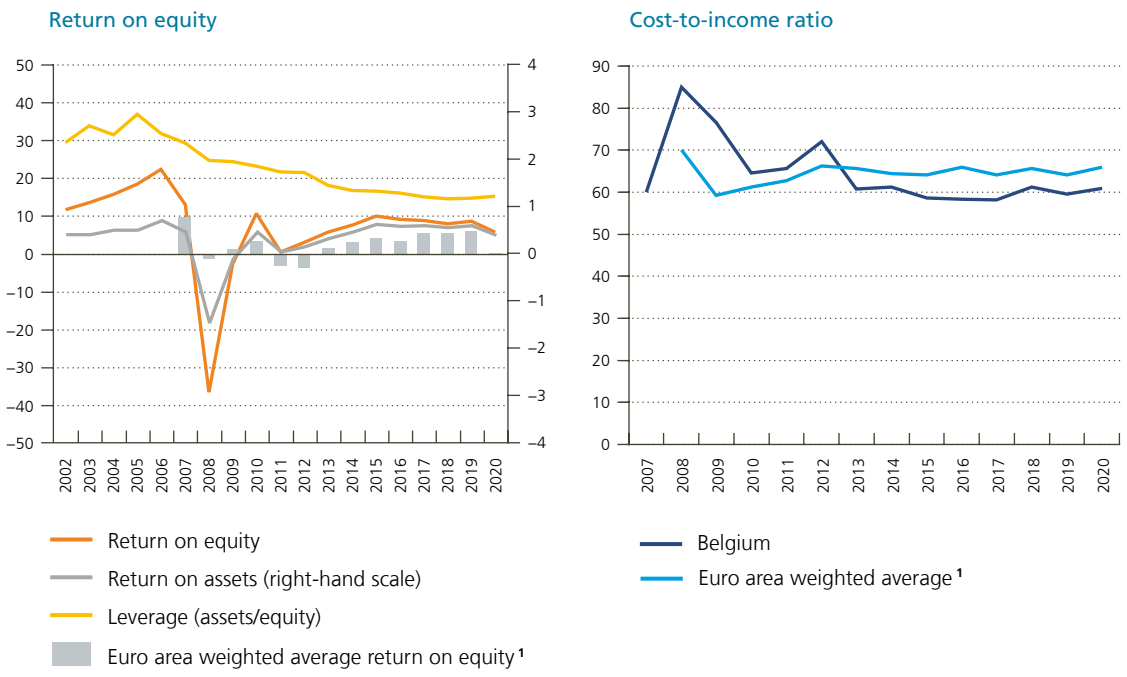
4 Other components of net operating income comprise the share in profit or loss of associates and joint ventures accounted through the equity method, and the profit or loss from non-current assets, disposal groups classified as held for sale not qualifying as discontinued operations, and the negative goodwill recognised immediately in profit or loss.

5 This figure is the cost-to-income ratio of the Belgian banking sector.

Chart B11

Return on equity and cost-to-income ratio

(consolidated data, in %)



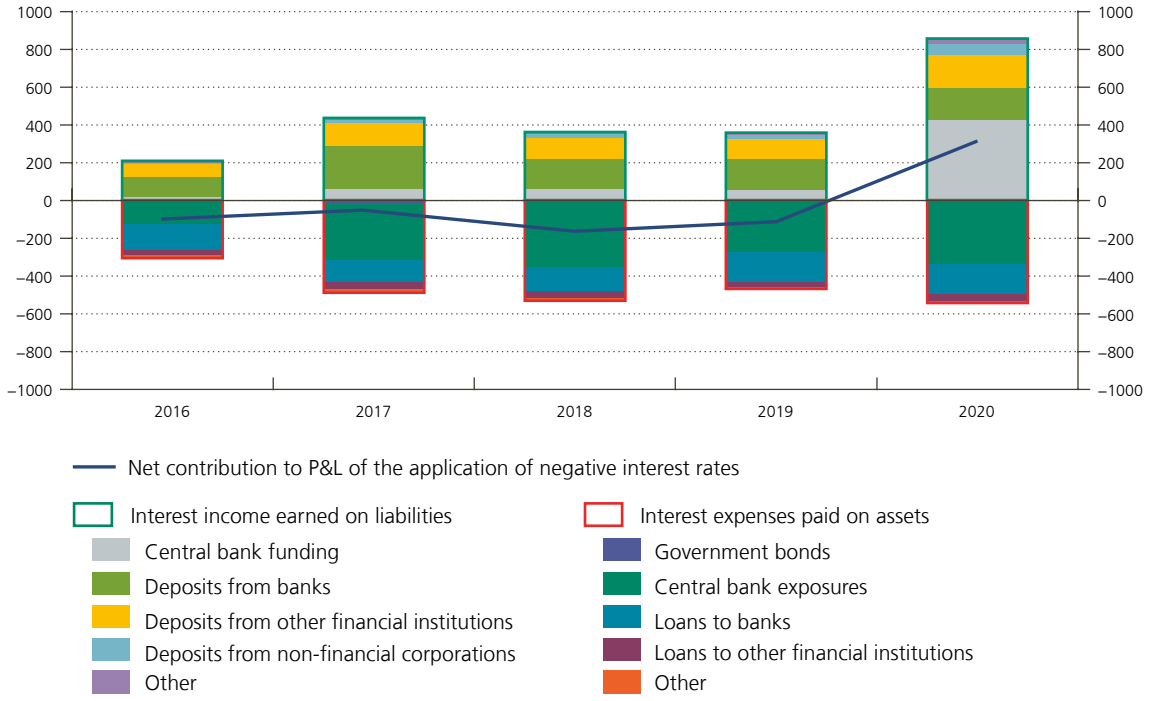
Sources: NBB, ECB.

1 Figures for 2020 for the euro area refer to the first 9 months of 2020 (annualised).

Chart B12

Impact on net interest income from the application of negative interest rates on both sides of the balance sheet

(consolidated data, in € million)



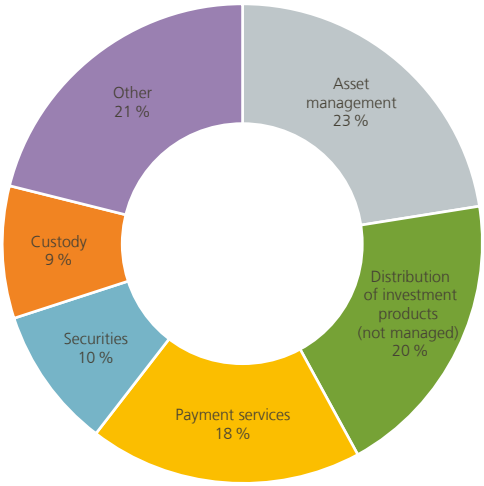
Source: NBB.

Chart B13

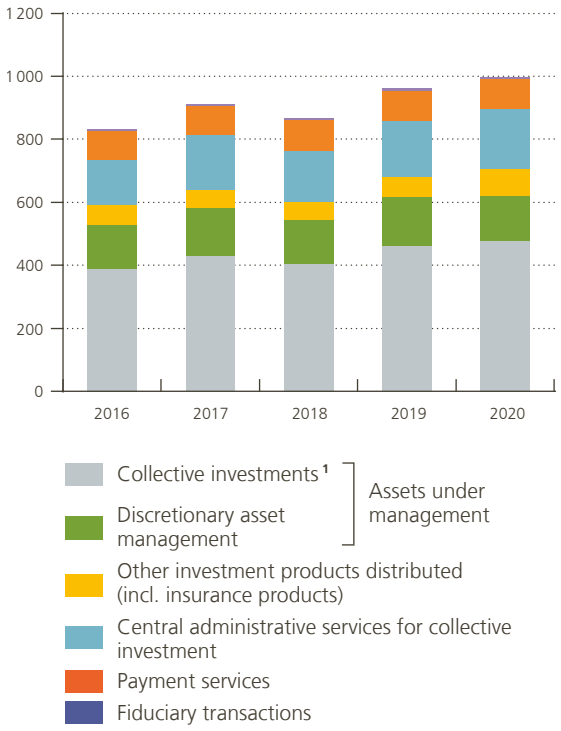
Breakdown of gross fee and commission income by source and assets involved in the services provided

(consolidated data)

Breakdown of gross fee and commision income by source
(in 2020, in % of total)



Assets involved in the services provided (excluding custody)
(end-of-period data, in € billion)



Source : NBB.

1 Collective investment products either managed by the banks (and their subsidiaries) themselves or sourced from other parties and distributed to their clients.

Table B14

Belgian banks' asset quality ratios

(consolidated end-of-period data, in %)

	NPL ratio						Ratio of performing forborne loans		Coverage ratio		
	Total exposures		Belgian exposures		Foreign exposures				Excluding collateral received		Including collateral received
	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2020
Total loans[1]	2.1	2.1	2.0	1.9	2.2	2.4	0.37	0.82	42.9	41.1	80.4
of which:											
Non-financial corporations	3.6	4.0	3.5	3.8	3.7	4.4	0.57	1.58	49.2	48.0	78.7
of which:											
SMEs	3.8	4.1	3.4	3.8	4.7	4.8	0.64	1.57	47.7	45.6	82.8
Loans collateralised by CRE	3.7	4.7	3.4	4.7	4.7	4.9	0.98	2.33	29.2	25.3	85.6
Households	2.0	2.0	1.5	1.7	3.6	3.2	0.45	0.94	29.0	26.4	86.4
of which:											
Residential mortgage loans	1.8	1.7	1.2	1.2	3.6	3.1	0.46	0.97	19.0	16.5	97.6
Credit for consumption	4.6	5.1	4.8	5.6	4.2	3.9	0.22	0.50	53.1	48.8	54.6

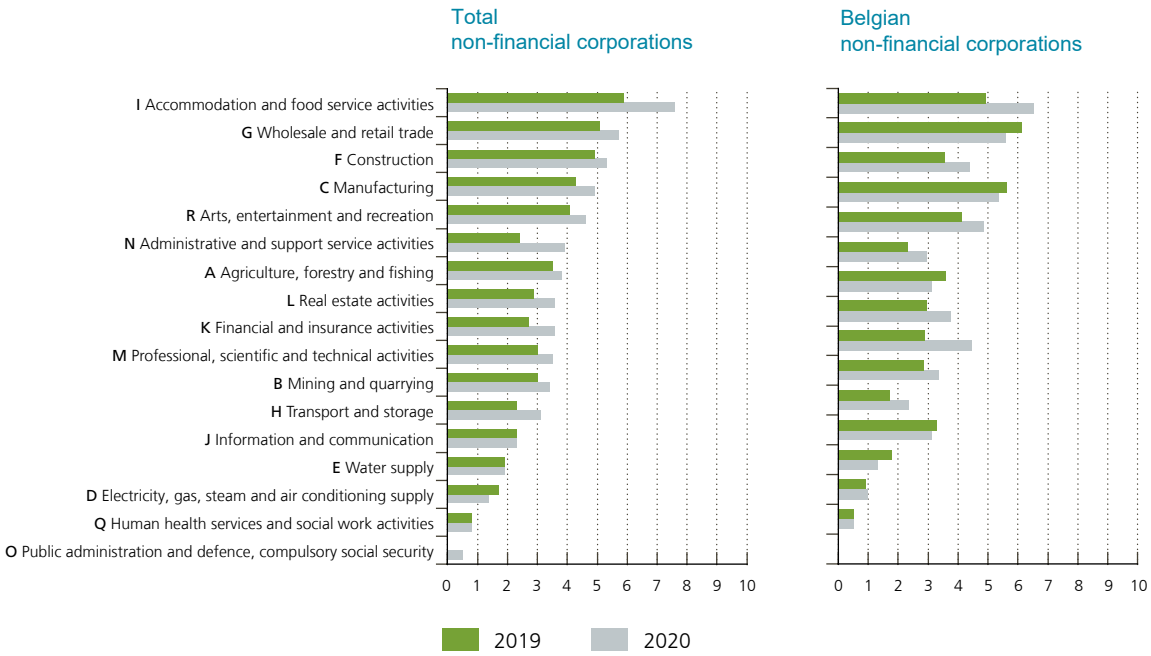
Source: NBB.

1 Including exposures to central banks, general governments, credit institutions, other financial corporations, non-financial corporations and households.

Chart B15

NPL ratio for non-financial corporations by corporate sector[1]

(consolidated end-of-period data, in %)



Source: NBB.

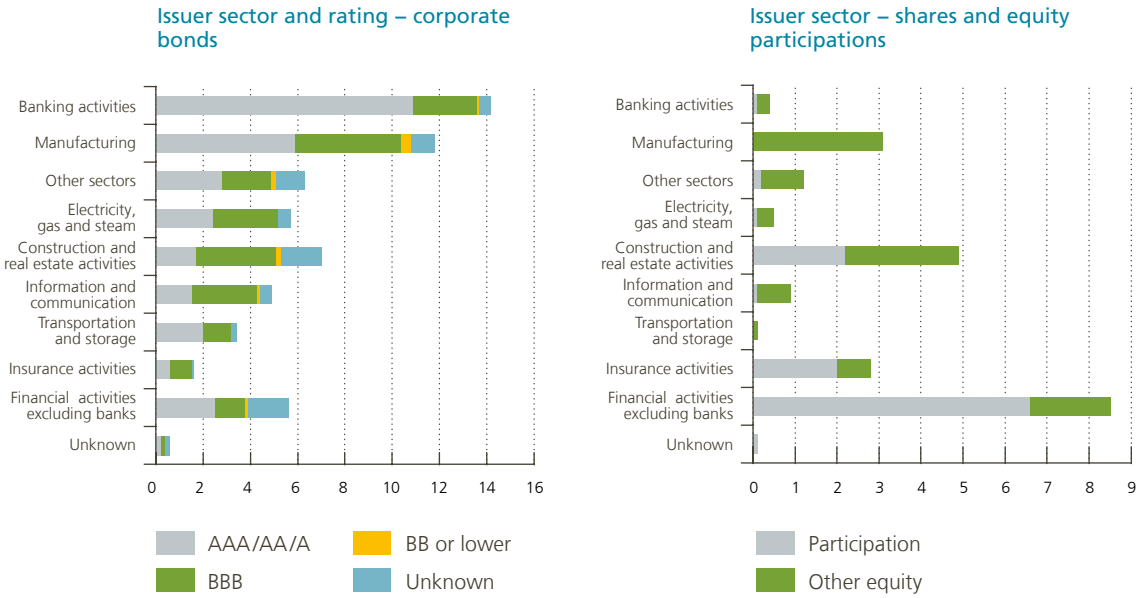
1 For sectors with total outstanding amounts larger than € 1 billion.

5.2 Insurance sector

Chart I1

Breakdown of corporate bond and equity holding portfolio by sectors

(non-consolidated data for the end of 2020 at market value, in € billion)

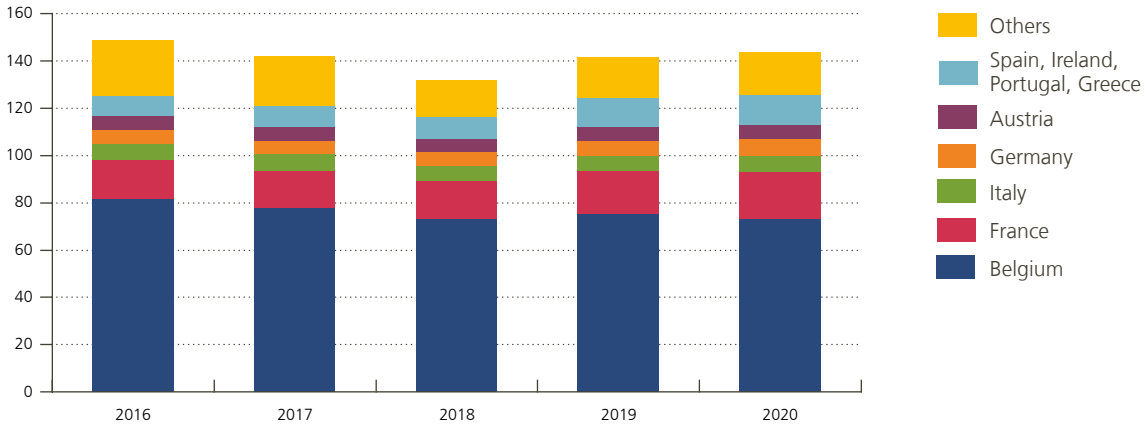


Source: NBB.

Chart I2

Geographical breakdown of public sector bonds

(non-consolidated end-of-period data at market value, in € billion)

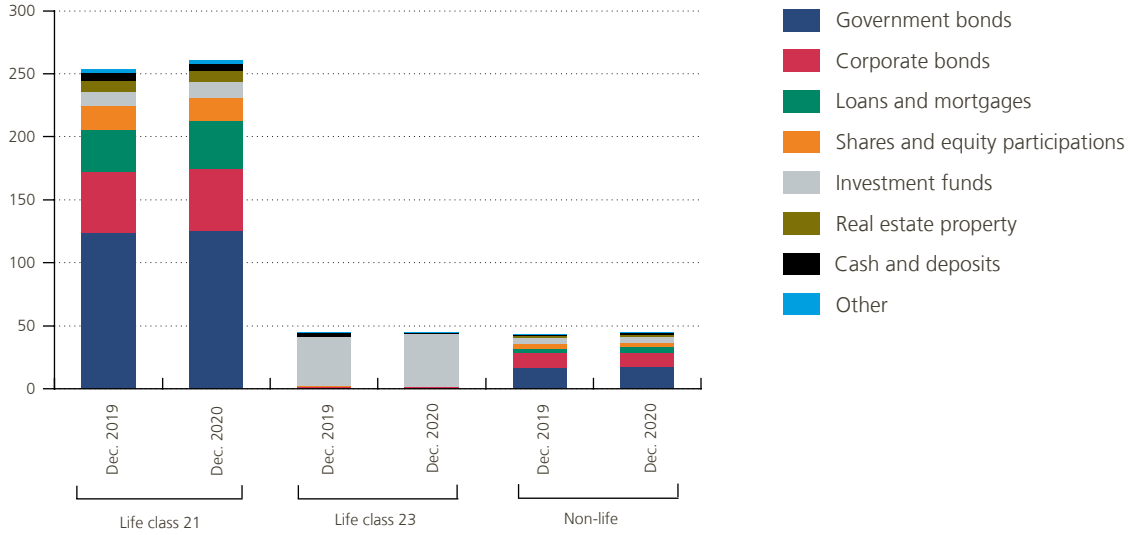


Source: NBB.

Chart I3

Composition of the covering assets per insurance activity [1]

(non-consolidated end-of-period data at market value, in € billion)



Source: NBB.

1 Excluding reinsurance activities.

Table I4

Main components of the profit and loss account

(non-consolidated end-of-period data based on annual statutory accounts, in € billion)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 [1]
Life insurance technical result	0.8	–0.7	1.2	0.7	0.7	0.2	1.1	1.4	1.3	1.3	1.1
Result of insurance activities	–7.1	–4.8	–8.3	–8.2	–9.3	–8.3	–7.3	–6.1	–2.5	–9.0	–4.9
Excluding adjustments for class 23	–5.9	–5.4	–6.5	–6.9	–7.3	–7.8	–6.5	–5.0	–4.8	–4.7	–4.3
Net investment income	7.8	4.1	9.5	8.9	10.0	8.5	8.4	7.5	3.7	10.3	6.0
Excluding adjustments for class 23	6.7	4.7	7.7	7.6	8.0	8.0	7.6	6.4	6.1	6.0	5.4
Non-life insurance technical result	0.7	0.9	1.0	1.2	1.5	1.6	1.4	1.6	1.7	1.3	1.6
Result of insurance activities	–0.4	0.1	–0.1	–0.1	0.2	0.3	0.1	0.4	0.6	0.1	0.8
Net investment income	1.2	0.8	1.1	1.2	1.3	1.3	1.3	1.2	1.1	1.2	0.8
Non-technical result [2]	–0.1	–1.1	0.1	–0.4	–0.8	–0.6	–1.1	–0.7	0.2	–0.2	0.1
Net investment income	0.2	–0.9	0.9	0.3	0.4	0.3	–0.2	0.4	1.0	0.6	1.0
Other results	–0.3	–0.2	–0.7	–0.7	–1.2	–0.9	–0.9	–1.1	–0.8	–0.9	–0.9
Net result for the financial year	1.4	–0.9	2.4	1.4	1.4	1.2	1.3	2.3	3.2	2.3	2.8

Source: NBB.

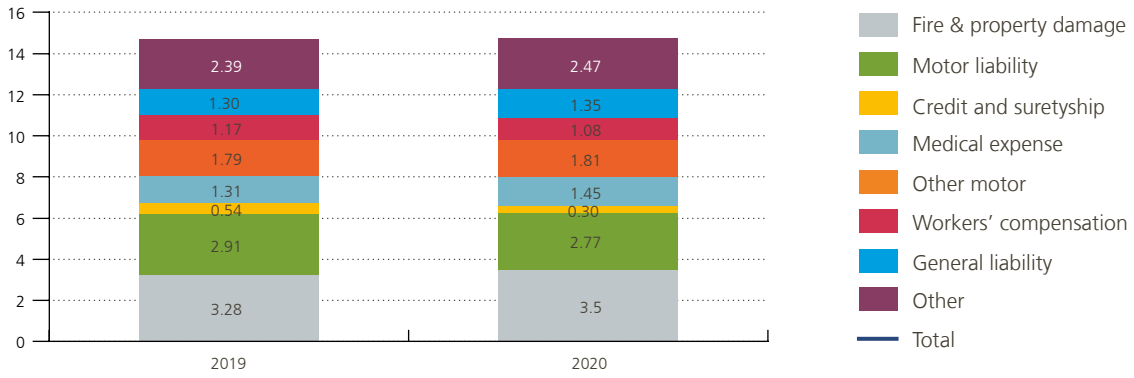
1 Provisional data.

2 The non-technical result includes investment income not attributed to life and non-life insurance activities, exceptional results and taxes.

Chart I5

Breakdown of non-life insurance net written premiums

(non-consolidated end-of-period data at market value, in € billion)

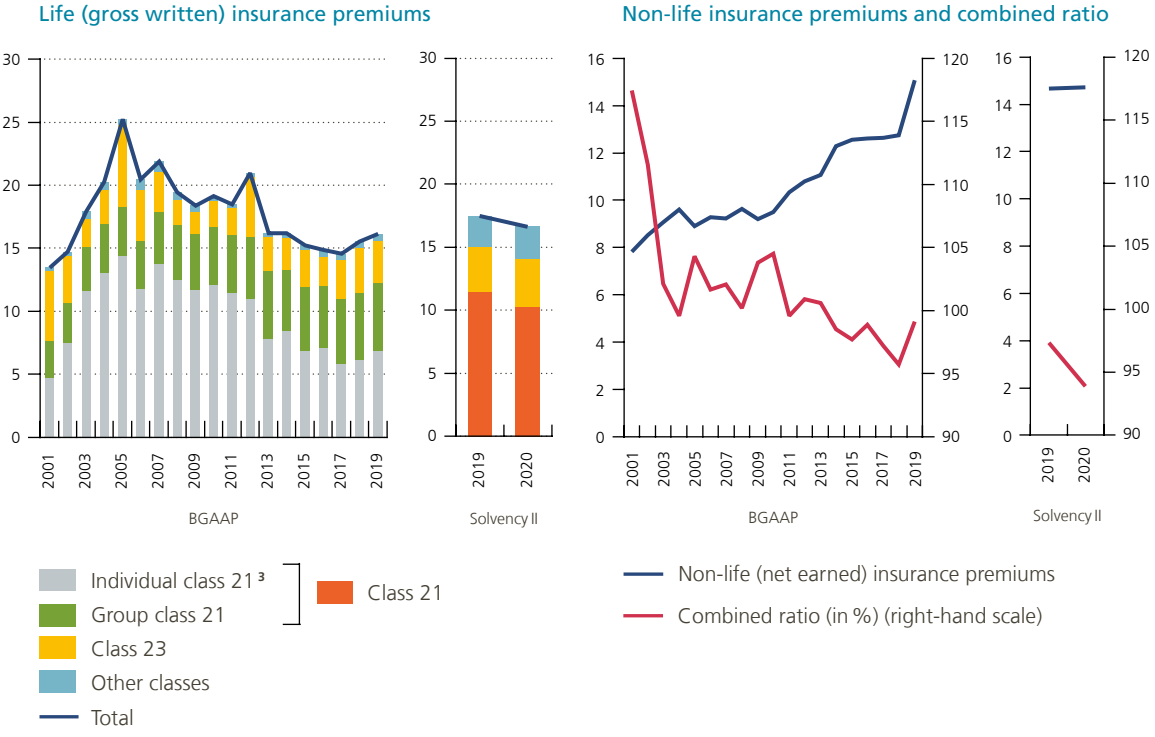


Source: NBB.

Chart I6

Premiums[1] and combined ratio[2]

(non-consolidated end-of-period data; in € billion, unless otherwise stated)



Source: NBB.

1 Life insurance gross written premiums under Solvency II are somewhat larger than under BGAAP because of the inclusion of some health insurance premiums (which are part of non-life premiums under BGAAP). Net earned premiums for non-life insurance differ between the two reporting formats for the same reason. This also applies to the combined ratio, for which the formula calculation has been adapted to the available data in Solvency II.

2 The combined ratio expresses the sum of the cost of claims plus operating expenses relative to net premium income.

3 Class 21 products are life insurance contracts with minimum guaranteed rates of return, while class 23 refers to unit-linked or index-linked contracts.

Table I7

Investment return and average guaranteed return in life insurance

(non-consolidated end-of-period data based on annual statutory accounts; in € billion, unless otherwise stated)

	2015	2016	2017	2018	2019	2020 [1]
Investment return of technical provisions covering guaranteed rate contracts (in %)	5.27	5.13	4.41	3.93	3.46	3.30
Estimated investment return of technical provisions without net impairments, net capital gains (in %)	4.24	4.11	4.11	3.67	3.02	3.07
Average guaranteed rate of return on existing contracts (in %)	2.82	2.62	2.47	2.31	2.16	1.99
■ group insurance	3.19	2.96	2.78	2.64	2.51	2.33
■ individual insurance	2.64	2.44	2.30	2.13	1.94	1.77
Yield gap	2.45	2.51	1.94	1.62	1.30	1.33
Flashing-light provision	7.6	7.4	7.5	7.5	7.4	n.
Flashing-light rate (in %)	1.96	1.37	1.00	0.74	0.49	0.33

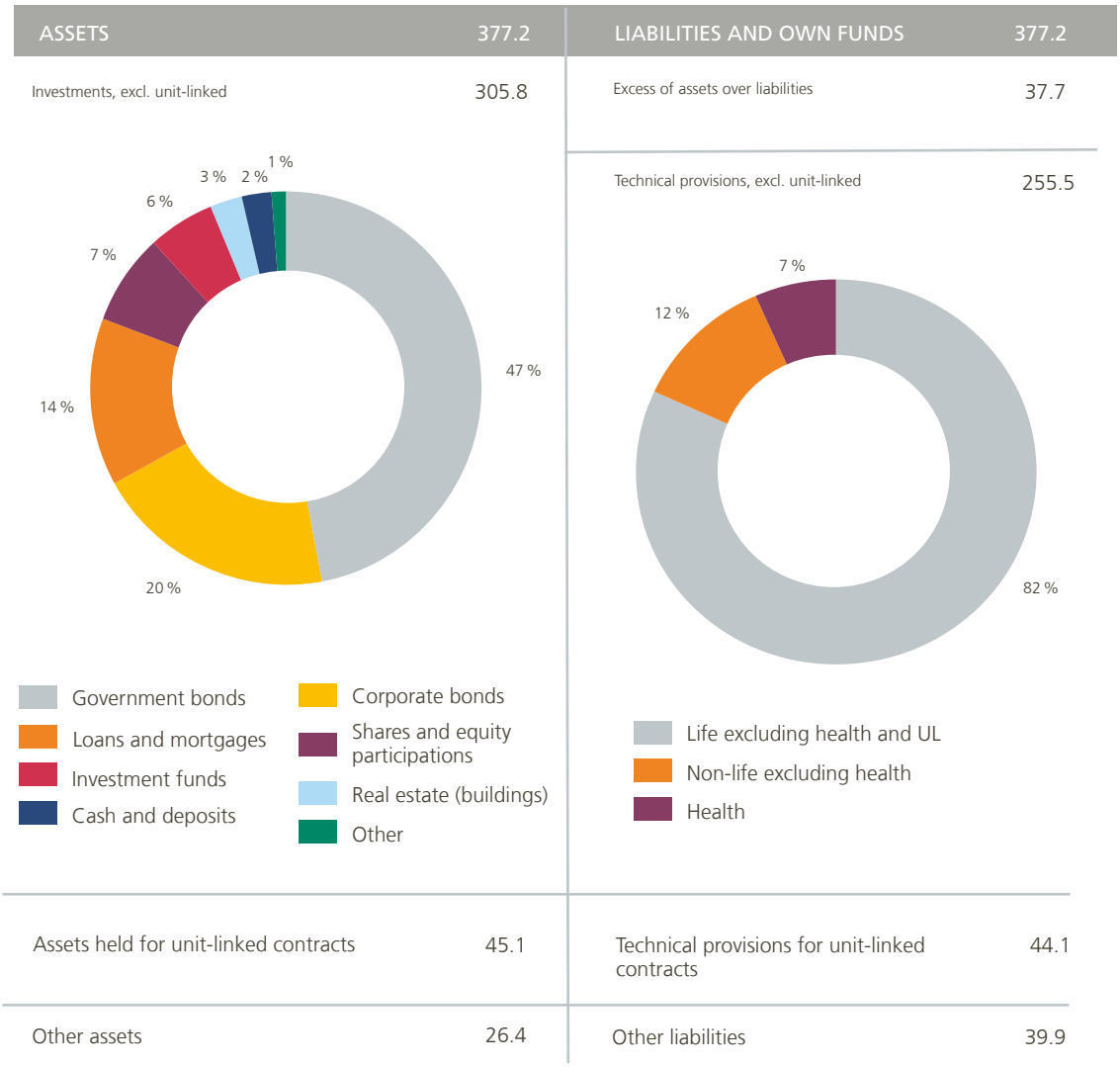
Source: NBB.

1 Provisional data.

Chart I8

Main components of the balance sheet

(non-consolidated data for the end of 2020 at market value, in € billion)



Source: NBB.

Thematic article

Data on derivatives and securities financing transactions: EMIR and SFTR

Janet Mitchell
Pablo Rovira Kaltwasser
Stijn Ferrari

Introduction

In 2009, following observation of the important role that derivatives had played in the 2007-2008 financial crisis, the G20 leaders announced their intention to fundamentally reform the regulatory framework for over-the-counter (OTC) derivatives markets. Prior to the crisis, the opacity of derivatives exposures and the associated network of interconnections between financial institutions had allowed unobserved concentrations of risk to build up in particular institutions, to the point where the default of a major market participant during the crisis created large spillover effects on other institutions through derivatives contracts. The lack of transparency in the OTC derivatives markets meant that it was difficult for supervisors and even banks to accurately gauge the impacts of a deterioration of the creditworthiness of derivatives counterparties.[1] A more recent case illustrating the potentially hidden risks associated with the opacity of derivatives exposures and interconnections between financial institutions is that of the Archegos Capital fund and its equity derivatives contracts with several large broker dealers.

The reforms proposed by the G20 leaders in 2009 were aimed at five objectives: (1) standardised derivatives should be centrally cleared; (2) standardised derivatives should be traded on exchanges or electronic platforms, where appropriate; (3) higher bank capital requirements should be imposed on non-centrally cleared derivatives; (4) minimum margin requirements should be imposed on non-centrally cleared derivatives; (5) OTC derivatives should be reported to trade repositories.[2]

Whereas the objective of strengthened bank capital requirements for derivatives has been incorporated in the Basel III international regulatory framework and in the European framework via the Capital Requirements Regulation (CRR) and the Capital Requirements Directive (CRD), the other objectives cited by the G20 leaders have been embedded in European legislation via the European Market and Infrastructure Regulation (EMIR).[3]

EMIR aims to strengthen the European Union's regulatory framework for derivative transactions by bringing more stability, transparency and efficiency to the derivatives markets. The preface to the regulation states:

1 See "Derivatives and Systemic Risk", NBB *Financial Stability Review,* 2018 and 2018 NBB Report on Derivatives for a detailed discussion of the uses of derivatives and their associated risks.
2 See FSB "Review of OTC Derivatives market reforms", June 2017.
3 Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories.

"Over-the-counter derivatives lack transparency as they are privately negotiated contracts and any information concerning them is usually only available to the contracting parties. They create a complex web of interdependence which can make it difficult to identify the nature and level of risks involved. The financial crisis has demonstrated that such characteristics increase uncertainty in times of market stress and, accordingly, pose risks to financial stability. This Regulation lays down conditions for mitigating those risks and improving the transparency of derivative contracts."

EMIR thus aims to reduce the credit, liquidity and operational risks of counterparties linked to over-the-counter transactions in derivatives. It also mandates the reporting of detailed information on derivatives transactions by European counterparties.

This article discusses the features, challenges, and opportunities associated with EMIR and the data deriving from the reporting obligation. Section 2 provides an overview of the EMIR regulation and its requirements. Section 3 highlights the mandate of the NBB in enforcing EMIR and describes the data that derivatives counterparties must report and the implications for enforcement of the reporting obligation. Section 4 uses EMIR data to present some descriptive statistics concerning the derivatives activities of Belgian banks and insurance companies. Section 5 briefly discusses another regulation that is similar to EMIR; namely, the Securities Financing Transactions Regulation (SFTR).

1. Overview of EMIR

The EMIR legislation contains three main pillars:

1. **Clearing**: Counterparties to a standard OTC derivative contract must clear the transaction through a recognised central counterparty (CCP).
2. **Reporting**: Counterparties that enter into derivatives contracts must report the details of each transaction to an EU-approved trade repository of their choice. The reporting obligation includes not only information on the transactions themselves, such as the identity of the counterparties, the notional amount, the price of the transaction, the maturity, etc., but also information on clearing, valuation, and collateralisation.
3. **Risk mitigation**: For non-CCP-cleared derivatives contracts, counterparties must apply specific risk mitigation techniques, which include daily valuation, portfolio compression, portfolio reconciliation, collateral requirements, and capital adequacy requirements.

In general, the requirements defined in EMIR apply to all European counterparties who enter into a derivative contract, regardless of whether they are financial institutions (banks, insurance firms, asset management companies, etc.) or non-financial institutions (corporates, payment institutions, etc.)[1] The clearing obligation currently applies only to standardised OTC interest rate derivatives in G4 currencies and in a few smaller currencies, as well as to standardised credit default swaps.[2]

In contrast to the clearing obligation, the EMIR reporting obligation affects all classes of derivatives; i.e. interest rate, foreign exchange, equity, credit and commodity. Moreover, the reporting obligation applies to both extra-group and intragroup derivatives transactions in all currencies and in all venues (exchange-traded derivatives or OTC).

The objective of the reporting obligation is to improve the transparency of OTC derivative markets. Counterparties must report all new derivatives transactions, as well as any changes in the contract due to events such as

1 The EMIR "refit" introduced important changes that simplify the requirements and reduce the regulatory and administrative burdens, especially for non-financial counterparties.

2 See https://www.esma.europa.eu/regulation/post-trading/otc-derivatives-and-clearing-obligation for an overview.

novation or portfolio compression during the entire duration of the contract. In addition, counterparties must report the market value of each contract daily.

The risk mitigation techniques were put in place to make sure that derivatives market participants measure, monitor and mitigate operational risk and counterparty credit risk in relation to OTC derivative transactions that are not cleared through a central clearing counterparty. In addition, the risk mitigation requirements also impose adequate capital coverage for exposures arising from non-centrally cleared OTC derivatives.

The requirements imposed by EMIR have had a significant impact on both the organisation of the derivatives market and on the counterparties themselves. Large financial institutions have devoted significant resources to fulfilling the requirements; e.g. in IT infrastructure, compliance, middle and back-offices, and collateral management. In order to eliminate disproportionate costs imposed by EMIR on smaller firms, in 2017 the European Commission published some proposed amendments to the regulation.

In 2019 EMIR was modified a final time in order to apply the principle of proportionality to small financial counterparties[1] The preface to the regulation, labelled "EMIR refit", states that the EMIR legislation should apply to financial counterparties that might impose an important systemic risk for the financial system. Financial counterparties with a volume of OTC derivatives markets that is too low to pose an important systemic risk should be exempted from the clearing obligation. These counterparties should nevertheless be required to exchange collateral to mitigate potential risk. In addition, if a position taken by a small financial counterparty exceeds a clearing threshold defined in the regulation for at least one class of OTC derivatives, the clearing obligation will apply to all of that counterparty's OTC derivatives.

In addition to the three EMIR pillars described above, EMIR also introduced a set of organisational, business conduct and prudential requirements for CCPs. The role of CCPs is described in the box below.

1 See EU Regulation 2019/834 of the European Parliament and of the Council of 20 May 2019 amending Regulation (EU) No 648/2012.

BOX 1

EMIR and CCPs

CCPs are financial market infrastructures that interpose themselves between two parties to a derivative transaction, thereby becoming a buyer to every seller and a seller to every buyer. As long as no clearing member (client) defaults, a CCP has always a "matched book"; that is, its net position, consisting of the sum of the assets and liabilities of the CCP against all its clearing members, is zero. Because CCPs clear the transactions of many counterparties simultaneously, they are able to net these transactions on a multilateral basis, which has the obvious advantage of producing smaller net exposures than in the case of bilateral netting. As a result, CCPs simplify the previously complex and opaque web of derivatives exposures.

Contrary to other financial service providers, such as banks and prime brokers, CCPs are single-purpose entities; i.e., they only provide clearing services to their clients and nothing else. In addition, CCPs

standardise risks, as they impose a common collateralisation framework. As a result, CCPs are widely considered to reduce counterparty risk.

CCPs' activities can nevertheless pose a number of risks to financial stability. First, they stand at the centre of the financial system, interconnecting their clearing members on a global scale. That is, CCPs concentrate the risk of millions of transactions. As a result, CCPs are by definition systemically important. Second, the volume of transactions cleared by CCPs has increased dramatically in recent years and is expected to increase even further in the future. This increase is not only explained by the introduction of central clearing obligations across different asset classes in several jurisdictions but also by an increase of voluntary clearing among market participants.[1] A third potential risk arises from the high concentration within the CCP industry of a very small number of CCPs clearing most derivatives transactions in the EU. This implies that the failure of a single CCP could have an immediate and severe impact on financial markets.

Because CCPs are critical to the functioning of the financial system, their ability to manage the ensuing risks is crucial. Consequently, EMIR sets out stringent risk management requirements for CCPs and requires the recognition and ongoing supervision of CCPs.

Contrary to banks, insurers and other financial entities, CCPs operate mainly following the "defaulter-pays" model. That is, the CCP's counterparty risk is covered via collateralisation and, only to a much lesser extent, via capital reserves. Whenever a clearing member defaults, the matched book of a CCP is lost. To cope with such an event, the CCP requires collateralisation of its exposures ex-ante (i.e., initial margin) vis-à-vis the clearing members. These initial margins are due by each clearing member as coverage for the trades it clears. In the event that the collateral pledged by the defaulting member is insufficient to re-establish the matched-book, the CCP will make recourse to the default fund contributions of the defaulting member. Should these contributions still be insufficient, the CCP will have to contribute with a part of its own capital to rebalance its books. This is the CCP's so-called "skin in the game". If funds are still necessary following the CCP's contribution, the default fund contributions of the surviving clearing members will be used.

1 It should be noted that the Basel 3 framework incentivises central clearing by imposing lower capital requirements for centrally-cleared than for non-centrally-cleared derivatives.

2. EMIR enforcement and data

This section discusses the NBB mandate for enforcement of EMIR, the nature of the data that must be reported by derivatives counterparties, and some challenges and opportunities associated with the data.

The NBB and the FSMA are the Belgian national competent authorities bearing the legal responsibility for ensuring that the entities under their respective supervision comply with the requirements set forth in EMIR. The NBB is thus responsible for ensuring that the financial institutions under its supervision fulfill the reporting requirements and that these institutions have undertaken central clearing for all derivatives contracts for which

clearing is required. The NBB must also verify that the appropriate risk mitigation techniques have been applied for non-centrally cleared derivatives.

2.1 Reporting requirements

The obligation to ensure compliance with the EMIR reporting and clearing requirements brings with it certain challenges; in particular, the necessity of working with very large data sets resulting from detailed information for all existing derivatives transactions for all of the institutions under NBB supervision. Such large, granular datasets present special challenges in terms of the IT infrastructure needed to collect, store, and manage the data. IT infrastructures developed for traditional supervisory data sets, for which the volumes are much smaller, are often not well adapted for data sets of the size of the EMIR data. To provide an idea, the NBB must process approximately 10 million transactions every day. Therefore, satisfying the EMIR enforcement obligation requires many regulatory authorities to undertake extensive IT infrastructure upgrades.[1]

The table in the Annex provides a partial list of the items that derivatives counterparties must report for each contract. Required items include information relating to the identity of the counterparties, the type of derivative, the currency of the contract, settlement and maturity dates, collateral posted and received (initial and variation margin), clearing status, nature of any Master Agreement, notional and market values of the contract, payment flows, interest rates, etc. Not only must the information be reported at the inception of the contract, but a new report must be submitted by each counterparty when any of the information is modified or updated, and market values must be submitted daily.

2.2 Supervision of compliance with reporting requirements and data quality

In a recent peer review, the European Securities Market Authority (ESMA) published a set of principles that competent authorities should apply to successfully monitor the quality of the EMIR data.[2] These principles include the application of regular and thorough quality controls, with the use of appropriate tools, as well as proactive investigation of any quality issues that are detected. Given the size of EMIR data sets, these principles suggest the need for automation of quality checks and regular contact with reporting entities to communicate and resolve any observed quality issues.

One specificity of the data supervision process pertains to the fact that counterparties to derivatives transactions do not report the data directly to national authorities but rather to one of the trade repositories (TRs) approved and supervised by the ESMA. The data from each trade repository are brought by ESMA onto a single platform, called TRACE, to which national authorities may purchase access in order to download the data. The NBB collects the EMIR data daily from this TRACE platform. These data include all derivatives transactions involving a Belgian counterparty, as well as all transactions by any EU counterparty but for which the underlying reference asset is a Belgian asset (e.g. Belgian sovereign debt).

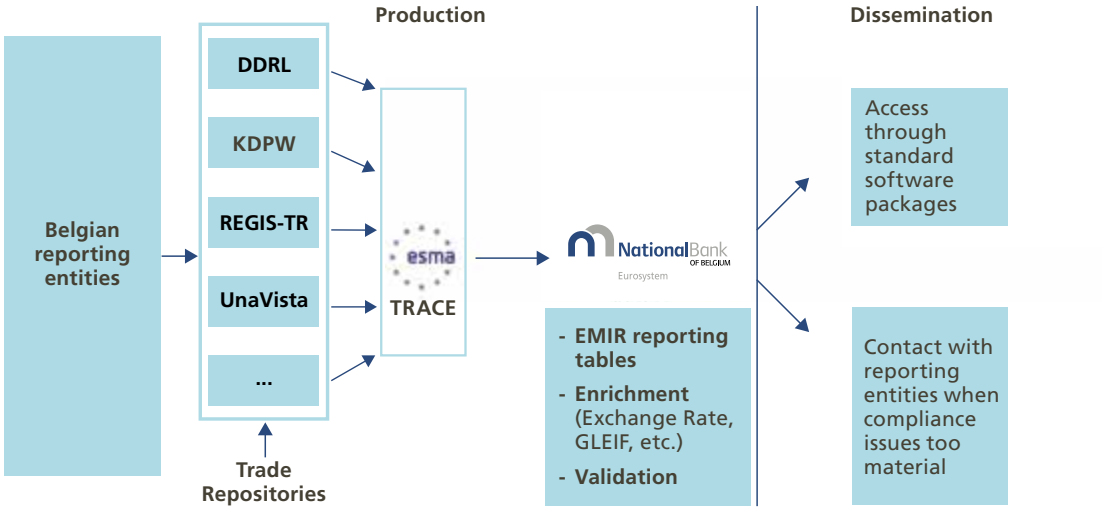
1 Large, granular data sets are becoming the new norm at a fast pace. For a discussion of existing granular data sets see "Transaction-level data sets and monitoring of systemic risk: an illustration with Securities Holding Statistics," *NBB Financial Stability Review*, 2019.

2 See ESMA, "Peer review into supervisory actions aiming at enhancing the quality of data reported under EMIR", 2019.

Chart 1 illustrates the various steps relating to data collection, supervision, and risk analysis.

Chart 1

EMIR data flow chart



Once the data have been transferred from the TRACE platform to the NBB, they are "enriched" using LEI information for counterparties and including exchange rate information, which allows conversion into euros of the values of contracts denominated in non-euro currencies. The data are then stored in three types of tables: 1) stock of all outstanding transactions; 2) flow of new transactions and modifications to the stock; and 3) process and compliance flags.

Flags are included at different points in the data "production chain", in order to able to trace potential errors to their source. Two types of flags are used: data production process flags and compliance flags. The compliance flags are further divided into three classes: (1) reporting; (2) central clearing; and (3) risk mitigation techniques.

Compliance flags are used to check whether the information has been reported according to the specifications provided in the regulation. These flags also include logical checks on the data content in order to detect potential reporting errors for items such as the identity of the counterparties, relevant contract dates, contract types, notional amounts, and market values. In future developments of the system, machine-learning techniques may be applied to spot potential anomalies based on more complex relationships between multiple items in the data.

The flags on central clearing check whether contracts whose characteristics (contract type, currency, date and maturity of the contract) would require them to be centrally cleared have effectively been cleared. The compliance flags on risk mitigation indicate whether contracts that are not centrally cleared are for instance marked to market daily and whether collateral (initial margin and/or variation margin) is being exchanged between the counterparties to these contracts.

The flagged information is summarised, weighted and aggregated into a score for each supervised institution, which is then used to determine the materiality of compliance problems for each institution. A high score, based on a high number of flags or on material problems can lead the NBB to take contact with the reporting institution in order to request information.

One of the challenges of this process arises from the fact that errors in the data received by the NBB can derive from two sources: the reporting entities or the trade repositories to which entities report. Identification of errors in the data thus requires determining the source of the errors. If contact with the reporting entity reveals that that the data have been correctly reported to the trade repository, then a procedure will need to be put in place to inform the relevant trade repository as well as ESMA, which supervises the trade repositories, of the issue and to ensure that the errors are corrected.

2.3 Microprudential and macroprudential risk analysis with EMIR data

As noted above, one of the key motivations underlying the EMIR reporting requirement was to provide supervisors with the data necessary to identify and evaluate risks associated with derivatives contracts and any potential threats they might pose to financial stability. In this regard the EMIR data represent an important addition to the analytical toolkit of the NBB with respect to its microprudential and macroprudential mandates. The EMIR data can be used to detect risks for individual financial institutions linked to concentrations of exposures to particular counterparties or via particular types of derivatives. The data also allow assessment of the impacts of potential shocks, such as an interest rate shock, on an institution's balance sheet through changes in the market values of derivatives or in the flow of net interest income from derivatives. Finally, the data can help to gauge the impact of unexpected margin calls.

From a macroprudential perspective, the EMIR data permit identification of emerging risks associated with heavy reliance by institutions on certain types of derivatives (e.g. interest rate, foreign exchange). The data can also provide an idea of the extent of interconnectedness of financial institutions through derivatives exposures; e.g., domestic versus foreign banks, banks and other financial institutions, including shadow banks and CCPs. (See the box below on the case of Archegos Capital and the potential uses of granular derivatives data.) Given the systemic importance of CCPs, it is also important to assess the proportion of banks' derivatives contracts that are centrally cleared and whether concentrations of exposures to particular CCPs exist. Finally, the EMIR data allow real-time monitoring of trends in derivatives transactions during stress periods, including the types of new transactions concluded and changes in market values of existing contracts.

The NBB is currently working on the automation of several parts of the supervision process that will make use of interactive dashboards allowing supervisors and NBB analysts to examine key data fields and to identify areas of poor data quality that are not detected by the automatic flags. The dashboards also allow visualisation of the data and comparisons of various items for the purposes of microprudential and macroprudential risk analyses.

One caveat to note with respect to the EMIR data, however, is that the intended use of a derivatives contract is not reported. This means that it is not possible to determine which derivatives are used for hedging and which are not. Hence, analyses relating to the types and amounts of hedging undertaken with derivatives are not possible with the EMIR data.

BOX 2

The Archegos Capital fund failure, equity derivatives, and granular derivatives data

In March of this year six global investment banks announced large losses, some in the billions of euros, associated with derivatives exposures to the family fund, Archegos Capital, a name little known to the public. Archegos, founded by a former hedge fund trader who had previously pleaded guilty to insider trading, had amassed billions of dollars of leveraged exposures to the banks through equity total return swap derivatives.

Total return swaps function as follows. The buyer of the swap pays a regular fixed or floating-rate fee to the seller, in return for a payment linked to the total return of an underlying asset, such as an equity, a bond, or an equity or bond index. The total return includes any income from the underlying asset as well as any capital gains. For an equity total return swap, the total return thus includes both the dividends and any changes in the value of the equity. This implies that if the value of the equity increases, the seller must make an additional payment to the buyer. On the other hand, if the value of the equity falls, the buyer must make a payment to the seller, above and beyond the regular fee.

Total return swaps allow the buyer to take on the exposure derived from owning the underlying asset without actually having to purchase the asset. Equity total return swaps allow the buyer, often a hedge fund, to take on large equity exposures in an opaque manner, without having to abide by the disclosure requirements that would apply if the fund were to own the equity. Total return swaps also allow the buyer to take on large exposures with only a minimum cash outlay. The leverage associated with the buyer's exposure then creates a risk for the seller. Indeed, a large margin call on Archegos' equity total return swaps due to a decline in the value of an underlying stock caused a default of the fund and a fire sale of the underlying equities by the global banks that were counterparties to the contracts.

Whereas the systemic fallout of the Archegos failure appears to be quite limited, the case nevertheless raises questions as to whether there are many other funds with similar, large total return swap exposures to banks and whether failures of those funds could have a potential systemic impact.

It would be impossible for authorities to determine the answer to these questions in the absence of detailed derivatives reporting requirements, such as those prescribed by EMIR. However, with the granular derivatives data, authorities can now address these types of questions. In particular, the EMIR data allow authorities to examine the identities of the counterparties, the types and amounts of contracts concluded, and the collateral exchanged. It would be possible not only to determine the exposure of a given bank to a given fund but also the total exposures of all banks in the banking system to that fund. It would also be possible to calculate the overall total return swap (or other derivative) exposures by banks in the system to a group of funds, thereby obtaining an idea of the potential systemic risk associated with the exposures.

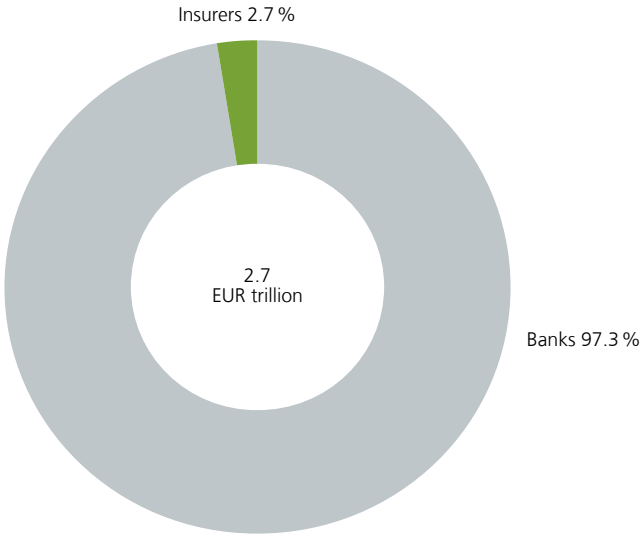
Granular derivatives reporting requirements were put in place to help authorities identify and monitor the risks associated with potential (previously hidden) concentrations of derivatives exposures and with the related interconnectedness among financial institutions. Given the sheer volume of derivatives data, it would be unrealistic to assume that authorities could or should have anticipated the Archegos case. At the same time, now that the risk associated with Archegos has materialised, the data can be useful for assessing the overall importance of this type of risk for individual banks or the financial sector.

3. Descriptive statistics

This section uses EMIR data to present some descriptive statistics on the derivatives exposures of Belgian banks and insurance companies. Chart 1 shows that Belgian banks account for significantly higher notional derivatives exposures than insurance companies. Two main factors explain this pattern. On the one hand, banks use derivatives to hedge the duration gaps in their (loan) portfolios, which is an intrinsic characteristic of the banking business. On the other hand, banks often supply financial services to their clients, often non-financial corporations wishing to undertake hedging, by serving as derivatives counterparties to the clients. As can be seen in Chart 1, at end-November 2020 Belgian banks held 97.3 % of the total derivatives notional value outstanding, whereas insurance companies held the remaining 2.7 %.

Chart 2

Total derivatives notional by Belgian banks and insurers



Source : NBB.

The box below describes the several common types of derivatives.

BOX 3

Common types of derivatives [1]

The following table describes the payment flows associated with different types of derivatives.

Type	Definition	Cost at inception	Value change of the contract
Swaps	An agreement to exchange cash flows between two parties at specified intervals.	Zero or very close to zero cost at inception. An initial margin can be contractually foreseen.	Changes in price or rates affects the fair value of the swap.
Forward	An obligation to exchange a specified amount of a security or commodity at a specified fixed price, with delivery at a specific point in time.	Zero. Does not require an initial cash outlay, although in some cases an initial margin can be contractually foreseen.	Measured as the difference between the forward rate at the signing of the contract and the spot rate on the date of contract maturity.
Future	Similar to a forward but traded on an organised exchange.	Initial deposit of funds is required to create a margin account.	Measured as the difference between the forward rate at the signing of the contract and the spot rate.
Option	Represents a right rather than an obligation to buy or sell.	Non-refundable option premium.	Based on: intrinsic value, time value, interest rate, and volatility.
Swaptions	OTC option on a swap.		

Source: NBB.

Some of the most commonly traded derivatives by Belgian banks and insurance companies are described below.

Interest rate swap (IRS): An agreement between two counterparties to exchange interest rate cash flows at specified intervals over a given time period. Interest rate swaps usually involve the exchange of a fixed interest rate payment based on a particular notional amount for a floating rate payment on that same notional amount, or vice versa.

Interest forward rate agreement: An agreement between two counterparties to exchange a fixed interest rate for a variable interest rate at a pre-specified date in the future on a given notional amount.

Interest rate option: An option in which the underlying is an interest rate. The option gives the buyer the right to exchange a fixed interest rate for a variable rate (or vice versa) on a given notional amount at any point prior to the expiration date of the contract.

1 More detail on the risks that are hedged with different types of derivatives can be found in "Derivatives and Systemic Risk", NBB FSR 2018.

Currency swaps: In a currency swap one counterparty simultaneously lends one currency to the other counterparty and borrows another currency from the same counterparty, after which this transaction will be reversed at a future date specified in the contract. The amounts of each currency exchanged at the start of the contract are governed by the spot exchange rate. The amounts of currency that will be exchanged on the future date are determined by the forward exchange rate prevailing at the time of signing of the contract.

Currency option: A contract that gives the buyer the option to purchase or sell a currency at a pre-specified price at any point prior to the expiration date of the contract.

Currency forward: A contract that specifies the exchange rate for the purchase or sale of a given currency on a future date.

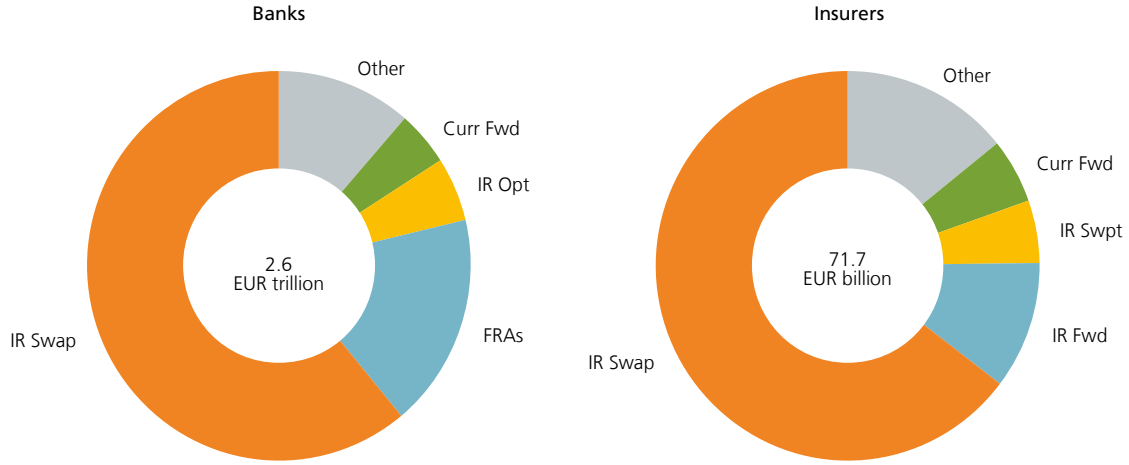
Equity derivative: A contract whose payment is a function of the value of one or more underlying equity securities. The most common forms of equity derivative are equity options and futures.

Credit derivatives: The most typical credit derivative is a credit default swap (CDS), whereby one counterparty (the credit "protection buyer") makes an upfront or regular payment to the other counterparty (the credit "protection seller"), in exchange for a payment if a "credit event", which is defined in the contract, occurs with respect to the underlying asset on which the CDS is based. Typical credit events include bankruptcy of an entity, failure to pay, debt restructuring, or changes in a credit spread or rating. A CDS can thus resemble an insurance contract, with the protection buyer paying a premium to the protection seller, who makes a payment to the protection buyer only if a credit event occurs.

Chart 3 reports the most common derivatives used by Belgian banks and insurance companies. It can be seen from this chart that interest rate derivatives are the type most widely used by Belgian banks and insurers. Interest rate swaps represent the largest share (60.9 % for banks and 64.1 % for insurance companies), followed by Forward rate Agreements (17.9 %) and Interest rate options (5.3 %) in the case of banks, and by Interest rate forwards (10.5 %) and Interest rate swaptions (5.1 %) in the case of insurance companies.

Chart 3

Derivatives types of Belgian banks and insurance companies.



Source: NBB.

Note: The meaning of the labels in the figure are as follows: FRAs: forward rate agreements, IR Opts: interest rate options, Curr Fwd: currency forwards, IR Fwd: interest rate forwards and IR Swpt: interest rate swaptions.

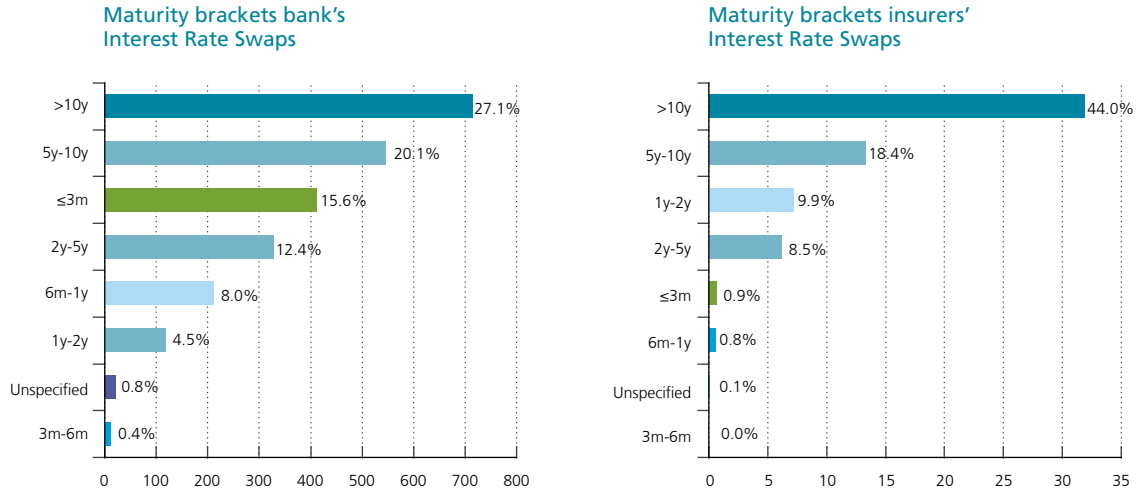
Since interest rate derivatives represent the most important type of derivatives traded by banks and insurance companies in Belgium, the remaining figures presented in this section focus on this derivative type only.

Most interest rate derivatives (IRDs) traded by Belgian banks and insurers tend to have a relatively long maturity. As can be seen from Chart 4, approximately 48 % of the banks' IRDs have a maturity longer than 5 years. For insurance companies this figure is even higher, at approximately 62 %. IRDs with a maturity between 1 year and 5 years represent approximately 16 % of the banks' IRDs portfolios and 18 % of the insurers' portfolios. Only 15 % of the banks' IRDs have a maturity of three months or less.

Chart 4

Maturity profile of the derivatives portfolio of Belgian banks and insurance companies

(notional value; in € billion and in % of total notional value)



Source: NBB.

One of the main requirements of EMIR is the obligation to clear the most standardised, and therefore liquid, IRDs and credit derivatives with a central clearing counterparty. Chart 5 reports the shares of outstanding IRDs that have been centrally cleared by banks and insurance companies in Belgium. As of end-November 2020 approximately 60 % of the outstanding IRDs of insurance companies had been centrally cleared whereas this was the case for only 30 % of banks' outstanding IRDs.

This difference is to a large extent explained by characteristics that are intrinsic to the Belgian financial landscape. Two of the largest banks in Belgium are subsidiaries of international banking groups, and other Belgian banks have foreign subsidiaries. A common derivatives market practice in banking groups is to apply the principle of *one gate to the world*. That is, banking groups typically apply a holistic approach for the execution of their derivatives trades in financial markets: one entity (or a few entities) within a group executes all (or most) derivatives trades with all other group entities (intragroup transactions), and that entity then mirrors and executes these trades with the rest of the world (extra-group transactions). As such, it is not uncommon to see relatively large volumes of intragroup derivatives transactions within banking groups.

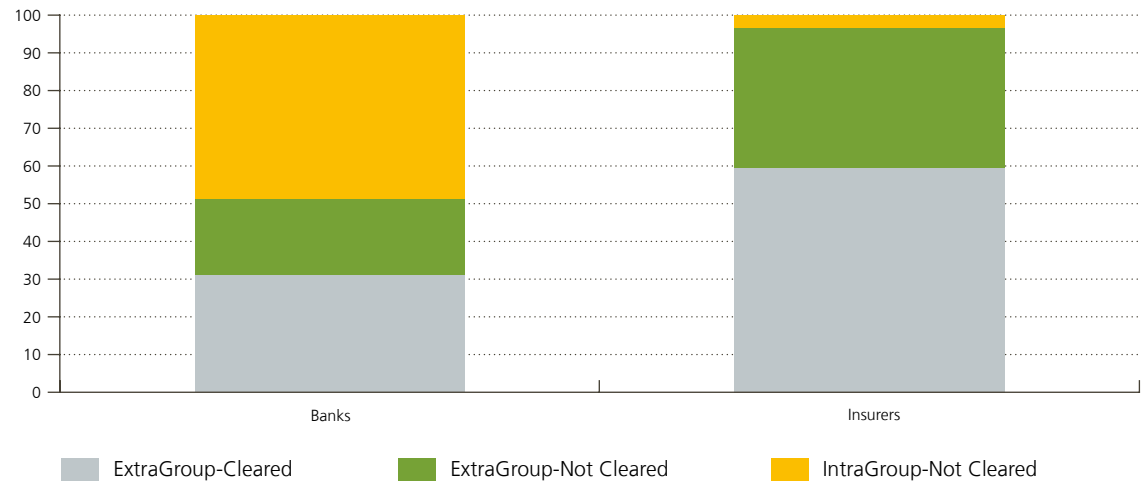
Under EMIR, intragroup transactions can be exempted from the central clearing obligation following approval by the competent authority of a petition by the bank for a waiver of the clearing obligation for intragroup transactions. The NBB has granted clearing exemptions for intragroup transactions to a number of Belgian banks in the past. As a result, these transactions are no longer subject to the clearing obligation. Chart 5 indeed shows that approximately 50 % of all transactions of Belgian banks are intragroup and that these transactions are not centrally cleared.

Another potential contributing factor to the relatively low degree of central clearing by Belgian banks is that not all IRD classes are subject to the EMIR clearing obligation. In particular, interest rate options, futures or swaptions are not subject to this EMIR requirement. Extra-group transactions that are non-cleared represent a relatively small fraction for banks and insurance companies (15 % and 27 % respectively). Finally, some IRD contracts on Belgian banks' and insurers' books were concluded prior to the year in which the EMIR clearing obligation became effective. This further increases the proportions of noncleared outstanding contracts.

Chart 5

Share of central clearing by Belgian banks and insurance companies

(in %)



Source: NBB.

4. Securities financing transactions regulation (SFTR)

Securities financing transactions (SFTs) refer to transactions involving the temporary exchange of securities for cash or vice versa; e.g., repurchase agreements (repos) and securities lending transactions. With such transactions the ownership of the securities and cash often switches between the counterparties for the duration of the transaction, after which the ownership reverts back to its original status, once the exchange of securities and cash is reversed.

In 2013 the Financial Stability Board (FSB) published a report containing a proposed policy framework for addressing shadow banking risks linked to securities lending and repo transactions. The report cited a number of potential financial stability risks associated with these markets. Among the risks, securities lending and repo transactions can lead to "bank-like" activities, which create liquidity or maturity transformation but which are subject to the risk of becoming illiquid or suffering sudden decreases in value. Such transactions can jeopardise financial stability by contributing to a build-up of excessive leverage and maturity transformation by institutions that are not subject to prudential regulation. In addition, like derivatives, securities financing transactions may be subject to large, unexpected margin calls; therefore, knowledge of financial institutions' holdings is important for appropriate supervision. Finally, as with derivatives, SFTs are opaque.

The European Securities Financing Transactions Regulation (SFTR), adopted in 2015, is Europe's response to the policy framework adopted by the Financial Stability Board.[1] The SFTR has three main elements: i) a requirement to report every security financing transaction to a trade repository, ii) transparency requirements towards investors and iii) transparency requirements regarding the reuse of collateral.

Several elements of the SFTR are modelled on EMIR. Information on all securities lending and repo transactions except those concluded with central banks must be reported on a daily basis to an EU-approved trade repository.

1 EU Securities Financing Transactions Regulation (SFTR), 2015/2365.

The information to be reported for each transaction also resembles that for the EMIR reporting. Detailed information must be provided regarding the counterparties, the nature and the terms of the transaction, collateral (initial and variation margin), whether collateral is available for reuse or has been reused, and the haircuts applied.

With respect to enforcement of the SFTR, as with EMIR, the NBB is the Belgian national competent authority with the legal responsibility to ensure that the entities under its supervision comply with the SFTR requirements.

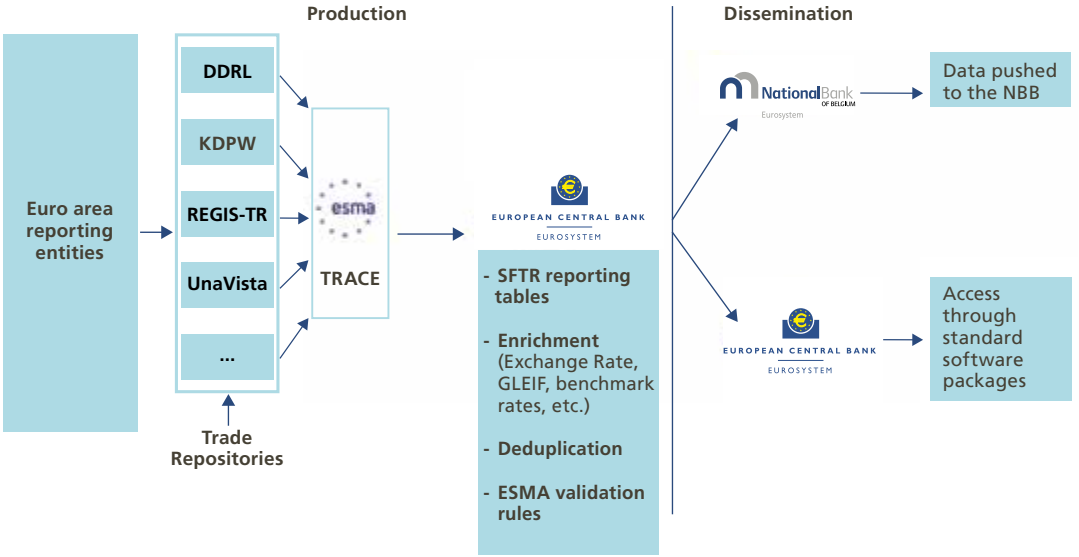
The IT challenges facing authorities in ensuring compliance with SFTR reporting obligations closely resemble those associated with EMIR reporting, with one key exception. Namely, whereas EMIR does not allow the sharing of data among supervisors in differing jurisdictions, the SFTR does allow for national authorities to receive data on all transactions denominated in their currency of issuance. This implies that supervisors in the eurozone can have access to all SFTR data for transaction denominated in euro.

This provision of the SFTR has permitted eurozone supervisors to exploit economies of scale with respect to the collection and management of SFTR data. A joint project has been developed with the ECB, ESRB and seven National Central Banks (NCBs), including the NBB, to build the IT infrastructure necessary to collect, enrich and disseminate the SFTR data. This joint project, called Securities Financing Transactions Data Store (SFTDS), will significantly reduce the cost to the NBB of fulfilling the mandate of supervising compliance with SFTR reporting and with the requirements on the reuse of collateral.

The chart below illustrates the steps in the SFTDS data "production chain". As can be seen from the chart, the data will be transferred daily from the ESMA TRACE platform to the ECB, where several data manipulation and enrichment tasks will be performed. The SFTDS project offers two ways to access the data. The first channel is through a so-called remote desktop that allows connecting to the ECB's IT infrastructure where the data is located and available for analysis. The second option is through transferal of the data that is stored at the ECB to the NCBs that wish to store the data using their own IT infrastructure. The NBB has planned to use both channels. The main purpose of using the second channel is to perform further manipulations and transformations to the data that are out of the scope of the SFTDS project but that will facilitate the task of determining that entities under NBB supervision abide by the SFTR requirements.

Chart 6

SFTR data flow chart



Like the EMIR data, the SFT data allow assessment of a range of potential microprudential and macroprudential risks that would not otherwise be possible to monitor. First, the SFT data can be used to detect procyclicality in the leverage of financial institutions, given that in good times asset valuations tend to be higher and haircuts lower, thereby increasing the availability of funding through SFTs. In addition, as SFTs often involve non-bank financial institutions, the SFT data allow greater supervisory monitoring of the interconnections between banks and non-banks and the development of the shadow banking system. A related issue concerns the fact that short-term SFTs are often used as a means of financing assets with longer maturities. The SFT data can thus help to provide an assessment of the extent of maturity transformation that is occurring both outside as well as inside the banking system.

Annex

Subset of items to be reported for each derivative transaction

Item reported	Type of information	Item report	Type of information
Reporting Counterparty ID Type of ID of the other Counterparty ID of the other Counterparty Country of the other Counterparty Corporate sector of the reporting counterparty Nature of the reporting counterparty Broker ID Report submitting entity ID Clearing member ID Type of ID of the Beneficiary Beneficiary ID Counterparty side Value of contract Currency of the value Valuation type Collateralisation Collateral portfolio Initial margin posted Currency of the initial margin posted Variation margin posted Currency of the variation margins posted Initial margin received Currency of the initial margin received Variation margin received Currency of the variation margins received Excess collateral posted Currency of the excess collateral posted Excess collateral received Currency of the excess collateral received	Parties to the contract	Venue of execution Compression Price / rate Notional Effective date Maturity date Termination date Settlement date Master Agreement type Master Agreement version	Transaction details
		Clearing obligation Cleared CCP Intragroup	Clearing
		Fixed rate of leg 1 Fixed rate of leg 2 Fixed rate payment frequency leg 1 – time period Fixed rate payment frequency leg 2 – time period Floating rate payment frequency leg 1 – time period Floating rate payment frequency leg 2 – time period Floating rate reset frequency leg 1 – time period Floating rate reset frequency leg 2 – time period Floating rate of leg 1 Floating rate reference period leg 1 – time period Floating rate of leg 2 Floating rate reference period leg 2 – time period	Interest Rate contracts
		Delivery currency 2 Exchange rate 1 Forward exchange rate	Foreign Exchange contracts
Contract type Asset class Notional currency 1 Notional currency 2 Deliverable currency	Contract information	Option type Option exercise style Strike price (cap/floor rate) Maturity date of the underlying	Options
		Reference entity Frequency of payment	Credit derivatives

Source: NBB.

Statistical annex

List of tables

Tables relating to Belgian credit institutions

Tables relating to Belgian insurance companies

Table 1

Number of Belgian credit institutions

	2014	2015	2016	2017	2018	2019	2020
Credit institutions governed by Belgian law with Belgian majority shareholding	15	17	15	14	14	14	15
Credit institutions governed by Belgian law with foreign majority shareholding	22	20	19	19	18	17	16
EU Member States	17	13	12	12	11	9	8
Other States	5	7	7	7	7	8	8
Belgian branches of foreign credit institutions	66	62	56	54	55	54	51
EU Member States	56	52	48	46	47	48	45
Other States	10	10	8	8	8	6	6
Total	103	99	90	87	87	85	82

Source: NBB.

Table 2

Key figures

(data on consolidated basis)

	2013	2014	2015	2016	2017	2018	2019	2020
A. Large banking groups								
Balance sheet total (in € billion)	774.7	815.6	802.7	849.7	839.6	847.0	888.2	959.3
Customers' holdings (in € billion)	516.5	544.0	559.2	575.7	595.3	598.2	623.3	654.0
Loans and advances to customers (in € billion)	444.7	463.1	476.1	485.9	506.3	531.4	555.7	551.6
Risk asset ratio (in %)	18.5	16.9	17.8	17.5	17.8	17.7	17.6	19.2
Net after tax results (in € billion)	2.6	3.9	5.2	4.8	5.2	5.3	5.6	3.5
Return on average assets (in %)	0.3	0.5	0.6	0.6	0.6	0.6	0.6	0.4
Return on average equity (in %)	5.6	7.8	10.3	9.4	9.4	9.2	9.6	5.9
Cost-income ratio (in %)	60.0	60.9	58.3	56.5	56.9	59.9	57.7	60.1
B. Total of Belgian credit institutions								
Balance sheet total (in € billion)	960.6	996.3	970.3	1 021.9	993.8	993.2	1 047.8	1 132.0
Customers' holdings (in € billion)	622.1	659.1	676.0	686.6	708.5	717.5	751.8	796.2
Loans and advances to customers (in € billion)	518.1	538.6	547.2	565.8	590.2	618.5	648.9	647.7
Risk asset ratio (in %)	18.7	17.6	18.7	18.8	19.0	18.8	18.8	20.3
Net after tax results (in € billion)	3.3	4.5	6.1	5.7	5.9	5.6	6.1	4.3
Return on average assets (in %)	0.3	0.5	0.6	0.6	0.6	0.5	0.6	0.4
Return on average equity (in %)	5.9	7.7	10.1	9.1	8.9	8.0	8.7	5.9
Cost-income ratio (in %)	60.8	61.2	58.6	58.4	58.2	61.2	59.5	61.2

Source: NBB.

Table 3

Number of Belgian insurance companies

	2013	2014	2015	2016	2017	2018	2019	2020
A. By the location of their registered office								
Belgium [1]	84	81	76	73	68	69	68	66
European Economic Area [2]	46	47	43	45	46	46	45	37
Rest of the world [3]	0	0	0	0	0	0	0	0
Total	**130**	**128**	**119**	**118**	**114**	**115**	**113**	**103**
Free service provision [4]	933	950	970	999	917	1 095	1 118	1 123
B. By specialisation [5]								
Life insurance	23	23	21	22	20	16	16	14
Non-life insurance	81	79	72	70	67	72	71	64
Life and non-life insurance	24	24	24	24	25	24	24	23
Reinsurance companies	2	2	2	2	2	3	2	2
Total	**130**	**128**	**119**	**118**	**114**	**115**	**113**	**103**

Source: NBB.

1 Companies with their registered office in Belgium comprise the Belgian subsidiaries of foreign companies.

2 Belgian branches of companies with their registered office in another E.E.A. country.

3 Belgian branches of companies with their registered office outside the E.E.A.

4 Provision of insurance services without an establishment in Belgium.

5 Including the Belgian branches of foreign insurance companies.

Table 4

Main components of insurance companies' assets

(data based on annual statutory accounts, in € billion)

	2013	2014	2015	2016	2017	2018 [1]	2019 [1]	2020 [2]
Investments	249.6	258.3	259.7	261.4	263.9	272.8	290.6	289.9
All activities with the exception of class 23	223.5	229.6	229.2	229.6	228.2	236.8	246.1	244.8
Shares	11.6	12.6	13.3	13.5	14.1	14.3	15.5	15.6
Debt securities	171.7	173.8	171.1	171.4	169.2	168.1	174.7	171.4
Land and buildings	3.2	3.1	3.0	2.9	2.8	2.8	2.7	2.6
Mortgage loans	10.1	10.4	10.8	11.7	12.7	13.6	16.7	17.5
Investments in affiliated undertakings	16.6	18.3	18.6	17.2	17.6	25.7	22.4	22.2
Others	10.2	11.3	12.5	13.0	11.8	12.3	14.2	15.6
Class 23	26.2	28.7	30.4	31.8	35.8	36.0	44.6	45.0
Shares	14.7	16.3	18.5	19.9	23.6	23.6	32.0	34.0
Debt securities	10.7	11.6	10.9	10.9	11.1	11.5	11.5	10.4
Others	0.7	0.9	1.0	1.0	1.0	0.9	1.0	0.7
Reinsured part of technical provisions	6.1	6.9	9.4	7.2	6.3	6.1	9.7	9.2
Claims and other assets	15.0	15.6	17.1	16.3	14.1	14.6	18.9	16.1
Total	270.7	280.8	286.1	284.9	284.4	293.5	319.3	315.1

Source: NBB.

1 Large changes in 2018 and 2019 are mainly attributable to the inclusion of new companies in the reporting scope.

2 Provisional data.

Table 5

Main components of insurance companies' liabilities

(data based on annual statutory accounts, in € billion)

	2013	2014	2015	2016	2017	2018 [1]	2019 [1]	2020 [2]
Own funds	13.7	14.9	14.4	13.5	13.0	19.5	22.4	22.3
Technical provisions	231.6	240.1	242.6	243.4	245.1	243.7	262.3	256.2
Life insurance (with the exception of class 23)	172.6	175.4	175.3	173.5	171.9	170.6	172.2	166.6
Class 23	26.2	28.7	30.5	31.8	35.8	36.0	44.6	45.1
Non-life insurance	25.8	28.1	28.5	29.4	28.8	28.5	34.0	34.4
Others	7.0	7.9	8.3	8.8	8.6	8.6	11.4	10.2
Reinsurance companies' deposits	4.3	3.9	6.4	4.2	3.3	3.5	3.9	4.0
Creditors' claims	18.6	19.0	20.3	20.3	20.1	22.7	26.3	28.2
Other liabilities	2.5	2.9	2.6	3.5	2.9	4.2	4.4	4.4
Total	270.7	280.8	286.1	284.9	284.4	293.6	319.3	315.1

Source: NBB.

1 Large changes in 2018 and 2019 are mainly attributable to the inclusion of new companies in the reporting scope.

2 Provisional data.

Table 6

Components of the income statement of insurance companies

(data based on annual statutory accounts; in € billion, unless otherwise stated)

		2013	2014	2015	2016	2017	2018 [1]	2019 [1]	2020 [2]
A. Technical account in life insurance									
Net premiums written		15.9	16.0	15.1	14.4	14.4	15.3	16.3	14.9
Claims paid	(–)	18.3	18.1	19.7	18.7	17.6	16.7	17.1	17.6
Change in the provisions for claims	(–)	4.2	5.6	2.0	1.4	1.3	0.6	–6.4	–0.4
■ all life insurance classes excluding class 23		2.9	3.6	1.4	0.6	0.2	3.0	–10.7	–1.0
■ adjustments on class 23		1.3	2.0	0.6	0.7	1.1	–2.4	4.3	0.6
Premiums after insurance costs		**–6.6**	**–7.7**	**–6.6**	**–5.7**	**–4.4**	**–0.8**	**–7.3**	**–3.1**
Net operating expenses	(–)	1.7	1.6	1.7	1.6	1.7	1.7	1.7	1.7
Result before investment income		**–8.2**	**–9.3**	**–8.3**	**–7.3**	**–6.1**	**–2.5**	**–9.0**	**–4.9**
Net investment income		8.9	10.0	8.5	8.3	7.6	3.7	10.3	6.0
■ all life insurance classes excluding class 23		7.6	8.0	7.9	7.6	6.4	6.1	6.0	5.4
■ adjustments on class 23		1.3	2.0	0.6	0.7	1.1	–2.4	4.3	0.6
Technical result life insurance		**0.6**	**0.7**	**0.2**	**1.1**	**1.4**	**1.3**	**1.3**	**1.1**
B. Technical account in non-life insurance									
Net premiums earned		11.1	12.3	12.7	12.7	12.7	12.8	15.1	15.6
Claims paid	(–)	7.3	8.1	8.0	8.2	7.8	8.1	9.7	9.4
Change in the provisions for claims	(–)	0.7	0.5	0.7	0.5	0.6	–0.3	–0.6	–0.5
Premiums after insurance costs		**3.2**	**3.8**	**4.0**	**4.0**	**4.3**	**4.4**	**4.9**	**5.8**
Net operating expenses	(–)	3.2	3.6	3.7	3.8	3.9	3.9	4.7	5.0
Result before investment income		**–0.1**	**0.2**	**0.3**	**0.2**	**0.4**	**0.6**	**0.1**	**0.8**
Net investment income		1.2	1.3	1.3	1.2	1.2	1.1	1.2	0.8
Technical result non-life insurance		**1.2**	**1.5**	**1.6**	**1.4**	**1.6**	**1.7**	**1.3**	**1.6**
C. Non-technical account									
Total technical result life and non-life insurance		1.8	2.1	1.8	2.5	3.0	3.0	2.5	2.7
Residual net investment income		0.3	0.4	0.3	–0.2	0.4	1.0	0.6	1.0
Other and exceptional results and taxes		–0.7	–1.2	–0.9	–1.0	–1.1	–0.8	–0.9	–0.9
Net result		**1.4**	**1.3**	**1.2**	**1.3**	**2.3**	**3.2**	**2.3**	**2.8**
p.m. Return on equity (in %)		*10.2*	*8.8*	*8.2*	*9.8*	*17.6*	*16.4*	*10.3*	*12.5*

Source: NBB.

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2 Provisional data.

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