

# Financial Stability Report 2020





# Financial Stability Report 2020



# Contents

<b>Macprudential Report</b>	<b>7</b>
Introduction	7
I. A different kind of crisis	9
II. A resilient financial sector	17
III. A coordinated response	20
IV. Other points of attention concerning financial stability	44
 <b>Financial Stability Overview</b>	 <b>53</b>
Banking sector	53
Insurance sector	83
Additional charts and tables for the banking and insurance sector	98
 <b>Thematic articles</b>	 <b>107</b>
Overview of the Belgian residential and commercial real estate market	109
Climate-change-related transition risk associated with real estate exposures in the Belgian financial sector	141
 <b>Statistical Annex</b>	 <b>151</b>



# Macroprudential Report

## Introduction

The COVID-19 pandemic brought an abrupt end to a long period of relative economic and financial stability. In the context of a persistently low interest rate environment, supported by a highly accommodative monetary policy, that period featured moderate to low economic growth, low inflation, an acceleration of the financial cycle and generally risk-tolerant financial markets. In this macrofinancial environment, macroprudential policy therefore focused primarily on monitoring accelerating financial cycles and on ways of tackling any negative side effects of the low interest rate environment on local financial and/or real estate markets. This proactive macroprudential policy of a number of Member States – including Belgium – thus flanked the highly accommodative monetary policy in the euro area. The European Union's Stability and Growth Pact, which places the emphasis on structurally sound public finances, formed the framework of the budgetary policy. The eruption of the COVID-19 crisis however triggered a sudden, radical change in the macroprudential policy stance, in particular, switching from a preventive policy – designed to strengthen the financial sector's resilience – to a crisis policy centred on maintaining financial intermediation during the crisis, one measure being the (partial) release of capital and liquidity buffers.

The exceptional measures adopted in all parts of the world – particularly the lockdowns – are having a major impact on economic activities and on financial markets. Apart from the direct effects on global production and value chains, the high level of uncertainty over the scale and duration of the crisis also has a serious impact on macroeconomic demand and on financial markets. A simultaneous, global recession seems inevitable on the basis of the current data, and has clearly been reflected, certainly in the initial phase of the crisis, in substantial price corrections and in the reappraisal of credit risk, and even country risk, on the financial markets. Furthermore, the financial markets are still prone to great uncertainty regarding the crisis, which is reflected in high volatility. The Eurosystem's initial estimates, published in June 2020, seem to confirm the assumption of a deep recession.

*The COVID-19 crisis poses a significant challenge to financial stability*

As a result of the COVID-19 crisis, the Belgian financial system faces some major challenges, but it does have the advantage of a sound starting position. In contrast to the situation at the time of the 2007-2008 financial crisis, when the fragility of banks' balance sheets had been a significant catalyst of the crisis, the banking sector is playing a key role in cushioning the impact of the current crisis and supporting the real economy. Since the financial crisis, the Belgian banking sector has built up substantial capital and liquidity buffers, notably by restructuring and by prudent crisis management. Those buffers can now be used to absorb loan losses and maintain lending to the real economy. In that sense, the Belgian financial sector, and the banking sector in particular, constitutes a crucial lever for tackling and resolving the current crisis.

Against this background, national and international economic policy has also undergone radical adjustments, with a decisive and coordinated response to the crisis on the part of fiscal, monetary, microprudential and macroprudential policymakers. The first phase involves keeping the economy running and preserving the

conditions necessary for its recovery. That requires not only temporary support for the real economy (households and businesses), in the first place by adopting an active fiscal (and monetary) policy and maintaining the liquidity of the financial sector, but also – and that is essential – meeting important funding needs in the real economy that could result from the lockdown and the ensuing drop in demand. In addition, supplementary measures were introduced in order to strengthen the solvency position of businesses so as to limit the structural damage to the economic fabric and enable the economy to recover.

Apart from the direct fiscal and monetary policy support measures, prudential policy also indirectly plays a key role in addressing the crisis. Ensuring the continuity of financial intermediation – and especially lending – during the crisis is vital to mitigate the structural damage. Micro- and macroprudential policies have as a consequence of the COVID-19 crisis switched from preventive mode to crisis mode, and now supports the maximum – but

*Strong and coordinated  
intervention by policy  
makers is justified*

responsible – use of the capital and liquidity buffers, the limitation of any procyclical effects inherent in the financial system, and the maintenance of lending to the real economy. In that context, the Bank quickly released the countercyclical buffer at the first signs of the COVID-19 crisis, and if risks materialise on the real estate markets it can also release the macroprudential buffers formed for real estate risks. That said, it is for the banks to maintain

a responsible credit policy during the crisis in order to limit the addition of new, excessive risks to the balance sheets of credit institutions. That is why the Bank confirms the need for prudent risk management, especially in regard to mortgage loans, as stipulated in the prudential expectations for credit standards, published in October 2019.

This 2020 macroprudential report gives an overview of the Bank's macroprudential policy and places that policy in the context of the economic and financial policies adopted in response to the COVID-19 crisis. The first chapter of this report therefore examines the impact of the COVID-19 crisis on the real economy and the financial markets. The second chapter deals with the macrofinancial situation of the Belgian financial sector, and particularly the banking and insurance sectors, immediately before the crisis erupted. The third chapter focuses on the various specific measures adopted, paying particular attention to the micro- and macroprudential measures implemented by the Bank as the (macro)prudential authority. The fourth chapter examines a range of structural challenges requiring macroprudential attention and monitoring in the medium term. Finally, the main conclusions of this report and the macroprudential recommendations for the financial sector are summed up in the concluding section of the report.



## I. A different kind of crisis

### A. An unprecedented crisis

At the beginning of 2020, the global economy suffered the simultaneous, direct impact of the consequences of the COVID-19 pandemic. In the space of a few weeks, the moderate expansion phase in progress for several years in most economic regions came to an abrupt halt and was transformed into a deep and widespread recession in economic activity and demand.

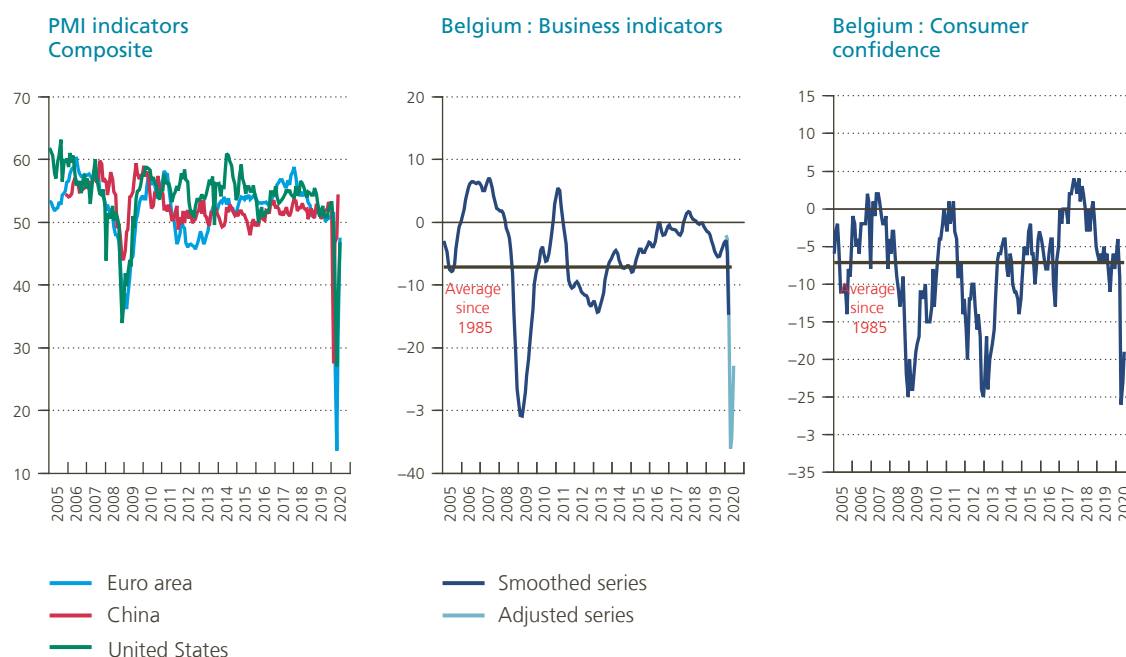
The PMI (purchasing managers' index) indicators, often considered as leading indicators of a country's economic activity, plunged dramatically, not only in China but also in the United States and the euro area. In China, the drop occurred in February 2020 with a rebound in March-April. In the United States and the euro area it came in March and was accentuated in April. Thereafter, the PMI indicators recovered markedly, particularly in June.

In Belgium, too, the battle against the COVID-19 pandemic required unprecedented public health measures, forcing the closure of whole swathes of the economy and confinement of the population. Surveys of businesses in the private sector reveal that turnover was down by around 35 % in the final days of March and in April 2020. That severely dented business and consumer confidence. Following an already significant, initial fall in March 2020, the economic indicators showed a collapse of confidence among Belgian business leaders in April, the indicator dropping to its lowest ever level. All branches of activity were affected. However, the largest declines occurred in the service and trade sectors. Consumer confidence also suffered the biggest fall ever seen, owing to large uncertainty about the general economic situation and the gloomy unemployment outlook. In May and June, in parallel with the easing of lockdown measures, confidence indicators regained some of their decline, but they were still far from their pre-crisis levels.

*The moderate expansion phase turned into a deep and widespread recession*

Chart 1

#### Monthly economic indicators



Sources: Markit, NBB.

The COVID-19 crisis has brought an abrupt end to a long period of moderate positive growth and acceleration of the financial cycle, in a context of low interest rates and low risk aversion on the financial markets. It has drastically altered that context, taking the economy into unknown territory. Large parts of the world were plunged almost simultaneously into a recession affecting both domestic demand and foreign trade.

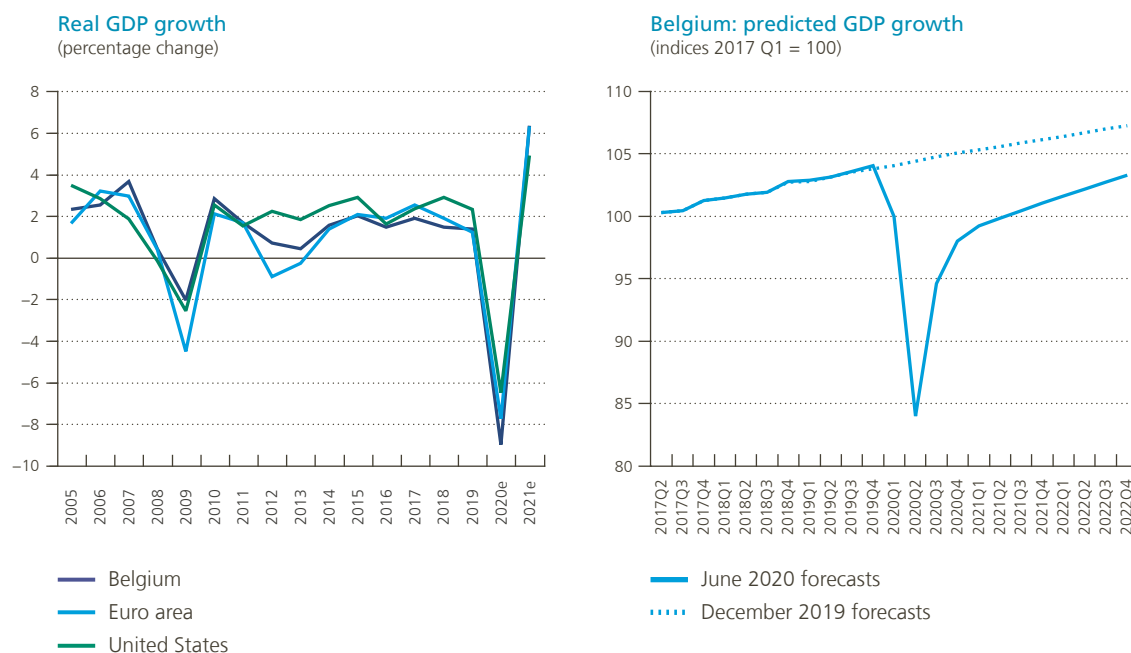
In Europe as in the rest of the world, monetary authorities and governments took unprecedented measures to contain the immediate damage to the economy and the labour market, and to ease the pressure on the liquidity of businesses and households.

The latest OECD forecast (10 June 2020) shows that global activity is expected to decline by 6% in 2020, while having barely declined during the 2008-2009 global financial crisis. In Europe and the United States, the recession is set to be even deeper. A few months earlier, at the beginning of the year, the moderate growth regime was still expected to continue.

In Belgium, according to the projections published by the Bank in June 2020, GDP will record a year-on-year average fall of 9% in 2020. A significant rebound from that steep decline is generally expected in 2021, with growth predicted at 6.4%, followed by 2.3% in 2022. However, that recovery depends very much on how the restarting of activities proceeds, and on the strength of consumption demand and foreign demand. In particular, it looks increasingly as if the easing of lockdown will be gradual, and could be punctuated by new outbursts of infection. The restart could also reveal breaks in the production chains, affecting international trade in particular. Finally, households could be inclined to limit their expenditure and maintain substantial precautionary savings after the lifting of the measures which have restricted their opportunities to spend.

## Chart 2

### Activity



Sources: EC, NBB.

More fundamentally, it is clear that the COVID-19 crisis is liable to leave deep scars on both businesses and households. According to the projections, the level of GDP expected at the end of 2022 will be almost 4 % lower than in the last projections produced before the pandemic erupted. Unemployment is set to rise by almost 3 percentage points, from an historically low level averaging 5.4 % in 2019, to 8.3 % in 2021, before subsiding slightly (7.6 % in 2022).

Apart from the pressure on firms' liquidity positions, the decline in turnover will place a burden on their financial structure. The accumulation of these losses risks turning into a solvency problem, with an increase in bankruptcies which will also affect viable companies that are profitable in normal circumstances. On the labour market, the main risk is that temporary lay-offs, being used on a massive scale, are converted to structural unemployment.

Significant waves of bankruptcies and rising unemployment would depress the economy's growth potential, in addition to the context of weak productivity growth and labour force pressures linked to population ageing, two factors which were already present before the COVID-19 crisis. That would in turn also put persistent stress on the business environment of the financial sector and – if the crisis were to turn into a widespread solvency crisis – it could ultimately create risks to financial stability.

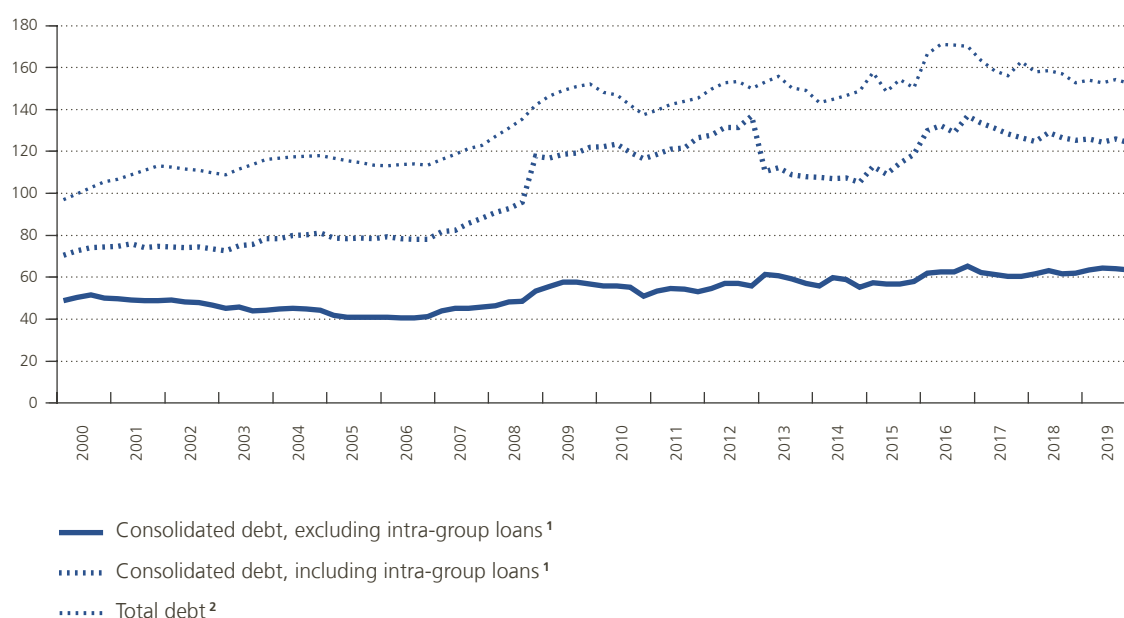
## B. Non-financial corporations

At the end of 2019, the debt of non-financial corporations had reached a relatively high level. In consolidated terms, i.e. excluding liabilities between resident companies, it stood at 124.2 % of GDP. A large part of that

Chart 3

### Debt of non-financial corporations

(in % of GDP)



Source: NBB.

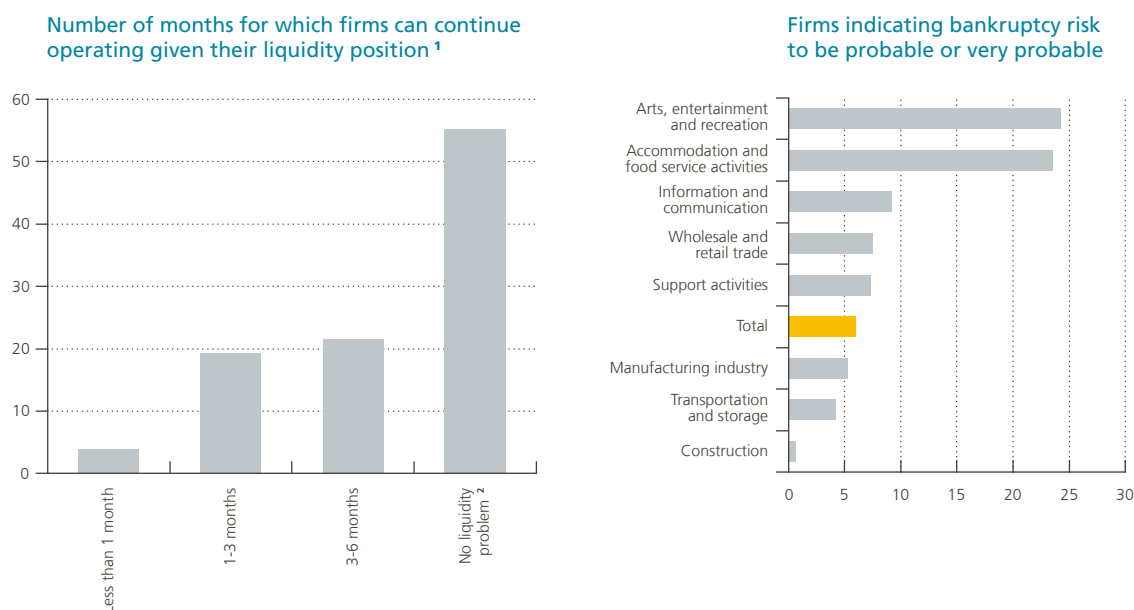
1 Intra-group loans are defined as loans granted by captive money lenders and by the foreign non-financial sector.

2 Includes debts to other resident non-financial corporations.

Chart 4

### Liquidity and bankruptcy risks of Belgian firms

(percentages of responses to a survey conducted from 8 to 10 June 2020)



Sources: ERMG, NBB.

<sup>1</sup> Assuming that no additional measures would be taken to support their liquidity position.

<sup>2</sup> Share of firms indicating that their liquidity position is sufficient to withstand the crisis, and those for which the measures already taken will enable them to remain operational.

outstanding amount relates to intra-group loans granted by foreign companies or obtained from captive money lenders. However, it is other components, particularly bank loans and debt instrument issuance, that were behind the growth of Belgian corporate debt over the past five years.

The growth of bank credit continued, also at the beginning of 2020, and accelerated sharply from 4.0 % year-on-year in February to 6.6 % in April. That rise is due mainly to the use of existing credit lines by a few large companies, in order to boost their liquidity reserves to the maximum at the start of the lockdown.

However, surveys by the Economic Risk Management Group (ERMG) show that many Belgian firms did not have sufficient liquidity to cope with a prolonged period of inactivity. In fact, only just 55 % of the firms polled in the second week of June stated that they had sufficient reserves to survive for longer than six months, while 23 % of them said that they would be unable to continue operating without additional funding within three months.

### Belgian companies face liquidity and solvency risks

Many firms are likely to mitigate these liquidity needs by resorting to bank credit, either by taking out new loans or by using existing credit lines, or by negotiating deferred repayment. If the difficulties that firms encounter prove more persistent, temporary solutions – such as the liquidity support measures – could however prove insufficient, and many businesses could face an increased risk of bankruptcy, especially those operating in the sectors hardest hit by the lockdown. In particular, the data from the ERMG survey conducted from 8 to 10 June 2020 show that 24 % and 23 % of businesses in the leisure sector and the food service and accommodation sector respectively considered that bankruptcy is probable or very probable.

## C. Households

In December 2019, Belgian household debt ratio, having risen almost continuously since 2003, reached 62 % of GDP. That debt consists mainly of mortgage loans (amounting to 53.2 % of GDP at the end of 2019). Conversely, in the euro area, starting from a higher level than in Belgium, the debt of individuals declined in the wake of the 2008 financial crisis before stabilising from 2018 onwards. At the end of 2019 it averaged 57.9 % of GDP in the euro area.

In Belgium, the annual growth of lending to households by resident banks remained stable in 2019 at a relatively high level (averaging around 5.7 %), thus contributing to the rise in individuals' debt levels. Since the beginning of 2020, it however declined and was 4.8 % at the end of April.

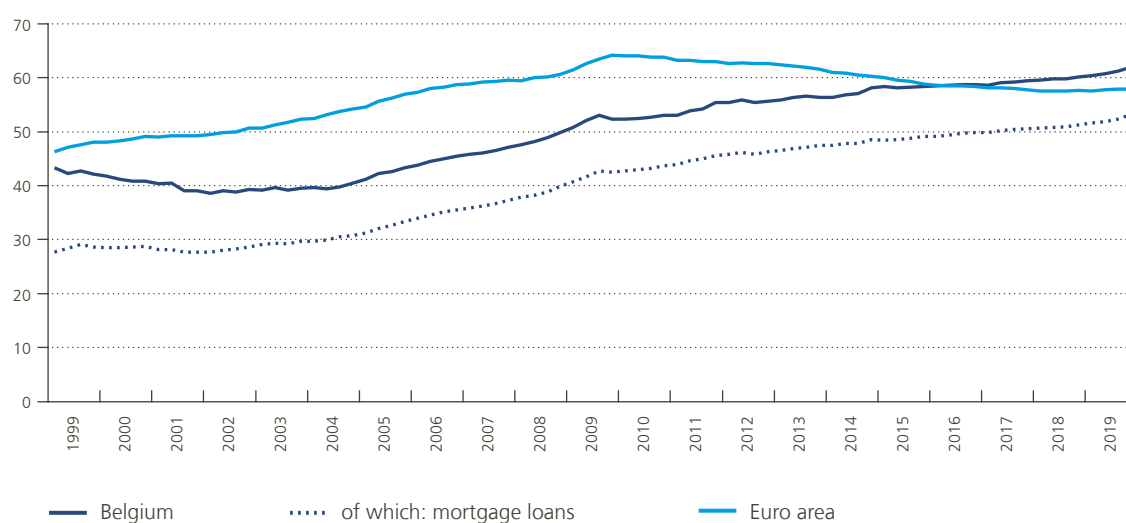
However, the high debt burden can be somewhat put into perspective, at the aggregate level, in view of the level of financial assets held by households. Financial assets and debts are however unevenly distributed among households. In general, highly indebted households are in a more fragile situation in the event of a reduction in income, in particular when their financial assets are meagre. These groups of households represent pockets of risk in regard to financial stability.

The current crisis could trigger income or asset shocks which, due to these vulnerabilities, could threaten households' ability to meet their debt obligations. Such shocks could arise as a result of entering a period of unemployment (whether temporary or not) or the cessation or bankruptcy of a self-employed activity. Two types of households are particularly vulnerable: those with a high debt-service-to-income ratio, and those which do not have sufficient liquid financial assets to compensate for their lost remuneration or increased expenses.

Chart 5

### Belgian household debt

(in % of GDP)

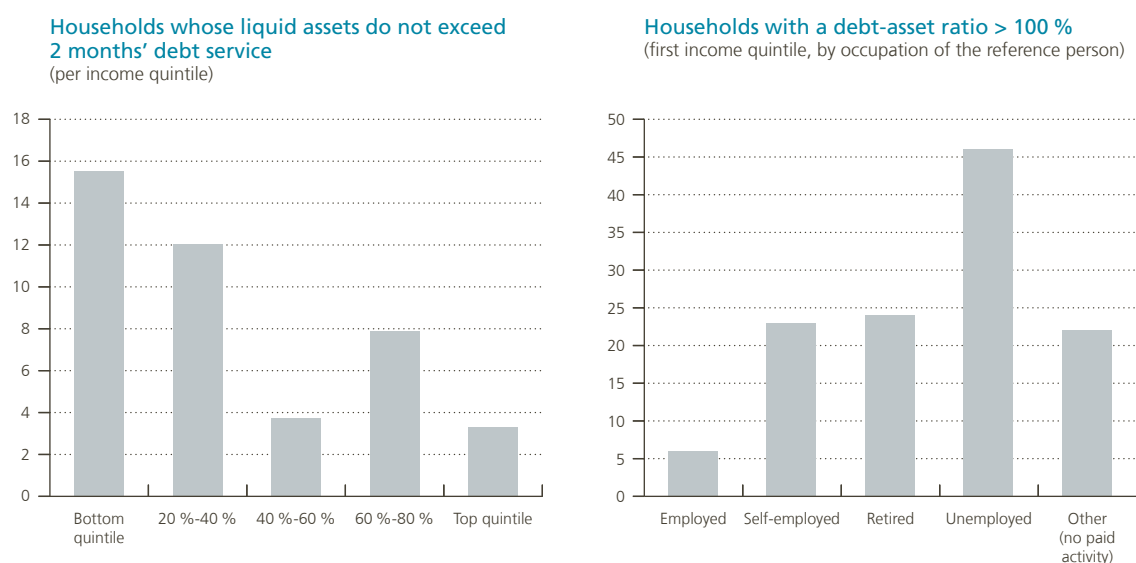


Sources: EC, NBB.

## Chart 6

### Belgian household liquidity and solvency indicators in 2017

(in % of indebted households)



Source: NBB (HFCS).

### Household repayment capacity could be threatened

The data from the third wave of the survey on the financial behaviour of households (HFCS), referring to the year 2017, provide additional information on the determinants of that vulnerability: in that year, 20 % of households in which the reference person pursued a self-employed activity and 7 % of single parent households had to contend with a debt service level that exceeded 30 % of their gross income. In addition, these two types of households could be particularly exposed to shocks to their income as a result of the COVID-19 crisis. Regarding the lack of financial savings of their own, 16 % of indebted households in the bottom income quintile did not have sufficient liquid assets to service their debt for two months.

Apart from liquidity problems, some households could also face solvency concerns. Household solvency is typically measured by the ratio between debt and total assets, offering some – albeit imperfect – indication of whether the household could, if need be, repay its debts by selling its assets.

According to the HFCS survey, debts were particularly high in relation to assets in the case of households receiving a more modest income, and for those in which the reference person was unemployed or had no paid work. Among households in the first income quintile with at least one current loan, that figure was 23 % for those where the reference person pursued a self-employed activity and 46 % for those where the reference person was unemployed.

## D. Financial markets

Amid great uncertainty over the scale of the recession and the outlook for recovery, serious tensions have emerged on the financial markets. The COVID-19 crisis has thus led to substantial price corrections and greatly increased volatility. Compared to their respective February peaks, the S&P 500 and Euro Stoxx 50 indices had respectively

lost 34 % and 38 % of their value on reaching their lowest point in March. The benchmark volatility indices of the American and European markets – the VIX and the VSTOXX respectively – rose sharply and ultimately exceeded the 80-point mark in mid-March, a level comparable to that seen at the time of the financial crisis in 2007-2008. Generally speaking, the markets subsequently responded favourably to the various monetary and fiscal support policies introduced in March and April in the euro area and the United States. After that, the slowing of the pandemic and easing of the lockdown rules also partly reassured the markets. Although they recorded large gains since late March and the volatility somewhat subsided, the arrival of new economic and epidemiological data left volatility at a relatively high level. In addition, fears of a second wave and the possibility of a weaker than expected economic recovery continued to affect the financial markets which, despite some improvement, remain sensitive to new developments.

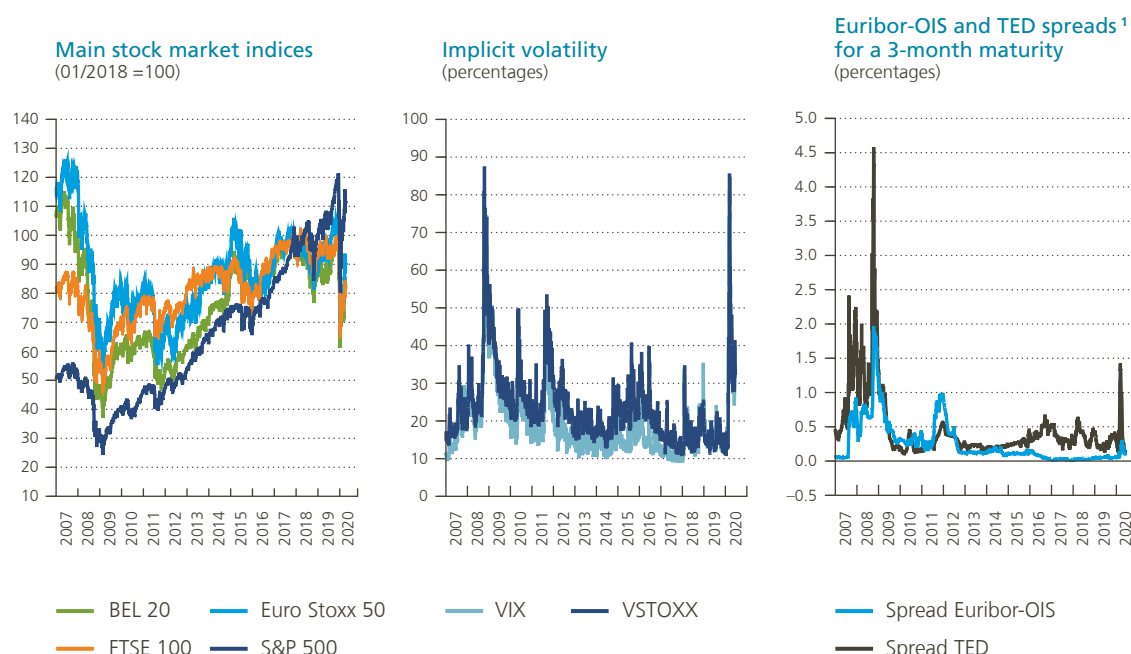
*Financial markets remain volatile*

The Euribor-OIS and TED spreads which indicate the credit risk perceived by the European and American banking sectors, have increased since the start of the pandemic. Although the increase in the spreads was sudden, it was less pronounced than that of the 2007/2008 financial crisis. An array of monetary, prudential and fiscal support measures helped to stabilise these spreads.

The COVID-19 crisis has likewise triggered an increase in sovereign spreads in the euro area. The spread on 10-year government bonds of various countries vis-à-vis to Germany has widened, particularly in certain countries hard-hit by the pandemic. In Italy and Spain, spreads increased rapidly from, respectively, 1.65 % and 0.68 % at the beginning of January to 2.82 % and 1.48 % on 17 March. The European Central Bank's (ECB) "Pandemic

Chart 7

### Stock markets, volatility and bank spreads

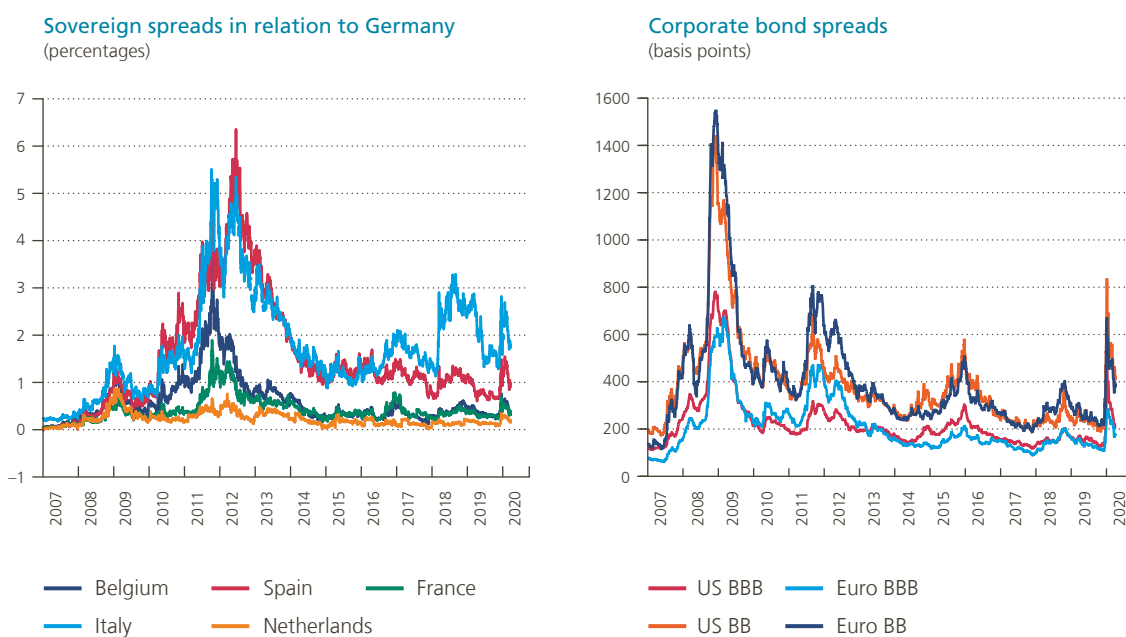


Source: Refinitiv.

<sup>1</sup> The Euribor-OIS spread is the differential between the Euribor (Euro interbank offered rate) rate and the OIS (Overnight Indexed Swap) rate for a 3-month maturity. The TED spread is the differential between the 3-month US Treasury bill and the 3-month Libor (London Interbank offered rate) in US dollars.

Chart 8

## Sovereign spreads and corporate bond spreads



Source: Refinitiv.

Emergency Purchase Programme" (PEPP), announced on 18 March, was welcomed by the markets and ended this initial widening of the spreads. Nonetheless, while the COVID-19 crisis has put pressure on public finances, doubts over the adoption of common economic recovery measures have been accompanied by some volatility in sovereign spreads. In June, risk premiums on certain countries' sovereign bonds still reflected market fears concerning the sustainability of their debt. Despite these difficulties, spreads remained at levels below those recorded at the time of the 2012 sovereign debt crisis.

Spreads between corporate and government bonds also widened for borrowings in both dollars and euros. Spreads increased faster for companies with a lower credit rating. However, some support policies did calm the markets. In the euro area, the ECB's PEPP introduced on 18 March (and extended on 25 March) curbed the widening of spreads on euro-denominated bonds (particularly those with a high rating). In the United States, the monetary and fiscal stimulus announced in the week beginning 23 March and the Federal Reserve's decision to extend its economic support measures, announced on 9 April, coincided with a sharp reduction in the spread on dollar-denominated borrowings and a (smaller) reduction in the spread on borrowings in euros. In May, the slowing of the pandemic and easing of the lockdown rules also had a favourable effect on these spreads.



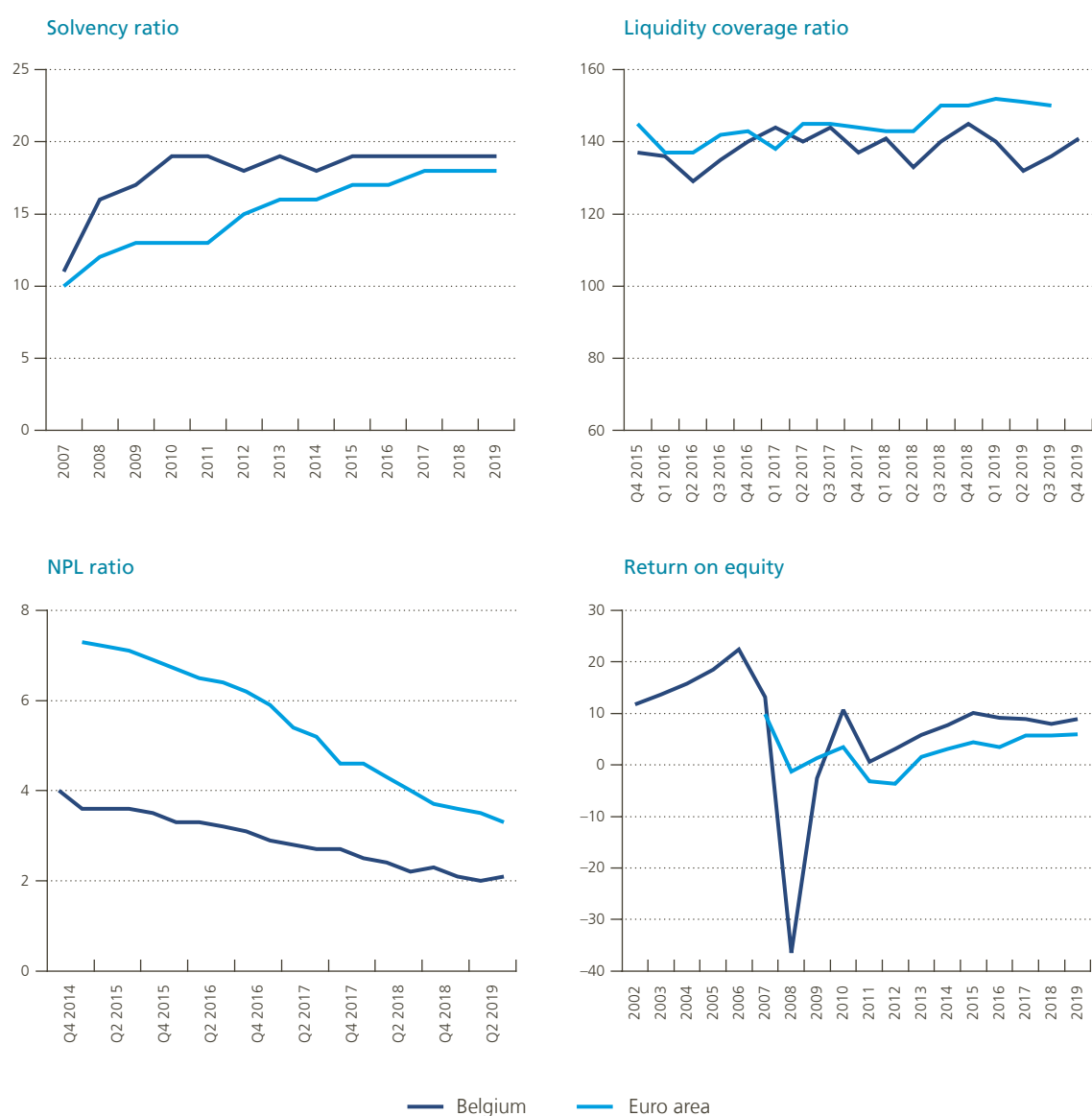
## II. A resilient financial sector

The previous chapter revealed substantial differences between the economic crisis associated with the COVID-19 pandemic and the 2008 financial crisis. Another difference between the two crises concerns the robustness of the financial sector. Following the 2008 crisis which had originated in the financial sector, the regulatory and supervisory authorities and the sector itself took many measures which made banks and insurance companies much more robust than they had been before the crisis. At the end of 2019, the financial sector was therefore better able to cope with a major shock than it had been in 2008, and thus to help resolve the economic crisis associated with the COVID-19 pandemic.

Chart 9

### Key indicators for the Belgian banking sector up to the end of 2019

(in %)



Source: NBB.

Following the 2008 crisis, the Belgian banking sector embarked on rapid and significant restructuring. Its total assets thus declined from just under € 1 600 billion at the end of 2007 to around € 1 000 billion at the end of 2013, a level which remained relatively stable until the end of 2019. This reduction in the activities of Belgian banks principally meant refocusing on their strategic markets, primarily Belgium, and traditional financial intermediation banking activities. This adjustment to its activities was accompanied by an improvement in the

Chart 10

Key indicators of the Belgian insurance sector



Source: NBB.

sector's solvency position and a marked reduction in non-performing loans (NPLs), achieved at a faster rate than on average in the euro area. Thus, at the end of 2019, the sector's total solvency ratio stood at 18.7 %, well above the minimum requirements and its 2007 level (11.3 %), and the percentage of non-performing loans had fallen to 2.1 %. At the end of 2019 the sector had also a comfortable liquidity position with a liquidity coverage ratio of 141 %. Despite a persistent low interest rate environment, Belgian banks on average also recorded better return on equity levels (between 8 % and 10 % since 2015) than the other banking sectors of the euro area, supported by favourable macroeconomic conditions in their strategic markets. Both the measures adopted by the supervisory authorities, notably in regard to the microprudential and macroprudential frameworks, and the rapid response by Belgian banks to the problems shown up by the 2008 crisis give the Belgian banking sector a strong starting basis enabling it to cope with the challenges associated with the COVID-19 crisis as well as the pre-existing challenges. These aggregate figures represent a sectoral average. The sector still displays some heterogeneity, i.e. some institutions are more or less robust than others.

*A resilient financial sector to  
help resolve the economic crisis*

In a low interest rate environment, the Belgian insurance sector faces a number of significant challenges, notably in the management of its large portfolio of life insurance products offering a guaranteed rate of return. In recent years, however, insurers have continued to be able to meet their commitments to their policyholders, notably after having conducted buy-back programmes, related to contracts with high guaranteed returns. As the duration gap between the assets and liabilities has been reduced, at sectoral level, in the past few years, the sector has become less sensitive to interest rate fluctuations.

Life insurance premium income has risen since 2018 after having fallen almost continuously between 2007 and 2017. In non-life insurance, the stabilisation of premium income between 2014 and 2018 has been accompanied by an improvement in the combined ratio, which relates the non-life sector's expenses to its income. Nevertheless, that ratio began rising again in 2019. It should also be noted that one reinsurer and a number of foreign institutions (whose business was transferred to Belgium ahead of Brexit) have been operating on the non-life market since 2018 and 2019 respectively. These companies have specific business models which are not in direct competition with other firms in the "non-life" sector. Nonetheless, inclusion of these companies in the scope of reporting influences the level of non-life premiums and the aggregate results at sectoral level. This applied in particular to the sector's 2018 results.

High levels of return on equity contributed to support the sector's solvency capital requirement (SCR) ratio which stood at 202 % at the end of 2019, pointing to a good solvency position, slightly lower than in 2018 due in particular to the automatic effect of the fall in interest rates on the level of own funds.

Like the banking sector, the Belgian insurance sector was in a robust starting position at the end of 2019.

### III. A coordinated response

As demonstrated in Chapter I, the impact of the COVID-19 crisis demands a coordinated and strong response by various authorities. There are several areas of support which are crucial, both in terms of support for the real economy and in regard to financial stability. A combination of multiple policies is used to tackle each of these challenges. Direct support for the real economy, discussed in section III.A, is reflected mainly in fiscal

#### *The scale of the crisis demands a coordinated and strong response*

stimulus policies, but also via an accommodative monetary policy. Among other things, that policy aims to ensure sufficient liquidity for the financial sector – at very advantageous rates – (section III.B) in order to enable it to continue performing its role to the full, notably by meeting the important funding needs of economic agents. Prudential policy likewise contributes to that aim by now allowing the banks to use the buffers built up in preceding years: the liquidity buffers, via the microprudential component, and the capital buffers, via the micro- and macroprudential components. That enables the banks to absorb the increasing expected losses and thus to ensure the continuity of financial intermediation (section III.C). The Bank has taken various measures on this subject, as part of the Single Supervisory Mechanism (SSM) in the case of the microprudential component, and on its own account for the macroprudential component. In order to help navigate out of the crisis, the financial sector finally needs to maintain a sufficient level of profitability, not just in the short term but also in the medium and long term (section III.D). While microprudential measures, in particular, can bolster the profit and loss account of financial institutions during the current crisis, the sector will ultimately have to address other, more structural challenges, notably those relating to the low interest rate environment and the digitalisation of financial services.

Table 1

#### Coordinated response by fiscal, monetary and prudential policies

	Fiscal policy	Monetary policy	Microprudential policy	Macroprudential policy
A. Support for the real economy	Package of measures, including moratoria, and guarantee scheme	Favourable financing conditions		
B. Liquidity in the financial system		Provision of extensive, targeted liquidity	Easing of the liquidity requirements	
C. Continuity of financial intermediation			Easing of the capital requirements Avoiding the payment of dividends	Release of the countercyclical buffer and forward guidance
D. Profitability of the financial sector	Reduction in credit risk (losses)		Flexibility in the application of accounting standards	

Source: NBB.

## A. Support for the real economy

The COVID-19 crisis has hit the economy hard. Many businesses have been forced to suspend or severely curtail their activities as a result of the public health measures, supply problems, or the slump in demand for their products and services. Large numbers of workers have become (temporarily) laid off and are suffering a significant loss of income. To cushion the economic impact of this crisis, fiscal and budgetary measures are crucial. Initially, they help to mitigate the liquidity needs of the economic agents during the lockdown period, and later they could help to reduce potential solvency problems if the crisis were to persist. For that reason, the competent federal and regional authorities (and the financial sector) speedily adopted strong measures to provide direct or indirect support for the liquidity position of struggling households and businesses, and then devised additional measures to strengthen the solvency position the latter. A selection of the fiscal and budgetary measures introduced in Belgium in the context of the COVID-19 crisis is presented below.

The authorities rapidly took measures to safeguard the short-term liquidity position of economic agents in difficulty. At federal level, there was direct financial aid for employees and self-employed workers. Employees were able to take advantage of both an easing of the criteria for access to “temporary lay-offs on grounds of force majeure” and an increase in the amount granted. Self-employed persons were granted easier access to the “droit passerelle” bridging allowance. In addition to these forms of direct financial aid, the federal executive also took care to introduce a number of supplementary indirect measures. For instance, an agreement, established in March 2020, between the federal government, the Bank and the banking sector contains a provision whereby individuals and businesses which were viable before the crisis but whose income has been significantly reduced as a result of the crisis can request their lender to grant a moratorium on their loan payments (see box 1 for more details on how these moratoria operate and are applied in practice). Insurers likewise supported this agreement, and have also undertaken to be flexible – up to the end of September 2020 – in dealing with firms and individuals affected by the COVID-19 crisis. At the end of May 2020, a 3-month moratorium (renewable once) on consumer loans complemented the arsenal of federal measures protecting the liquidity position of households (see also box 1). The March 2020 agreement also includes a federal guarantee scheme. That scheme covers up to € 50 billion in new short-term loans to businesses in order to encourage credit institutions to continue supplying them with the necessary liquidity, on the understanding that the State will only intervene if substantial losses materialise on the guaranteed portfolios (see also box 1). An initial evaluation of the impact of this guarantee system has shown the need to extend it and to partially redirect it also towards loans with longer maturities. At regional level, direct financial aid amounting to several thousand euros per firm was also granted in cases of total or partial temporary closure due to the public health measures adopted by the federal government. Concerning indirect regional aid, the three Regions also made provision for a moratorium on most repayments to public investment bodies in order to relieve the pressure on the finances of firms affected by the crisis. In addition, the executive authorities of the three Regions increased the cover capacity of their guarantee funds. That will make it possible to guarantee a larger volume of loans and/or to increase the percentage guaranteed per loan in order to create a leverage effect for the banking sector and encourage it to continue granting loans to businesses despite the crisis.

*The authorities rapidly took strong measures to support households and companies*

In view of the uncertainties over the persistence of the COVID-19 crisis and the solvency problems that a growing number of firms could face, public authorities introduced a series of measures designed to support and/or restore the solvency of businesses and to guarantee the continuity and funding of their activities in the longer term. At federal level, there was speedy provision for rescheduling the payment of various types of tax liabilities (payroll tax, VAT, personal income tax, corporate tax and tax on legal entities) in the case of businesses and individuals affected by the crisis. Between 24 April and 17 June 2020, the federal government also introduced a temporary moratorium on the bankruptcy of firms whose continuity is threatened by the COVID-19 pandemic and which were not subject to suspension of payments in mid-March 2020. In order to strengthen the solvency position of firms, these measures were then supplemented, on the one hand, by allowing self-employed persons and companies predicting a loss as a result of the COVID-19 crisis to reclaim advance payments and to claim

tax exemption<sup>1</sup> on part of their pre-crisis profits. On the other hand, companies in deficit after the crisis will receive favourable tax treatment of their future profits, provided in particular that these profits are used to restore the firm's pre-crisis solvency position. At regional level, budgets were also made available to enable regional investment bodies to grant loans directly to firms in need, the three Regions having decided to grant subordinated loans and/or loans at reduced interest rates.

Finally, the accommodative monetary policy of the ECB was further eased with the aim of continuing to ensure favourable financing conditions for households and companies (see Section III.B.).

<sup>1</sup> The exemption cannot exceed the result for the tax period and is subject to a limit of € 20 million. If there is no loss in the next tax year, or if the loss is less than the amount for which exemption was requested, a penalty may be imposed in the form of a tax increase (10 % tolerance is applicable to companies).

## BOX 1

### Functioning of the moratoria on payments and the federal guarantee scheme

In order to ensure continuity of funding for households, self-employed workers and businesses during the COVID-19 crisis, the federal government – on the initiative of the Minister of Finance and with the support of the Bank – reached an agreement with the banking sector at the end of March 2020 (insurers subsequently endorsed it as well). This agreement comprises two pillars: (1) a moratorium on mortgage loans and business loans, and (2) a federal guarantee scheme for new short-term loans to businesses. At the end of May 2020, the agreement was completed by a moratorium on consumer loans.

#### ***Moratoria on mortgage loans, business loans and consumer loans***

In March 2020, the financial sector has undertaken to allow mortgage borrowers, non-financial corporations and self-employed workers experiencing payment problems on account of the COVID-19 crisis to defer payment up to 31 October 2020 at the latest, without imposing any charges (arrangement fees, etc.).

In practical terms, this means that the moratorium on mortgage loans enables individuals (i) with no payment arrears as at 1 February 2020, (ii) suffering a reduction in income as a result of the COVID-19 crisis, and (iii) having liquid resources of less than € 25 000, to request deferral of their mortgage loan payments for a maximum of six months, provided that the loan concerns their single main residence. Thus, borrowers will ultimately repay their loan a maximum of six months after the original maturity date. Once the transitional period is over, if the household's net monthly income is € 1 700 or less, the payments will resume in the same monthly instalments as before. Otherwise, the monthly instalments will be adjusted upwards to take account of the postponed interest.

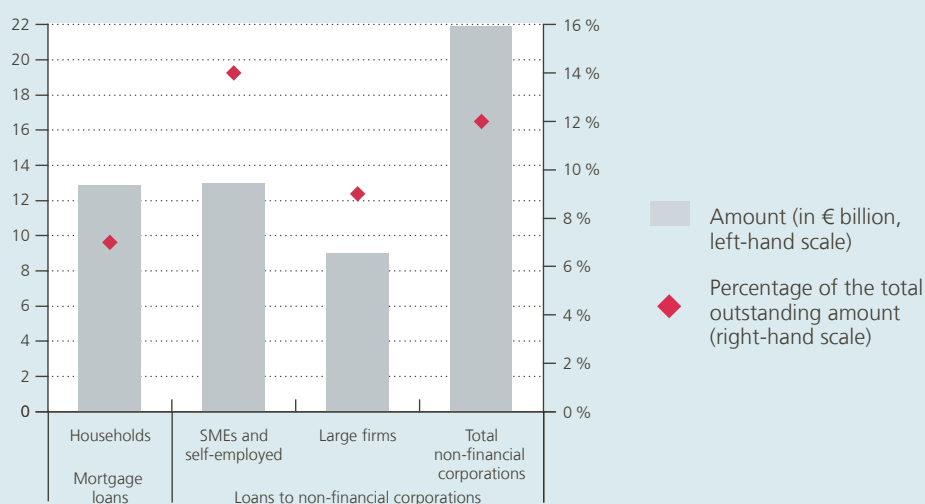


The moratorium on loans to non-financial corporations enables them to request deferral of capital repayments for a maximum of six months, but the interest is still payable. As in the case of mortgage loans, the firm will therefore ultimately repay its loan a maximum of six months after the original maturity date. To qualify for this moratorium the firm must (i) prove that it faces payment difficulties as a result of the COVID-19 crisis, (ii) be permanently based in Belgium, (iii) have no (or only minimal) payment arrears before the crisis, and (iv) have fulfilled all its contractual loan obligations in 2019.

At the end of May 2020, a moratorium was introduced by parliamentary means on consumer loans. This specifies that borrowers (i) suffering a loss of income as a result of the COVID-19 crisis, (ii) with no payment arrears of more than one month as at 1 April 2020, and (iii) not having movable assets in excess of € 25 000 can request deferral of payment of the capital and interest for a period of three months, renewable once for a maximum of three months, without being charged any administrative fees. However, the interest will be due for the deferral period and will be either spread over the remaining months or paid on expiry of the loan.

The chart below shows that on 21 June 2020 a moratorium applied to a total of € 12.9 billion of mortgage loans, or 7 % of the total outstanding amount of this type of loan. In addition, a moratorium also applied to a total of € 21.9 billion of loans to non-financial corporations, or 12 % of the total outstanding amount of this type of loan. Recourse to the moratorium is greater for SMEs and self-employed persons, with a moratorium on € 13 billion (or 14 % of the total outstanding amount), than for the largest firms, which have obtained a moratorium on € 9 billion (or 9 % of the total outstanding amount).

#### Use of moratoria for mortgages and loans to non-financial corporations



Source: NBB.



### ***Federal guarantee scheme for short-term loans to businesses***

At the level of the financial sector, the federal government initially undertook to guarantee up to € 50 billion in new short-term loans to non-financial corporations and self-employed workers between 1 April and 31 October 2020. The envelope is allocated to credit institutions according to their pre-crisis market share.

In practice, each credit institution's "reference portfolio" comprises all new loans (except for certain loans such as refinancing loans) granted to businesses and self-employed workers between 1 April and 31 October 2020 with a maximum term of 12 months. The federal guarantee applies by default to all loans in that reference portfolio except for loans (no more than 15 % of the reference portfolio) which the lender decides to keep out of the federal guarantee system. However, any loans which the lender keeps out of the guarantee system are still counted in its reference portfolio.

On 31 October 2020, the value of the reference portfolio will be fixed for each credit institution according to the loans actually granted. The total amount of the losses recorded on guaranteed loans will then be allocated between each credit institution and the federal State as follows: the first tranche of losses, up to 3 % of the value of the reference portfolio, will be borne entirely by the credit institution. If the losses are higher, the State will then share the second tranche of losses fairly with the lender (between 3 % and 5 % of the value of the reference portfolio). If a credit institution's losses exceed 5 % of the value of its reference portfolio, the State undertakes to compensate it for 80 % of that last loss tranche. If one and the same loan is covered in full or in part by one or more other guarantee schemes (e.g. a regional scheme), the other guarantors can ensure that the loss (or part of the loss) covered by more than one guarantee scheme is shared fairly between all the guarantors.

As the decline in economic activity following the COVID crisis may be of longer duration, an extension and a partial reorientation of the guarantee system towards loans with longer maturities seem useful.



## B. Guaranteeing liquidity in the financial system

Ensuring sufficient liquidity in the financial system and, in particular, preventing systemic liquidity shortfalls are essential to the stability of the international financial system, as the persistence of systemic liquidity shortfalls could exacerbate the impact of negative macroeconomic or macrofinancial shocks on the economy. If such liquidity shortfalls would paralyse key areas of the financial system, as happened during the financial crisis, the stability of the entire financial system and the continuity of lending to the real economy could then be compromised.

Although the eruption of the COVID-19 crisis has not yet engendered serious tensions on the euro area's money markets, the ECB took preventive action via a series of supplementary measures intended to limit the risks of liquidity gaps for European credit institutions. The Eurosystem (the system of central banks of the euro area headed by the ECB) has extended its effective safety net for European liquidity demand, which it set up since the financial crisis. This safety net comprises in particular a number of programmes for not only general but also targeted refinancing operations (the LTRO, TLTRO and recently the PELTRO<sup>1</sup>) aimed at making large volumes of liquidity (in the form of central bank money) available to euro area credit institutions against collateral, at historically low prices (in some cases, temporarily down to –1 %). In addition, the Eurosystem uses various secondary market asset purchase programmes to improve liquidity. The programmes conducted as part of the Asset Purchase Programme (APP) are temporarily supplemented by the Pandemic Emergency Purchase Programme (PEPP), providing an envelope of € 1350 billion. Finally, agreements between central banks on currency swap lines have created sufficient capacity to provide liquidity in foreign exchange, particularly US dollars.

Next to the various programmes of longer term refinancing operations guaranteeing the provision of liquidity on favourable terms, the ECB has temporarily consolidated and extended the pool of assets eligible as collateral in its refinancing operations, thus de facto increasing the liquidity of the balance sheets of credit institutions in the euro area. This extension enables credit institutions to mobilise a greater part of their assets in the event of liquidity shortfalls in order to obtain liquidity from the Eurosystem. The asset pool that can be mobilised in refinancing operations was amongst others temporarily extended by including loans backed by government guarantees (for example, loans to SMEs, self-employed persons and households). In addition, the credit ratings of the existing assets were frozen from 7 April 2020 onwards so as to neutralise<sup>2</sup> to some extent<sup>3</sup> the impact of any future downgrading of credit assessments on the liquidity situation of credit institutions. Finally, the ECB substantially increased its risk tolerance for these refinancing operations (a 20 % reduction in the discounts – haircuts – applied to the value of the collateral used), thus enabling credit institutions to obtain cheap funding to support lending to the real economy.

*Preventive action has been taken to limit the risk of liquidity shortfalls for banks*

Under these refinancing operations, the Bank has provided large volumes of liquidity for (primarily) Belgian credit institutions. Although Belgian banks have substantial liquidity buffers, with a Liquidity Coverage Ratio (LCR) of around 140 % (see Chapter II), the very favourable financing conditions are an important incentive to take up the liquidity provided by these programmes. In recent months, demand for refinancing, mainly through longer term refinancing operations (LTRO and TLTRO), has risen considerably. The Bank increased the refinancing, from around € 20 billion in 2019 to almost € 75 billion in June 2020. The favourable refinancing conditions may have encouraged the banks to make use of this funding.

1 Longer-Term Refinancing Operations (LTRO), Targeted Longer-Term Refinancing Operations (TLTRO) and Pandemic Emergency Longer-Term Refinancing Operations (PELTRO).

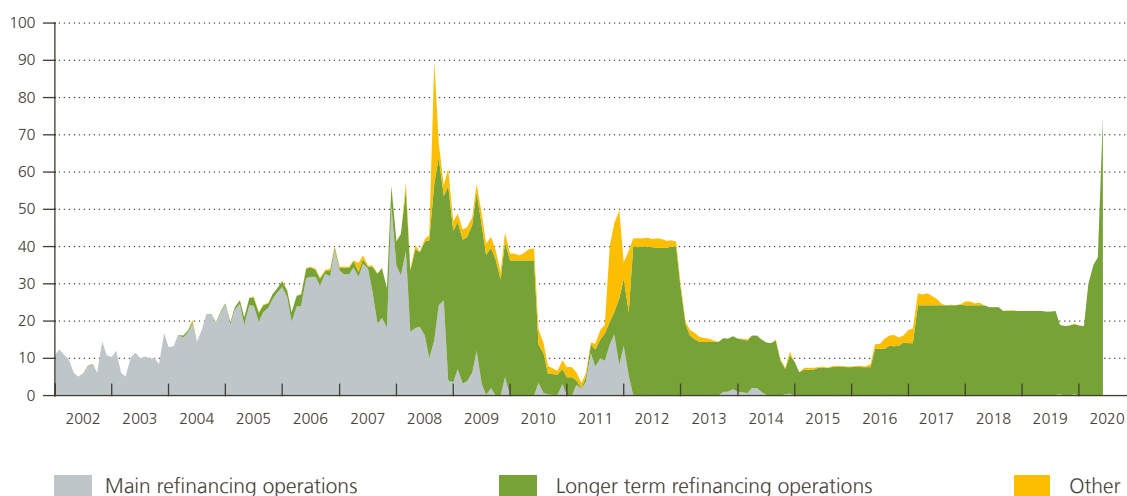
2 These measures form part of a series of ECB decisions on increasing the availability of collateral. Extension of the concentration limits on uncovered bank bonds, and permission to use Greek government bonds as collateral, are other examples of these decision. The relative importance of the various operations is difficult to assess in advance, and in any case it depends on the business model of the individual credit institutions.

3 It should be noted that the minimum lending criteria still apply. If an asset's credit rating falls below a lower limit, the asset is subject to a bigger haircut so that the refinancing cost is higher.

**Chart 11**

### Refinancing operations conducted by the National Bank of Belgium

(in € billion)



Source: NBB.

These measures to strengthen and expand the safety net seem to have ensured the euro liquidity of euro area credit institutions. In addition, reinforcement of the liquidity framework was accompanied by an easing of the microprudential liquidity conditions that banks are required to meet. By temporarily neutralising the 100 % LCR-requirement, the SSM and the Bank – i.e. the microprudential supervisory authorities for significant institutions (SI) and less significant institutions (LSI) respectively – enabled credit institutions to use the liquidity buffers built up since the crisis to support lending to the real economy.

## C. Continuity of financial intermediation

### 1. A preventive micro- and macroprudential policy aimed at maximising the use of the capital buffers to support the real economy

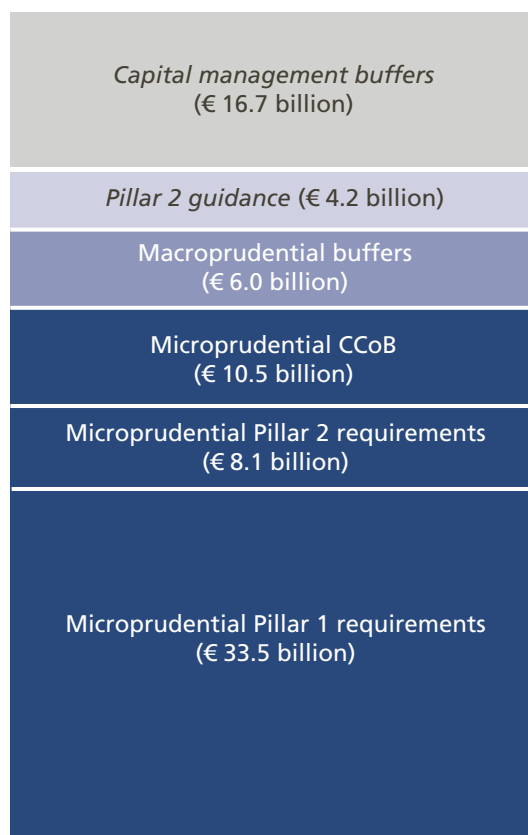
The financial sector – and the banking sector in particular – plays a crucial role in addressing the crisis. An efficient financial system in fact allows to mobilise the available financial capacity and the abundant liquidity provided by the monetary authorities in support of lending to the real economy. In view of the dominant position of the banking sector in financing the real economy in Belgium and in Europe, safeguarding the efficient operation of the bank credit channel is a priority policy goal. To achieve it, the banks must have the necessary room for manoeuvre both to absorb the adverse impact of the crisis on the sector itself and to mobilise the necessary (additional) supply of credit to meet the potential increase in loan demand. The substantial capital buffers of the Belgian banks could, if needed, be used in this context.

The Belgian banking sector has a sound starting position to support lending to the Belgian economy. As stated in Chapter II, the reform of the regulatory framework following the 2007-2008 financial crisis, plus the more prudent risk management and reduced risk tolerance of the banking sector combined with the re-orienting of the Belgian banking sector on its core business, facilitated the build-up of strong liquidity and capital buffers. In March 2020, the overall average capital ratio of the Belgian sector was around 19 % of the risk-weighted assets, corresponding to around € 79 billion in prudential capital.

## Chart 12

### Composition of the capital reserve of Belgian banks

(in € billion)



Source: NBB.

However, it is the composition of this capital reserve that largely determines the banks' solvency position and the direct availability of capital. In March 2020, Belgian banks were in a good solvency position. The banks' abundant capital reserves in fact reflect a large volume of readily available capital in addition to the capital requirements and guidance. This available capital – the so-called capital management buffer – totalled around € 17 billion at the end of 2019. This buffer represents roughly 4 % of the total risk-weighted assets and 1.4 % of the total assets. This means that banks can absorb a large quantity of loan losses or accommodate increases in the risk weights of existing portfolios. The size of these available capital management buffers should normally be sufficient to absorb a large part of the severe impact of the crisis if the crisis is short-lived and does not turn into a widespread and long-term solvency crisis in the real economy.

*Banks' available capital allows to absorb major losses*

Despite the large free buffers, the Belgian banking sector as a whole could still face significant challenges. An increase in loan losses and non-performing assets, upward revision of the risks on existing loan portfolios and the depreciation of certain assets seem inevitable in the context of the current crisis, and will necessitate the use of the available capital management buffers (see also box 2). If the COVID-19 crisis would spread and/or persist for longer than expected, and if liquidity problems in the real economy would turn into widespread and persistent solvency problems in broad swathes of the real economy, the free buffers could (in extreme cases) be eroded to the point where the banking sector would be forced to reduce its credit supply owing to possible

capital shortage. Such procyclical contractions of the credit supply could generate negative feedback loops and thus considerably exacerbate the impact of the crisis on the real economy. Even though that is not the most likely scenario, micro- and macroprudential policy has to anticipate that type of risk and make provision for preventive measures capable of averting such procyclicality and the emergence of negative feedback loops between the financial sector and the real economy.

## BOX 2

### Micro- and macroprudential policy geared to making capital buffers available

Economic and financial shocks affect bank balance sheets in different ways and via different transmission channels. Apart from the potential impact on a bank's liquidity position and profit and loss account, these shocks also affect its solvency position.

The degree of deterioration in the solvency position is a major determinant of the risk of procyclical reactions. In the baseline crisis scenario – in which the crisis is short-lived and the economy makes a sufficiently smooth and rapid recovery (scenario A) – solvency is, in principle, sufficiently sound to absorb the shocks without excessive secondary effects and without too great a risk of feedback loops. In an extreme scenario – such as a very prolonged crisis causing widespread solvency problems in the real economy (scenario B) – a bank's solvency may come under severe pressure, causing procyclical reactions. It is against this background that the different micro- and macroprudential preventive policy options that could give the banks sufficient additional leeway to enable them to absorb the losses in the event of extreme shocks, and thus to limit procyclical reactions, are discussed.

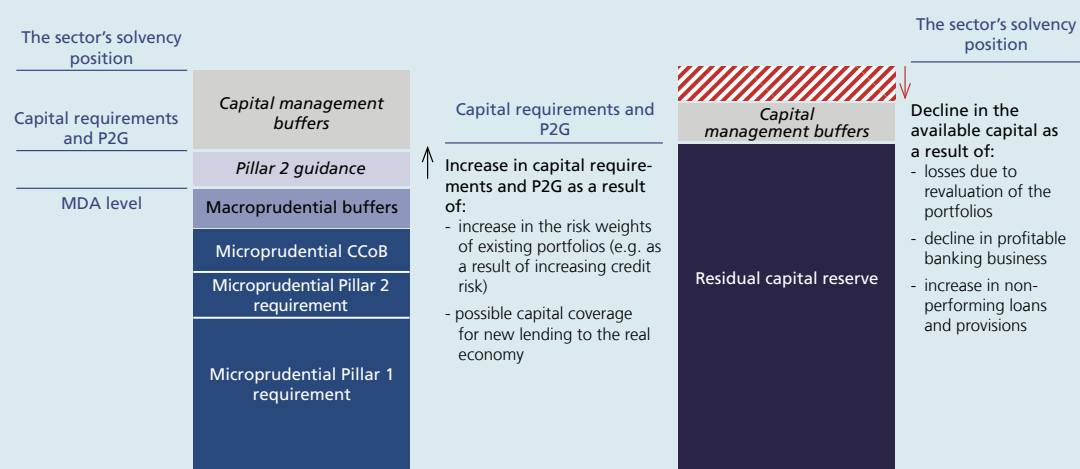
A solvency position of a bank – considered here as the difference between the capital requirements and guidance, on the one hand, and the available capital – is influenced by various transmission channels. On the one hand, a negative economic shock – such as the COVID-19 crisis – triggers an increase in the bank's capital requirements, in particular via the increase in the risk weights of the credit exposures. On the other hand, the available capital diminishes, e.g. as a result of the downward revision of the value of the assets held, possible loan losses and an increase in the non-performing assets. These two effects combined exert pressure on the bank's solvency position and could limit the granting of new, additional loans.

Banks normally hold sufficient free capital – as the so-called capital management buffers – to enable them, in normal circumstances, to absorb these fluctuations in the solvency position without risking a capital shortfall (see scenario A). In case of insufficient capital – i.e. the situation in which the available capital drops below what is known as the MDA (Minimal Distributable Amount) – a range of significant microprudential restrictions on dividend payments and remuneration is triggered, and the bank will be forced to implement strict recovery plans. By always maintaining sufficiently large capital management buffers, banks can avoid such restrictions and can as such ensure the continuity of their strategic planning.

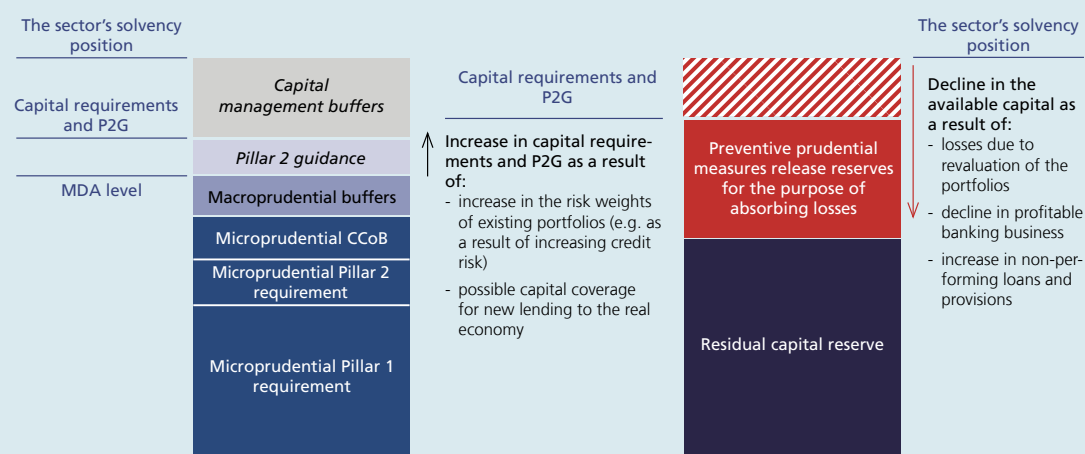


If extreme shocks occur, they may create uncertainty over the bank's solvency. In such circumstances, it could be that downward revaluations of assets, increasing non-performing loans and losses are such that the free capital buffer is no longer sufficient to meet the (increasing) capital requirements, creating the risk of a capital shortfall, as the total capital is no longer enough to satisfy the capital requirements and guidance (see scenario B). Although such a capital shortfall must not necessarily be a problem – the regulatory framework in fact allows the use of prudential capital buffers – it would nevertheless lead to

### Scenario A: impact on the bank's solvency position – baseline scenario



### Scenario B: impact on the bank's solvency position – extreme scenario



microprudential intervention, which would put the emphasis on rebuilding the capital reserves. In such cases, the microprudential supervisory authority will impose a strict recovery plan in regard to the capital, in addition to restrictions on dividends and (variable) remuneration.

To the extent that the risk of capital shortfall increases, banks are likely to adjust their risk tolerance, to refocus their business models and lending on less risky activities, and possibly to limit their lending to non-financial corporations. Although these are rational decisions at the level of the individual institution, this type of credit restrictions and reallocations could – if applied simultaneously by a large number of institutions, as in the case of an extreme crisis – cause systemic credit shortages in the real economy, and therefore further exacerbate the crisis. This systemic credit crunch would threaten to erode still further the solvency of the real economy, thus triggering a self-reinforcing negative spiral between the solvency problems of the banks and the real economy. This inherent procyclicality of the financial system is an important point of attention for the prudential supervisory authorities.

In order to limit the procyclicality of negative economic shocks and to safeguard lending to the real economy, it is important for micro- and macroprudential authorities to encourage responsible use of the capital buffers in the event of systemic crises. The microprudential authorities can allow banks to use the Pillar 2 guidance and the Capital Conservation Buffer (CCoB) during the crisis period without directly imposing the (excessively) rapid implementation of a recovery plan. In practice, that enables the banks to suspend fulfilment of the capital requirements temporarily (though the MDA restrictions still apply) and thus to support lending. In contrast to the microprudential authorities, the macroprudential authorities can release certain buffers. In particular, the countercyclical capital buffer (CCyB) and other buffers built up for specific risks could be freed up, making capital available to the bank. The macroprudential capital buffers would thus be converted into free capital, giving the banks more room for manoeuvre.

## **2. The preventive action of the European regulators and the European microprudential authorities encourages use of the buffers and limits the undesirable procyclical effects of the regulations**

It is vital to limit the procyclicality of the banking sector in order to ensure continuity of lending to the real economy. During the first quarter of 2020, the prudential regulators and supervisory authorities adopted significant, coordinated preventive measures which temporarily mitigate the procyclicality in the European regulations (particularly under the Capital Requirements Regulation – CRR) and at the same time enlarge the usable/operational capital base of the banks by making capital buffers available.

In April 2020, the European Commission published an interpretative communication and drew up a proposal for targeted amendments to the regulatory framework for banks. In its communication, the European Commission confirms and endorses the previous statements by the ECB, the European Banking Authority (EBA) and the Basel Committee, among others, on flexibility in the accounting and prudential regulations. In line with those statements, the European Commission encourages banks and supervisory authorities to take advantage of the flexibility of the EU accounting and prudential frameworks – e.g. in regard to the treatment of private and statutory moratoria or the encouragement of prudent dividend and remuneration policies. In addition, the

European Commission drew up a proposal for “quick fixes” – targeted adjustments to banking legislation – which strengthen the banks’ capacity to absorb losses and to limit any inherent procyclicality: as a result, the timetable for implementing IFRS 9<sup>1</sup> including certain procyclical elements – has been adjusted, State guarantees granted during the crisis receive more favourable treatment, the requirement concerning a supplementary buffer linked to the leverage ratio enters into force later than planned, and certain exposures – such as positions at central banks – are excluded from calculation of the leverage ratio.

In addition, on the basis of its mandate for microprudential supervision of significant institutions (SI) in the euro area, the SSM has adjusted its policy and its expectations concerning the use of the microprudential capital buffers, and the capital guidance (Pillar 2 guidance, P2G). First, the P2G capital was released and the partial substitution of core capital with capital of a lower order in the Pillar 2 requirements – planned for 2021 – was brought forward. According to the SSM’s estimates in March 2020, these measures will free up around € 120 billion of core capital for significant banks in the euro area which, on the basis of certain assumptions, would make around € 1 800 billion available for granting new loans<sup>2</sup>. The SSM also published a recommendation for euro area banks, requesting them not to distribute their 2019 profits but to convert them into supplementary capital. Finally, as the microprudential authority, the SSM will if necessary, and on a provisional basis, facilitate access to certain microprudential buffers. More specifically, in line with the original intentions of the international standard setters, the SSM will temporarily permit, where necessary, the use of the whole Capital Conservation Buffer (CCoB), legally fixed at 2.5 % of the bank’s risk-weighted assets. However, such use of the CCoB will be

*Preventive release of microprudential capital buffers increases banks’ room for manoeuvre*

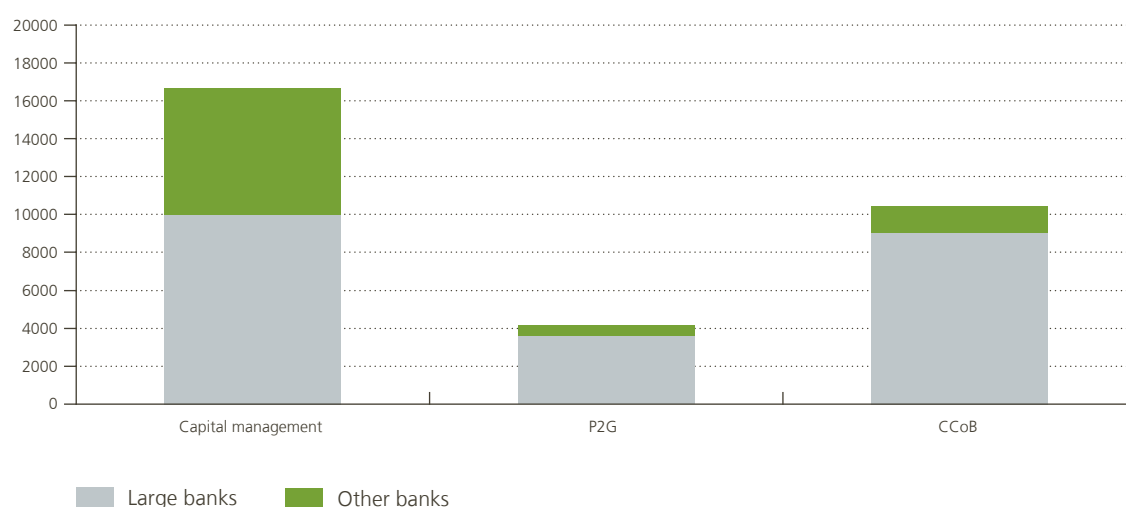
1 International accounting standards.

2 In its calculations, the SSM applies an average risk weighting based on the 75<sup>th</sup> percentile of the distribution of risk weightings of significant credit institutions in the euro area. That risk weighting therefore reflects not only the risk weighting before the COVID-19 crisis but also the pre-crisis balance sheet structure. This estimate – obtained by applying a multiplier of 15 – is a ceiling on the granting of additional credit supported by freeing up capital in this way.

Chart 13

### Available capital and management buffers, P2G and CCoB of Belgian banks

(in € million)



Source: NBB.

accompanied by legal restrictions on dividend payments and variable remuneration, and will entail submission of a recovery plan. As the microprudential authority for Belgian less significant institutions (LSI), the Bank extended these measures to LSIs. Both authorities confirm the importance of applying a flexible interpretation of the regulatory framework.

However, the success of this release of buffers depends largely on the banks using them effectively. After all, banks may be reluctant to breach the capital requirements. Not only does such a breach – e.g. the use of the CCoB buffers – automatically lead to restrictions on dividend payments and remuneration: the use of these buffers may also lead to a negative judgment by the financial markets – “stigma” effects – and result in more expensive bank funding and/or lower credit ratings. Finally, as a precaution against any future solvency problems, banks may initially hesitate to use the buffers too soon.

The release of P2G capital and access to the CCoB are likewise important to the Belgian banking sector, and especially for the four large banks. Release of the P2G increases the capital freely available to the banking sector by around € 4 billion, raising it to almost € 21 billion. On the basis of an extrapolation of the SSM estimates – and taking account of the usual precautions concerning interpretation of these figures – the additional support for lending as a result of freeing up € 4 billion (maximum) of P2G is around € 60 billion<sup>1</sup>. If necessary, the Belgian banking sector could also use the CCoB, which would provide an extra € 10 billion to absorb losses in extreme cases and/or to continue to support lending to the economy. Altogether, including the available capital buffers, the banks have more than € 31 billion in usable microprudential capital.

<sup>1</sup> In this extrapolation, we use the capital multiplier of 15 applied implicitly in the SSM estimates. Since the bulk of the P2G in Belgium is held by significant institutions, an extrapolation of the SSM estimates is in line with the SSM's underlying assumptions.

### BOX 3

## Solvency of Belgian insurance companies

During 2019, the fall in interest rates was reflected in a reduction in the sector's solvency capital requirement (SCR) ratio: as the market value of the liabilities increased by more than that of the assets, an automatic decline in own funds ensued. However, the SCR ratio still came on average to around 200 % at the end of 2019, pointing to a good solvency position. At the end of the first three months of 2020, that ratio had remained relatively stable on average. For the solvency of insurance institutions, the current crisis is equivalent to a “double hit” scenario, combining a decline in the risk-free yield curve with significant shocks to the main asset categories in the investment portfolio. The relatively limited impact on the SCR ratio apparent up to the end of March 2020 is mainly attributable to the volatility adjustment mechanism, described in more detail in the Financial Stability Overview, published in the Financial Stability Report 2020.

At the beginning of April, in view of the great uncertainty over the ultimate impact of the crisis on the sector's solvency and the heterogeneity evident in the sector, the Bank published a recommendation drawn up in accordance with the European Insurance and Occupational Pensions Authority (EIOPA) recommendation, calling on insurers to suspend temporarily the planned payment of dividends and to adopt a prudent attitude towards variable remuneration and profit sharing. That recommendation is a preventive measure designed to make certain that insurers have sufficient room to continue operating soundly and to provide the financial services that the real economy needs.



### **3. The COVID-19 crisis represented a fundamental shift in macroprudential policy, which has switched from a preventive stance to crisis management mode**

As macroprudential authority, the Bank is responsible for monitoring macrofinancial developments and systemic risks, and for maintaining financial stability. That mandate requires a proactive macroprudential policy tailored to the macrofinancial situation of the economy and the scale of the systemic risks. 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. But the macroprudential policy stance undergoes a fundamental shift if serious systemic risks materialise. In such a crisis mode, macroprudential policy gives priority to limiting the procyclicality inherent in the financial system, in particular by releasing the existing (countercyclical) macroprudential buffers and encouraging the banks to make responsible use of the structural buffers.

The COVID-19 crisis has resulted in exactly that type of fundamental change in macroprudential policy. The pre-crisis preventive macroprudential policy which, given the accelerating financial cycle and the sustained build-up of systemic risks on the Belgian property market, accorded priority to the creation of sufficient (countercyclical and property-related) capital buffers, has given way to a macroprudential policy in crisis mode focused on gradually releasing macroprudential buffers, as a preventive move, and limiting any procyclical reactions in the financial sector. This reorientation of the macroprudential policy paradigm in Belgium and in other EU countries conforms to the euro area's microprudential policies and therefore reinforces the general prudential policy stimulus and support for the banking sector.

#### **3.1 The pre-crisis macroprudential policy focused on maintaining the resilience of the Belgian banking sector**

Before the COVID-19 crisis, the Bank's preventive macroprudential policy led to the creation of macroprudential capital buffers, some of which were structural while others were countercyclical or specific to certain risks. Altogether, the macroprudential buffers created still came to € 6.0 billion, after the release of around € 2 billion of countercyclical buffers in Europe in the first quarter of 2020.

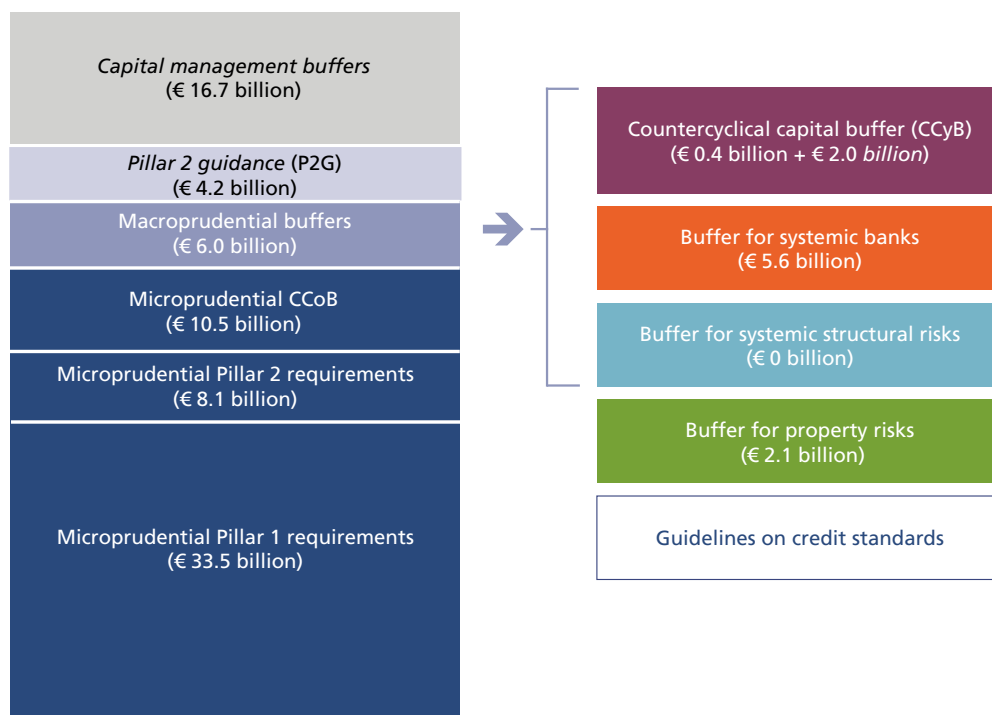
The structural buffers, called O-SII buffers<sup>1</sup> which apply to systemically important Belgian banks, are designed primarily to internalise the potential impact of these systemic banks on the markets (e.g. by contagion or by the influence on prices of a rush to sell off their assets), by increasing the cost of their actions. Systemically important banks are therefore required to provide additional capital coverage (for these actions). The Bank identified eight systemically important banks that have to create an O-SII buffer in accordance with their systemic importance: the four large banks (Belfius, BNP Paribas Fortis, ING Belgium and KBC Group) are subject to an O-SII buffer rate of 1.5 % of the risk-weighted assets; the other four systemically important banks (Argenta, Axa, Euroclear and Bank of New York Mellon) are subject to an O-SII buffer rate of 0.75 % of the risk-weighted assets. In total, these O-SII buffers represent € 5.6 billion. Although they can in principle be released (in whole or in part) by the macroprudential authority, these buffers tend to be regarded as structural: they are meant to ensure that the covering capital always takes account of the bank's systemic nature (and its potential influence on the market).

In 2019, in the context of persistently low interest rates and acceleration of the financial cycle, the Bank had decided to require the banks to hold a countercyclical capital buffer as well. In June 2019, the countercyclical capital buffer (CCyB) was activated at a rate of 0.5 % of the risk-weighted assets. Following the one-year transitional period specified by the legislation on the subject, this buffer requirement was to become mandatory from 1 July 2020. That decision led to a reservation of capital of around € 1.1 billion in countercyclical buffers

<sup>1</sup> Domestic systemically important banks are called other systemically important institutions (O-SII) in EU legislation.

Chart 14

### Pre-crisis macroprudential policy in Belgium



Source: NBB.

which, in contrast to certain structural buffers, can be released in the event of a crisis. The activation of the CCyB was justified by the acceleration of the financial cycle, as the dynamic growth of lending to the non-financial sector – and particularly to non-financial corporations – was no longer in line with economic growth. Key indicators such as the credit gap – which measures the deviation of the credit/GDP ratio from its long-term trend – and composite indicators of the financial cycle reached thresholds

*The Bank had taken a set of macroprudential measures prior to the crisis*

justifying on the basis of the ESRB recommendations, the activation of the CCyB. In addition, the acceleration of the financial cycle was perceptible in a number of euro area and European Union countries, notably as a result of the persistent low interest rate environment. In 2019, a number of Member States, including France, Germany and Luxembourg, activated or increased the

countercyclical buffer. Belgian banks with exposures in those EU countries were thus likewise required to form additional countercyclical buffers. Since the start of the crisis, part of the existing and scheduled countercyclical buffers<sup>1</sup> has been released (amounting to around €2 billion, including €1.1 billion due to deactivation of the Belgian CCyB). Consequently, the total countercyclical buffers of the Belgian banking sector declined to around €0.4 billion.

Finally, the Bank extended the current macroprudential measure which, on the basis of Article 458 of the CRR, stipulates an increase in the risk weightings applied by banks using internal models for exposures to

<sup>1</sup> The European regulations state that the decision to activate or increase the countercyclical capital buffer is, in principle, accompanied by a one-year transitional period between the decision date and the date on which the measure becomes legally binding. That transitional period is intended to give credit institutions sufficient time to build up and/or incorporate this additional regulatory capital in their existing capital structure.

the Belgian residential real estate market. This macroprudential measure has two components: a uniform 5 percentage point increase in the risk weights for all these banks, and a 33 % increase in the bank-specific microprudential risk weights for these exposures. The extension of this measure was deemed necessary on the grounds that the microprudential risk weights of Belgian banks do not (adequately) reflect the build-up of systemic vulnerabilities on the Belgian real estate market, such as the banks' increasing exposure to Belgian real estate, the upward trend in the household debt ratio, and the persistent (moderate) overvaluation of the real estate market. This macroprudential measure increases the average risk weights for Belgian real estate market exposures by more than 8 percentage points, boosting it from an average microprudential risk weight of around 10 % to a total risk weight of 18.3 %. Most capital requirements are expressed as a percentage of the risk-weighted assets, so that – as a result of the stipulated increase in the risk-weighted assets – this macroprudential measure implies that a larger volume of capital must be held to satisfy all the micro- and macroprudential capital requirements. On the basis of March 2020 data, an additional macroprudential buffer of around € 2 billion common equity tier-1 (CET1) capital was reserved pursuant to this measure as a specific reserve for absorbing real estate risks.

Next to the build-up of capital buffers, and notably in response to the September 2019 recommendation by the ESRB, the Bank published in October 2019 its expectations regarding the incorporation of stricter mortgage lending criteria in the banks' risk management. To be precise, the Bank published specific thresholds for certain loan criteria, such as the loan-to-value ratio, a factor which it regards as an indicator of a sound lending policy. By publishing these prudential expectations, the Bank aims to limit the accumulation of excessively risky loans on bank balance sheets, and ultimately to reduce the banks' risk of exposure to the Belgian property market.

### **3.2 Switch to requirement easing mode**

As mentioned above, the COVID-19 crisis has caused a shift in the macroprudential policy regime from the gradual, preventive accumulation of capital buffers to the easing of the requirements in order to ensure the continuity of the financial intermediation role of the financial sector, and more particularly the banking sector.

#### ***Countercyclical capital buffer***

As a result of the COVID-19 crisis and the anticipated significant, and potentially lasting, impact on global economic growth, the Bank expects substantial loan losses in various major segments of the Belgian banks' loan portfolio. A range of measures, including those taken at budgetary level (described in section III.A above), will limit the credit risk and hence the loan losses. However, it seems inevitable that those losses will be higher than before the crisis.

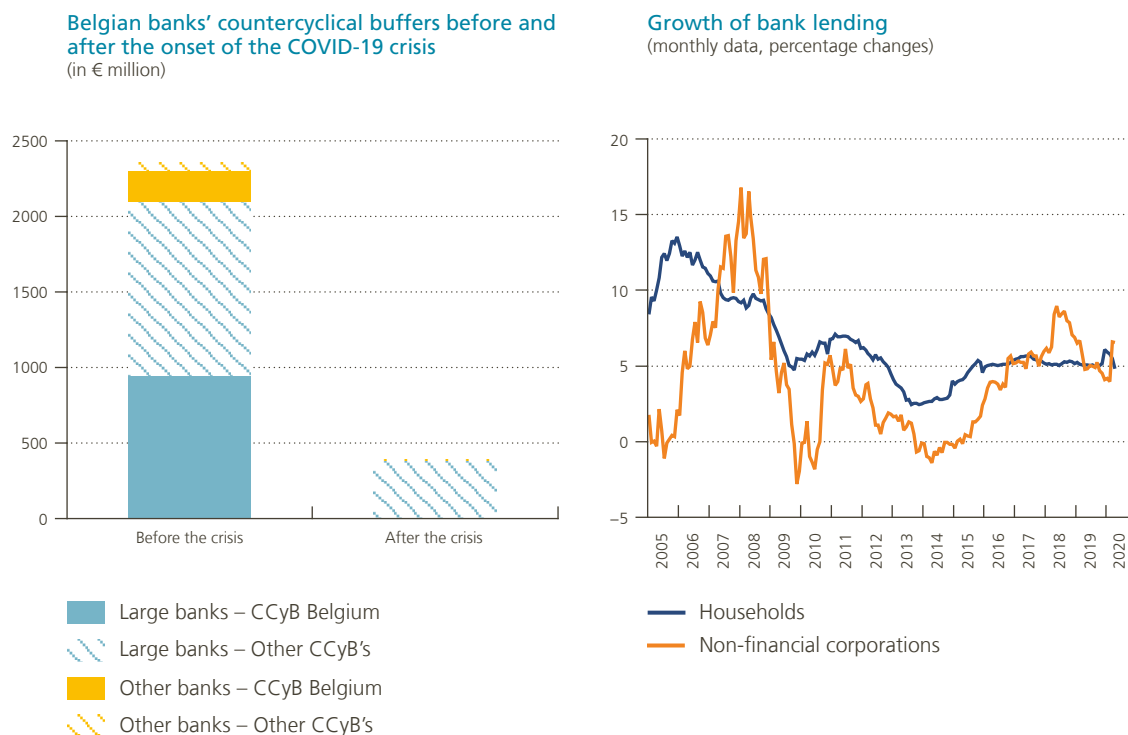
In line with previous communications stipulating that the countercyclical requirements could be eased in the event of a severe and persistent financial shock, the Bank considered that the countercyclical capital buffer created to give banks some leeway to cover such loan losses could be released as a preventive move, in order to ensure the continuity of the services offered by the banking sector to the real economy and thus to preserve financial stability. Deactivation of the countercyclical buffer from the start of the crisis thus averts procyclical behaviour which would, for example, lead to a reduction in lending at a time when loans are particularly necessary, notably for non-financial corporations. According to the baseline projections and current risk assessments, the Bank does not expect to increase the countercyclical capital buffer during the period up to at least mid-2021.

***The countercyclical capital buffer has been released as a preventive move***

In practice, the release of this countercyclical buffer in Belgium boosts the capital management buffers by around € 1 billion. As many other European countries have also eased their countercyclical requirements, an additional buffer of € 0.8 billion, built up for the exposures of Belgian banks to households and non-financial corporations based in other countries, has also been made available to the Belgian banking sector.

Chart 15

## Countercyclical buffer and credit expansion



Source: NBB.

The Bank continues to keep a close watch over credit cycle developments. However, the standard monitoring indicators, notably the credit gap and bank lending growth rates, are less relevant in the current circumstances. In its decisions on the countercyclical buffer, the Bank will focus more on changes in the credit quality indicators, such as the level of non-performing loans, and will ignore – at least in the short term – the (potentially procyclical) signals which could emanate from the standard indicators, such as the credit gap, which measures the deviation of the credit/GDP ratio from its long-term trend. In the short term at least, dynamic lending – particularly to non-financial corporations – is desirable to satisfy the funding needs of the real economy resulting from the lockdown and the fall in demand. At the end of April 2020, lending to households was growing at an annual rate of 4.8%, lower than the end-2019 level which had been driven up by anticipation of a change in the tax rules on mortgage loans in Flanders with effect from 2020. The decrease is also partly due to the effect of the lockdown. The growth of lending to non-financial corporations came to 6.6% at the end of April 2020, significantly exceeding the February figure (4.0%), mainly as a result of firms drawing on existing credit lines.

## Real estate market

In view of the scale of the Belgian financial sector's exposure to residential and commercial real estate markets in Belgium and the corresponding significant impact that developments on those markets could have on the Belgian financial sector and on financial stability in general, the Bank has been keeping a close eye on the real estate and mortgage markets for a number of years now.

In regard to the residential property market, the Bank currently has two complementary macroprudential tools, namely a specific capital buffer introduced in 2013 and supervisory expectations concerning the criteria for granting new mortgage loans, applicable since 1 January 2020.

In 2013, as the Belgian macroprudential authority, the Bank had decided to introduce a specific macroprudential measure for the residential housing market, providing Belgian banks with a dedicated CET1 capital buffer which amounted to around € 2 billion at the end of March 2020 (see section III.C.3.1. above).

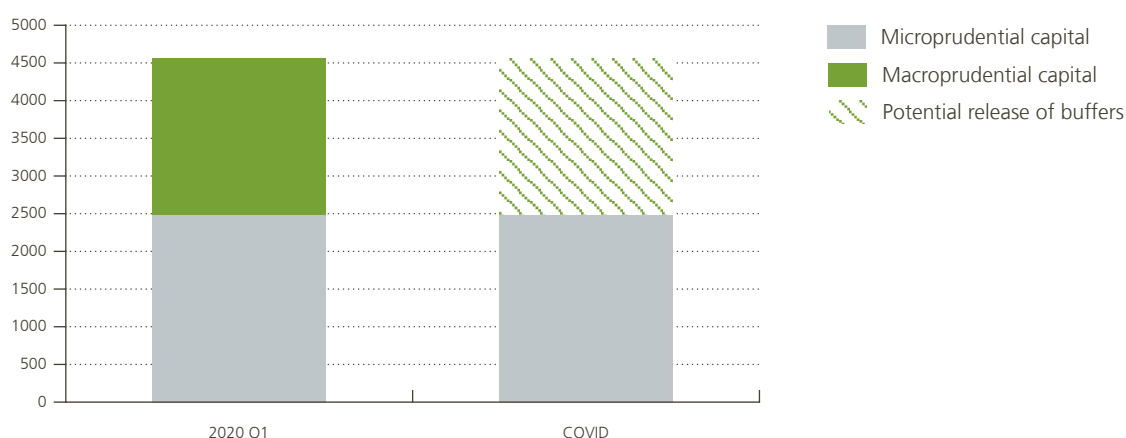
At macroprudential level, the capital made available by releasing the entire countercyclical buffer gives the banking sector some initial leeway (see above). Of course, if the risks which led to the build-up of the buffer specifically designed for real estate market exposures were to materialise, the requirement could be lifted and the buffer could be used to absorb the losses. At the time that this report was finalised, the Bank had not seen any marked materialisation of these risks and had therefore decided to keep the requirement and the capital buffer in place. Those risks could materialise, for instance, in the form of a significant rise in payment defaults and loan loss provisions. To ascertain the extent to which such a materialisation is or could be significant, and hence have a serious impact on financial stability in Belgium, the Bank continues to keep a close watch on all developments on the Belgian real estate and related markets. In view of the major shock associated with the COVID-19 crisis, particularly for household incomes, it is becoming more important to monitor certain indicators. The percentage of Belgian mortgage loans on bank balance sheets and the percentage of defaulting loans form a first series of key indicators. Market developments, notably regarding transaction numbers and house prices, will also be closely monitored.

*The measures concerning the real estate market are maintained for the time being*

Chart 16

### Capital buffers of Belgian banks for real estate market risks

(in € million)

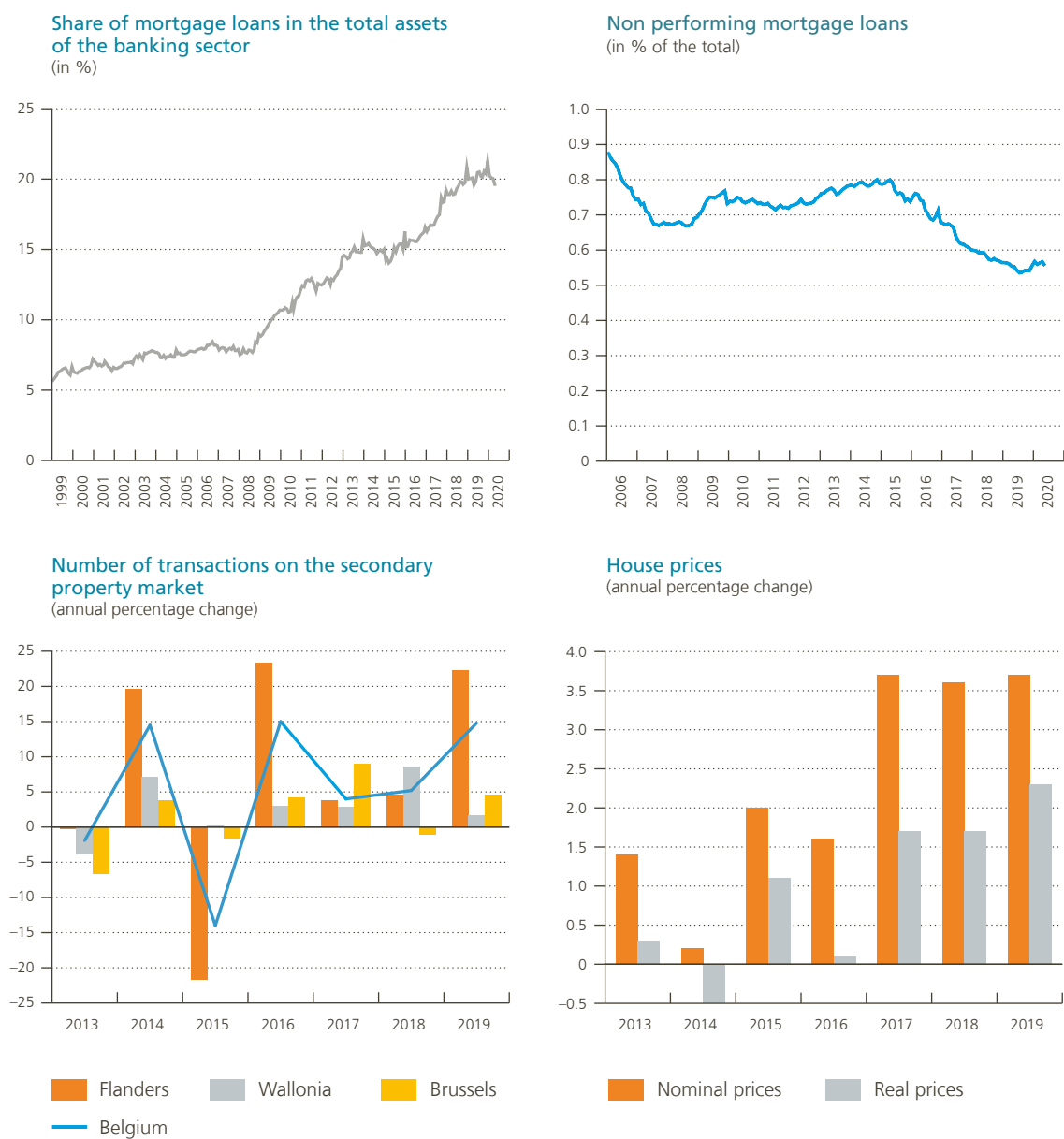


Source: NBB.

The share of mortgage loans in banks' balance sheets, which has risen steadily since the start of the millennium, highlights the importance of that portfolio for the banking sector. At the end of 2019, the share of defaulting loans had risen slightly after having fallen continuously since the end of 2014. That small rise in defaults partly reflects a reduction in the mortgage portfolio quality following the easing of credit criteria over the past few years. In 2019, there had been a surge in activity on the real estate market and the number of transactions had risen by 15 %. This sharp rise was due mainly to the impact on demand of anticipation of the abolition of the woonbonus (tax relief

Chart 17

### Monitoring of developments on the property market

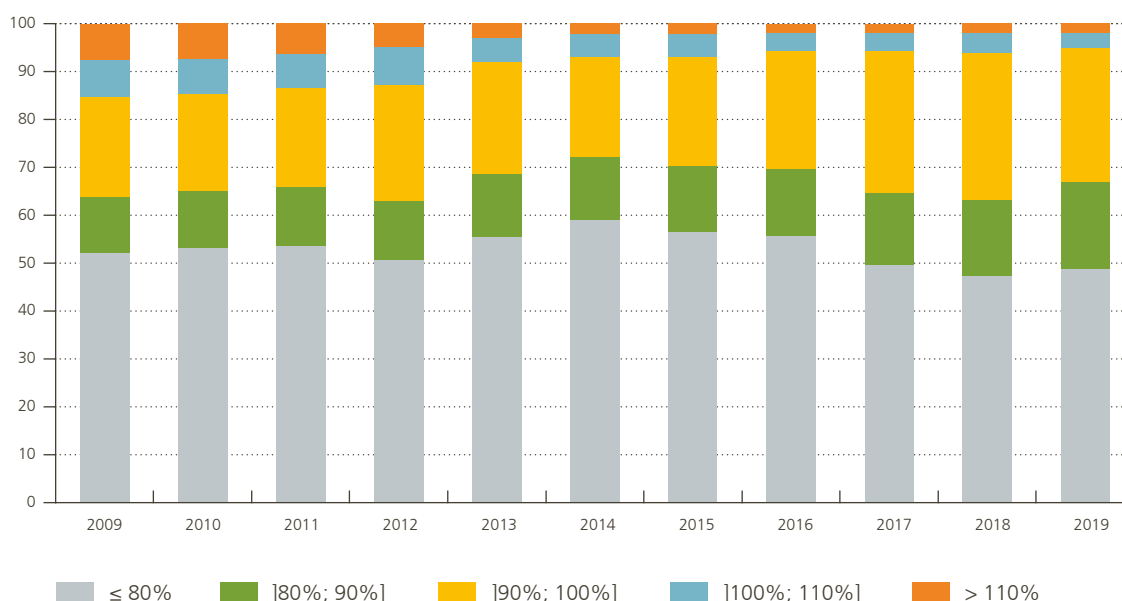


Sources: ECB, NBB.

Chart 18

### Loan-to-value ratio

(new mortgage loans per vintage, percentages of the total)



Source: NBB.

on mortgage loans) in Flanders on 1 January 2020. A similar effect had occurred in 2014 when the woonbonus relief had been reduced. Property prices continued to rise in 2019 by 3.7 % in nominal terms and 2.3 % in real terms. When this report went to press, data on property market activity during the first quarter of 2020 were not yet available.

During 2019, a new initiative applicable from 1 January 2020 was added to the existing capital buffer requirement. In recent years, and in an environment of fierce competition, mortgage lending had been accompanied by a renewed easing of lending standards, notably as regards new loans with a high loan-to-value ratio. In view of that, the Bank published supervisory expectations in October 2019, setting thresholds for a series of indicators which will serve as benchmarks for mortgage lending.

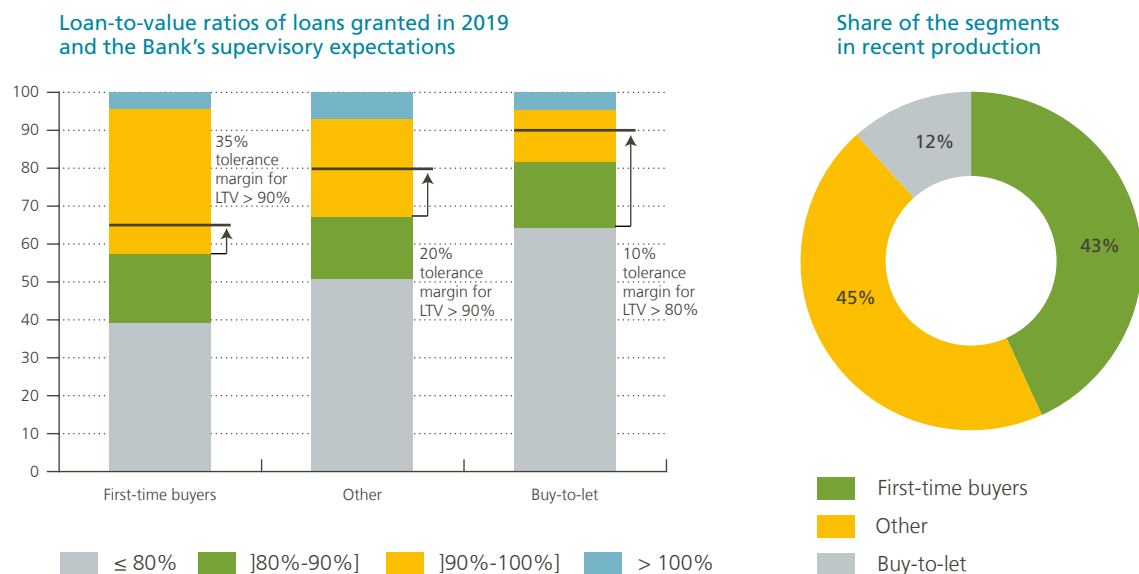
To prevent new business from involving a high and rising proportion of risky loans, banks and insurers are requested, among other things, to be more cautious in granting loans with a very high LTV ratio. The Bank also issues expectations concerning certain combinations of specific risks, also known as pockets of risk, such as high LTV ratios combined with high debt-to-income (DTI) ratios, linking the borrower's total debt to his income, or high debt-service-to-income (DSTI) ratios, linking the monthly repayment burden to income.

These supervisory expectations provide an answer to the ESRB recommendation addressed to Belgium in September 2019 on the activation of measures directly affecting the profile of new loans.

Close checks on compliance with the expectations will be introduced on an annual basis for a selection of institutions (banks and insurers) in view of the size of their stock of mortgage loans in Belgium. In order to maintain access to the mortgage market for solvent borrowers, however, the Bank leaves the institutions concerned sufficient flexibility to let them take account of the borrower's entire profile and any mitigating factors when deciding whether to grant the loan. For that purpose, the Bank has set tolerance margins, recognising

Chart 19

### The Bank's supervisory expectations for new mortgage loans



Source: NBB.

that some of the new loans may exceed the benchmark thresholds. For example, the expectations stipulate that 35 % of loans to first-time buyers – who generally have relatively low levels of own funds – may have an LTV ratio above the benchmark of 90 %. The requirements concerning the buy-to-let segment, where the borrower finances a property as a rental investment, are stricter. In this segment, only 10 % of new loans can have an LTV ratio of more than 80 %. In addition, the Bank applies the “comply or explain” principle, whereby a lender may deviate from the expectations provided it can demonstrate that its lending policy remains cautious. These various mechanisms give lenders some flexibility and will avoid any undue shock to the Belgian mortgage market.

When this report went to press, the Bank had decided to keep these prudential expectations in force for new mortgage loans. In particular, the Bank considers that it remains necessary to ensure that there is no increased risk in new mortgage loan production. Furthermore, the easing of these expectations would not release any capital for the banks and therefore would not enhance their capacity to absorb any losses in the portfolios concerned. In other countries, too, most national macroprudential authorities have maintained their requirements concerning the criteria for granting new mortgage loans.

## D. Profitability of the financial sector

The continuity of financial intermediation also depends partly on the long-term profitability of the financial sector, as profits are the first source for creating and restoring capital buffers. The consequences of the COVID-19 crisis will exert serious pressure on the profitability of banks and insurers. Various measures taken at both budgetary and microprudential level will have an impact on those profits. The financial sector also needs to continue taking due account of the challenges which predated the current crisis and which will probably persist when it is over, particularly those relating to the low interest rate environment and the viability of certain business models. The



profitability of Belgian banks and insurers is covered in more detail in the Financial Stability Overview, published in the Financial Stability Report 2020.

## 1. Measures taken as part of the coordinated response

At microprudential level, the SSM and the Bank both recommended credit institutions subject to their supervision to avoid excessively procyclical assumptions when drawing up their consolidated accounts on the basis of the IFRS accounting standards. Among other things, those recommendations concerned IFRS 9 and the assumptions forming the basis of the expected credit loss (ECL). Guidance on the use and relevance – in the context of the crisis – of models developed in tempore non suspecto should reduce any undue volatility in the profit and loss account and in the own funds, avoiding or limiting the potentially procyclical effects of credit constraints. The guidance is also intended to ensure a certain degree of comparability between the results of different institutions.

Various budgetary measures taken by Belgian and foreign public authorities will limit the increase in the default risk of non-financial corporations and households, and hence attenuate to some degree the expected increase in losses to be recognised by financial institutions (see section III.A above). Some of those measures are channelled directly via the financial sector: moratoria, guarantee for new loans, and temporary reinsurance of short-term commercial credit. In some cases, these measures will generate costs for the financial sector (notably in view of the impairment of certain exposures). However, those costs are expected to be more than offset by the benefits of these measures (e.g. in terms of future loan losses).

## 2. Profitability of the banking sector

In some cases, the measures described above will limit the negative impact of the crisis on the profit and loss account of Belgian banks. However, it seems inevitable that the crisis will depress the sector's profits.

An increase in payment defaults will lead to a rise in the level of loan loss provisions to be recognised. In the first quarter of 2020, the amount of loan losses recognised came to € 500 million. A number of banks have already published forecasts for 2020 as a whole, showing significantly larger amounts. The actual level of losses to be recognised will depend on the severity and duration of the recession, but also on the quality and speed of the subsequent recovery. In view of the expected impact on GDP growth, it appears inevitable that the low level of losses recorded in recent years will need substantial upward revision.

**Table 2**

### Income statement of the Belgian banking sector

(consolidated data, in € billion)

	First quarter of 2019	First quarter of 2020
Net interest income	3.61	3.73
Net fee and commission income	1.33	1.47
Other sources of income	0.59	-0.08
Operating expenses (–)	4.10	4.29
Impairments and provisions (–)	0.26	0.50
Net profit / net loss	0.90	0.17

Source: NBB.

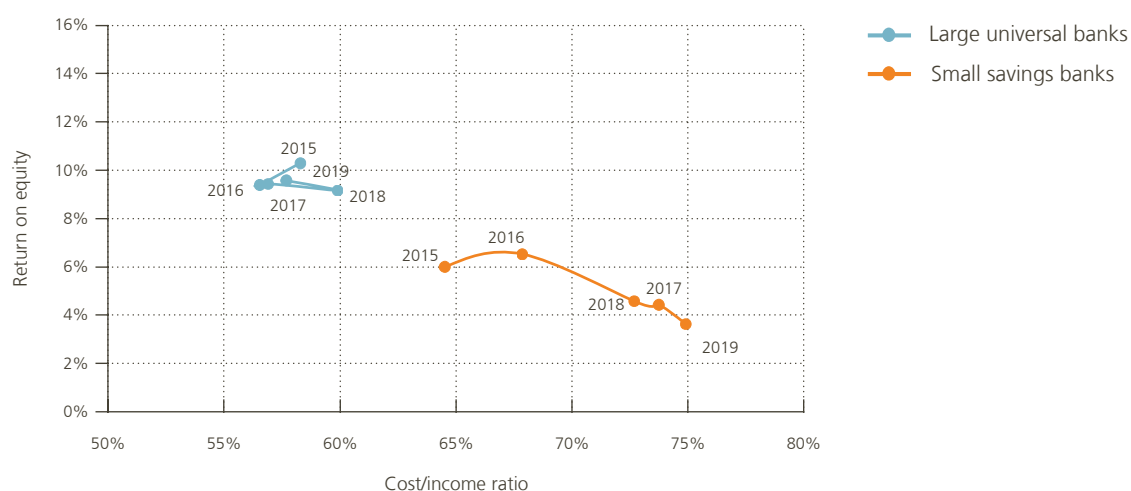
The banks' various income sources will also come under pressure. In recent years, Belgian banks had compensated for the shrinking interest margins (due to the persistent low interest rate environment) by increasing loan volumes. Net interest income was maintained at a high level in the first quarter of 2020 (€ 3.7 billion, compared to € 3.6 billion for the corresponding period of 2019). In the first three months of 2020, in particular in March, the growth of lending to companies had accelerated, notably as a result of firms drawing on existing credit lines, whereas there was a slight dip in the growth of lending to households. Net fee income also increased during the first quarter of 2020. The volume of lending will be driven down by the reduction in demand for certain types of loan (notably investment loans for businesses or consumer loans for households) in a tough economic context, but driven up by demand for loans covering the liquidity needs of the real economy, part of which will come under the State guarantee scheme. However, in a recession situation credit granting is expected to become less dynamic over the coming quarters. The pricing of new loans will also affect net interest income. The uncertainty and volatility on the financial markets are likewise expected to depress fee income.

During the first quarter, the Belgian banking sector also had to recognise significant losses on portfolios of assets recorded at market value, notably as a result of the widening bond spreads and initially falling stock markets. However, it should be noted that the total amount of these exposures is much smaller than at the time of the 2008 crisis, making the Belgian banks less vulnerable to fluctuations in the market value of certain assets.

Overall, the banking sector recorded a profit of € 170 million in the first quarter of 2020, down from the corresponding period in 2019 (€ 900 million). It is worth pointing out that most of the (annual) bank levies are recorded in full during the first quarter, artificially depressing the result for the first three months. Nevertheless, for 2020 as a whole the main Belgian banks expect results to be positive, albeit lower than in previous years, particularly in view of the amounts of the loan loss provisions that they think they still have to recognise. However, these forecasts are being made in the midst of uncertainty, and future results will depend on many factors, including the severity and duration of the current crisis. Another point to bear in mind is that the banks have large capital buffers and – partly thanks to the intervention of the supervisory authorities – are capable of absorbing losses.

Chart 20

#### Profitability of Belgian banks, by size



Source: NBB.

The impact of the COVID-19 crisis on the income statement of Belgian banks comes on top of the pre-existing challenges, more especially those relating to the low interest rate environment and the more structural challenges concerning, in particular, the sector's cost structure in an increasingly digital financial world, the lack of diversification in income sources, and the fierce competition on certain markets. Those challenges will continue to persist when the current crisis has subsided. They particularly affect medium-sized and small banks applying a business model concentrated on certain markets where the impact of both the low interest rate environment and strong competition is especially keenly felt. In addition, larger institutions are sometimes better able to achieve economies of scale, certainly in the context of digitalisation, and thus to improve their cost efficiency. In Belgium, in recent years, the cost/income ratio of the four leading banks was thus significantly lower than that of smaller institutions, and on average their return on equity was more stable and considerably higher. While the viability of the existing business models remains a challenge for the entire Belgian and European banking sector, it seems that certain less diversified – and generally relatively small – institutions particularly need to make an effort (and restructure if necessary).

*The impact of the crisis on the profitability of the sector comes in addition to the pre-existing structural challenges*

### 3. Profitability of the insurance sector

As in the case of the banks, the COVID-19 crisis will weigh on the profitability of the insurance sector in Belgium.

The crisis could have a negative impact on the amount of premium income in non-life business, notably in view of the slackening pace of economic activity. However, the level of premium income in non-life insurance continued to rise during the first quarter of 2020 (€ 3.9 billion, against € 3.8 billion in the corresponding period of 2019). In life insurance, the expected rise in the number of corporate bankruptcies could affect group insurance. In the case of individual life insurance, while the high volatility on the stock markets is likely to reduce the attractiveness of class 23, a degree of risk aversion could steer individuals more towards the guaranteed returns of class 21. During the first quarter of 2020, total life insurance premium income (€ 4.4 billion) was down by around 10 % compared to the corresponding period of 2019, indicating that the negative effects mentioned above have prevailed.

Insurance companies will definitely see erosion of their investment income, too, as a result of the crisis, particularly what is happening on the financial markets.

The crisis is also having an effect on insurers' expenses. In non-life business, higher claims are expected on certain types of policies (cancellation insurance, medical expenses, etc.), while claims on other types of cover (such as vehicle damage following the lockdown period) are likely to fall. In life insurance, lapse risks cannot be ruled out.

Just as in the case of the banking sector, the specific impact of the COVID-19 crisis on insurers' income and expenses comes on top of the pre-existing challenges, notably those relating to the low interest rate environment. As mentioned above, insurers had already adapted to that environment to some extent in recent years, notably by embarking on buy-back programmes for contracts with high guaranteed returns. Narrowing of the duration gap between the assets and the liabilities had also made the sector less sensitive to interest rate fluctuations.

However, the persistence of the low interest rate environment will remain a challenge for the sector in the future, particularly in regard to the reinvestment risk in class 21 life insurance, i.e. the risk of being unable to find an investment offering a sufficient return to continue to honour contracts with guaranteed returns without a disproportionate increase in the investment portfolio risk. Further thought is therefore needed on the viability of the business models and diversification of income sources.

The profitability of insurance companies will thus remain a key point for attention in the years ahead, also because it is the best way of strengthening the sector's solvency if that becomes necessary.

## IV. Other points for attention concerning financial stability

### A. Climate risks and environmental risks

Even in the difficult circumstances of the current COVID-19 crisis, one must not lose sight of the fact that the battle against climate change is still an urgent and essential problem, and that we must do more to encourage the timely start of a transition to a more sustainable economy in order to attenuate the risks associated with climate change and that transition. The Bank has been paying particular attention to these risks for a number of years now. Thematic articles published in the 2018 and 2019 Financial Stability Reports describe in detail how the physical risks and transition risks may significantly increase traditional financial risks such as credit risk, market risk, operating risk, liquidity risk and insurance risk. In publishing these articles, the Bank aimed to encourage financial institutions to monitor, assess and manage these risks.

To achieve the target reductions in greenhouse gas emissions set by the Paris agreement and the European Green Deal, supplementary measures are clearly necessary. However, the exact nature of those measures is currently unclear, and that lack of clarity is contributing to the scale of the climate-related risks. The Bank considers that the introduction of a minimum energy efficiency requirement for buildings and a carbon levy could be plausible policy measures for achieving the set targets. However, the longer the delay in taking supplementary measures, the more stringent and radical the measures will need to be in order to achieve these targets. As described in the thematic article in the 2020 Financial Stability Report, such policies may imply significant transition risks if they are introduced suddenly.

In order to assess these transition risks, notably as regards the financial sector's exposures to real estate, financial institutions need to have information on the energy efficiency of their exposures to residential and commercial property. The recommendation on collecting that information, addressed by the Bank to financial institutions in the thematic article on climate-related risks published in the 2019 Financial Stability Report, was therefore reiterated by sending out a letter. In addition, the Bank supports the financial sector's efforts to gain access to regional databases on the energy performance certificates of residential accommodation. On the basis of that information, institutions can analyse the extent to which energy inefficiency should be considered a major risk factor for the current and future credit risk of their real estate exposures and, if necessary, take that into account in their risk management.

If the risk analyses show that loans for the purpose of financing high energy efficiency buildings or improving the energy efficiency of buildings are associated with lower risks, institutions can also apply more favourable rates to those loans. Offering cheaper finance for high energy efficiency renovation encourages property owners

and firms to make their buildings more energy efficient, and the banks can contribute to the transition and thus help to reduce the potential future transition risk.

*An abrupt transition to a more sustainable economy could entail risks*

International supervisory authorities and networks of supervisors are also working actively to improve the assessment of climate-related financial risks.

For example, the Network for Greening the Financial System (NGFS) recently published a series of useful information documents<sup>1</sup>. The Financial Stability Institute and the Basel Committee have begun assessing the impact of climate-related risks on financial stability and prudential supervision. In May 2019, EIOPA presented the European Commission with its advice on sustainability in risk management, investment strategy and product management and supervision. At the end of 2019, the European Banking Authority published an action plan in

<sup>1</sup> These documents include a guide for supervisors on the inclusion of climate-related risks in prudential supervision, a status report on common practices in financial institutions regarding the distinction between so-called green and brown exposures, a handbook and a set of reference scenarios for carrying out scenario analyses, a report on the potential impact of climate change on monetary policy and a report on research priorities related to climate-related financial risks, the macroeconomic impact of climate change and the potential impact on monetary policy. These publications can be found at <https://www.ngfs.net/en/liste-chronologique/ngfs-publications>.

favour of sustainable finance, accompanied by recommendations for credit institutions. It is also in the process of establishing a series of mandates for the inclusion of Environmental, Social and Governance (ESG) risks in risk management, prudential supervision and the publication of information on those risks. In May 2020 the ECB published a consultation document defining the prudential expectations concerning environmental and climate risks, and it is working with the ESRB to prepare a series of measures and methodologies for the assessment of climate risks to financial stability. The European Commission's work on sustainable finance, particularly on devising a taxonomy and a public communication framework, is very important in this connection.

It can also be noted that the concept has now taken on a wider dimension, progressing from purely climate-related risks to environmental risks and even ESG risks. There is often therefore a link or a similarity between these risks. For example, environmental policies such as the ban on single use plastic may imply transition risks, and corporate measures in favour of the climate which ultimately cause serious environmental damage may imply reputational risks. In addition, the combination of climate-related and environmental risks may have mutually reinforcing effects. For example, a reduction in crop diversity due to rising temperatures could make agricultural ecosystems less resilient to what the future holds in regard to climate change, parasites and pathogens. At the same time, sound ecosystems promote resilience and the ability to adapt to the conditions resulting from climate change, such as higher temperatures, higher sea levels, more violent storms, less predictable rainfall and more acidic oceans. In addition, as stated in the consultation document on the new European strategy for sustainable finance, there is a link between climate risks, environmental risks and the risk of pandemics. Both supervisory authorities and financial institutions need to be aware of the potential links and mutually reinforcing effects resulting from the combination of various risks relating to climate and the environment. In order to reduce all those risks to a minimum, it is vital to ensure that the recovery which follows the current crisis is as sustainable as possible.

## **B. Non-bank financial intermediation**

The main benefit of non-bank financial intermediation lies in its role of facilitating market financing, which enables firms to raise more funds by issuing shares and bonds, or by other methods of financing. Market financing offers a valuable alternative to bank financing, but could generate systemic risks.

In Belgium, non-bank financial intermediation is relatively limited: according to the Financial Stability Board's definition, at the end of 2019 it amounted to € 144 billion, corresponding to 31 % of GDP or 14 % of the Belgian banking sector's balance sheet total. These financial assets are dominated by the subsector comprising money market funds and investment funds which cannot be regarded as equity funds (€ 129 of the € 144 billion). The second component relates to lending beyond the prudential scope of the banking sector, using short-term finance, and represents € 10 billion. This includes lending by leasing or factoring companies, and consumer loans and mortgage loans granted by financial institutions which do not form part of a banking group. However, in Belgium most of these lenders are subsidiaries of Belgian banks and therefore do not come under aggregate non-bank financial intermediation. The third and final component of non-bank financial intermediation in Belgium consists of securitised loans which have not been retained on bank balance sheets (€ 6 billion).

The Bank and the FSMA maintain close, regular monitoring of developments in the Belgian asset management sector and the non-bank financial intermediation sector. That monitoring was stepped up on account of the coronavirus crisis. At the present juncture, no significant systemic risk has been detected. The Belgian investment fund sector has stood up well to the shocks resulting from the coronavirus crisis. Overall, there have been no net withdrawals from Belgian public investment funds. While equity funds and bond funds have recorded net withdrawals, money market funds have seen net subscriptions. This picture is explained primarily by reallocations within professional investors' portfolios, notably funds of funds which invest in these funds. Consequently, investment funds which have recorded subscriptions or withdrawals on a larger scale have not faced liquidity problems, unlike certain funds in other countries which have invested mainly in illiquid assets, such as commercial property or high-yield corporate bonds. Moreover, open-end Belgian public investment funds are not allowed to invest directly in real estate.

Despite the relatively small scale of non-bank financial intermediation in Belgium and the shocks to Belgian investment funds, the risks associated with developments concerning these two activities and the links with other sectors of the economy need to be closely monitored. This includes

**Risks associated with investment funds continue to be closely monitored**

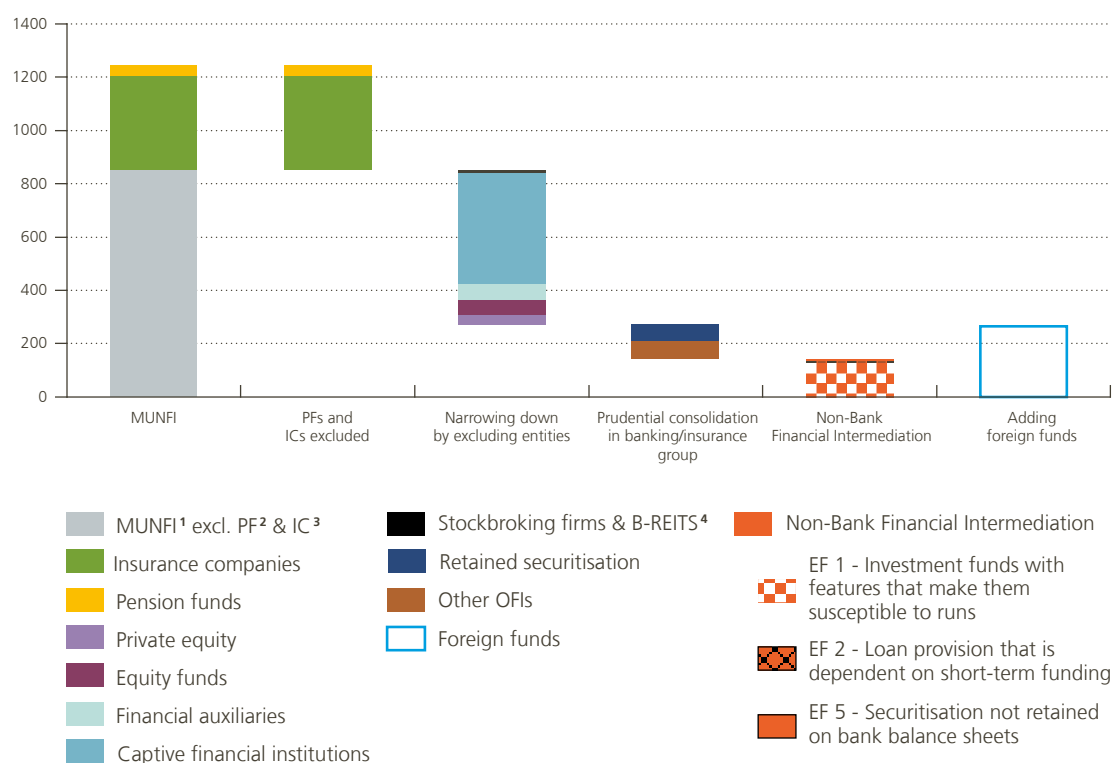
any reputational risks (step-in risks) for financial services groups offering their customers financial services via these vehicles. The management of liquidity risk in open-end investment funds, for example those offering investors a daily or weekly opportunity to redeem their investments, remain a key focus for the Belgian and European supervisory authorities, particularly in the case of funds investing heavily in assets where liquidity comes under pressure in periods of financial tension, such as commercial property or (high yield) corporate bonds.

In view of the challenges associated with the coronavirus crisis owing to the possibility of staff being unavailable on account of sickness, and the high volatility of the financial markets, the Royal Decree of 22 April 2020 introduced a series of preventive measures to protect open-end public collective investment institutions. These measures include a temporary relaxation regarding the decision to reduce the frequency of fulfilling requests for unit issuance or redemption, or a change of sub-fund, and the frequency of calculating

Chart 21

**Delineation of the Belgian non-bank financial intermediation according to the narrow FSB indicator**

(data at the end of 2019, in € billion)



Source: NBB.

1 MUNFI: Monitoring Universe of Non-bank Financial Intermediation.

2 PF: pension funds.

3 IC: insurance companies.

4 B-REITs: Belgian real estate investment trusts.

the net asset value per unit. In addition, the Royal Decree provides for the possibility of temporarily relaxing the conditions on the use of the following liquidity risk management instruments, introduced by the Royal Decree of 15 October 2018 for Belgian investment fund managers: swing pricing, anti-dilution levies and redemption gates.

Liquidity risk in the European investment fund sector also led to the publication, on 14 May 2020, of a European Systemic Risk Board Recommendation to ESMA on liquidity risks in investment funds calling on ESMA to engage jointly with the competent national supervisory authorities in a dialogue with the managers of individual funds of macroprudential importance with significant exposures to real estate or corporate debt. The ESRB also published a Communication drawing attention to the importance for fund managers of making timely and appropriate use of the available liquidity management instruments (referred to in the aforesaid Royal Decrees for Belgian funds).

## C. Cyber-risks and IT risks

### 1. Continuing rise in cyber threats and IT threats

Throughout the world, cyber-attacks have become an everyday reality in recent years. The perpetrators constantly refine their techniques and methods, and exploit changing trends and behaviour, making some of the attacks increasingly sophisticated and powerful. The current COVID-19 crisis is no exception to that rule. Various observers have seen cyber-attacks which try to take advantage of the situation, for example by means of phishing campaigns, and websites or apps which circulate various forms of malware. In addition, there is a risk that, owing to time pressure, professional parties may take emergency measures relating to COVID-19 which could compromise their cyber security, such as the ill-considered use of remote access solutions or video conferencing, or the postponement of important security assessments or patches.

The number of sustained, targeted cyber-attacks is therefore likely to remain high in the immediate future, and the financial sector logically remains one of the potential targets. Since cyber criminals are sometimes able to conceal the attack over long periods, sensitive or critical financial data can be unnoticedly stolen, deliberately made public, altered or destroyed. In addition, the effect of a (security) incident may differ slightly from its effect in normal circumstances, taking account of the heightened financial market volatility. In these circumstances it is difficult – but at the same time crucial – for financial institutions and financial infrastructures to ensure adequate protection against the various attacks for their systems, data and IT services. Despite the increase in cyber threats, there was no indication of a substantial increase in the number of cyber incidents in Belgian financial institutions during the first phase of the crisis (first half of 2020), which could indicate that most attacks related to COVID-19 are not particularly sophisticated.

Apart from cyber risks, the heavy dependence on IT solutions in the financial sector also presents other challenges. For example, the need for business continuity plans and IT recovery solutions to undergo sufficiently representative testing remains a key point for attention. In regard to the COVID-19 crisis, financial institutions and financial infrastructures seem to have been able to maintain their essential activities and the supporting IT processes. Financial institutions and financial infrastructures report that the current arrangements with a minimum number of staff on site is viable for several months. Nonetheless, they need to continue questioning, adapting and where possible testing these continuity plans, bearing in mind that this crisis and the financial market volatility could persist for a prolonged period.

*Cyber threats increase during a crisis*

There is also a substantial risk of growing dependence on third parties for IT services and for other standardised components of IT systems. It is therefore crucial for financial institutions and infrastructures to assess the extent to which third parties act in accordance with the set security and availability objectives and – especially as regards

the COVID-19 crisis – at what point the measures taken in other jurisdictions (such as lockdowns) could have negative effects. Cloud solutions are also being used increasingly often and for ever more important processes. That is contributing to the fact that, at sectoral level, a small number of critical service providers represent an ever-increasing concentration risk for the financial sector.

In the longer term, traditional institutions are also encouraged to update their sometimes very outdated IT architecture without delay, under pressure from innovative players, customers' rising expectations regarding the services offered and their availability, and the increase in security risks. Owing to the complexity of their IT set-up, it is a real challenge to achieve that goal in a well-controlled way.

## 2. Guidelines, cooperation and operational activities

The assessment and promotion of control over cyber risks and IT risks are therefore absolute priorities for the prudential supervision and oversight of financial institutions and financial market infrastructures (FMIs), with European and international cooperation gaining importance.

Thus, in recent years the Bank has made a major contribution to a European regulatory framework aimed at improving the control of cyber risks and IT risks. In 2019, that led to the EBA guidelines on outsourcing arrangements and its guidelines on ICT and security risk management. Likewise, in the case of insurance undertakings the Bank is helping to create a similar regulatory framework under the auspices of EIOPA. In regard to FMIs, the Committee on Payments and Market Infrastructures (CPMI) held a meeting of experts from the sector in December 2019 to continue shaping its strategy of reducing the risk of fraud in wholesale payments.

The Bank also takes part in various international working groups to improve its understanding of risks that could become systemic for the financial sector and to examine possible mitigating factors. For example, some working groups aim to identify dependencies and interactions between the main financial players. These working groups also analyse which IT system suppliers are used by a large number of these financial players, and ascertain the financial flows between players in different countries. Conducting these analyses in advance makes it possible to estimate more accurately the potential impact of failure in a service or technology, or the cessation of flows between financial players. These working groups also take account of current events to a large degree, in particular the COVID-19 crisis, in order to examine the additional risks that this crisis entails and the appropriate response to them.

In its role as the sectoral authority for implementation of the law on the security and protection of critical infrastructures (primarily banks and systemically important FMIs), the Bank organises and coordinates sectoral crisis simulation exercises in order to prepare the Belgian financial sector for any systemic operational incidents.

In collaboration with the SSM, horizontal analyses are regularly conducted on subjects relating to IT and cyber. For example, all banks are asked to complete a IT questionnaire on a regular basis, which provides important information for the annual Supervisory Review and Evaluation Process (SREP), and which can also be used for the purpose of horizontal analyses. A number of insurance undertakings were likewise asked to provide similar information for comparable purposes.

Since the second half of 2018, the Bank has established an ethical hacking framework, known as TIBER-BE (Threat Intelligence-Based Ethical Red Teaming Belgium). This programme is the Belgian component of a methodology devised by the Eurosystem which uses sophisticated tests as a means of increasing the cyber resilience of individual financial institutions and FMIs, and to provide important observations on the cyber security of the Belgian financial sector as a whole. TIBER-BE was further operationalised during the year under review.



Finally, in 2019 the Bank conducted a number of inspections (for banks, in the context of the SSM) in order to check on compliance with the regulatory framework and whether IT systems are adequately managed in regard to cyber risks and IT risks. The Bank also monitors these risks in financial institutions and FMIs as part of its continuous and recurring supervision activities. In that connection, it keeps a close watch on the operational security and robustness of the critical processes of financial institutions and FMIs. Since the restrictions on travel and the organisation of on-site meetings imposed by the current COVID-19 crisis could persist for some months yet, it will be necessary to adapt the supervision activities to the new method of working so that the supervisory authorities maintain a sufficiently clear view of the risks to institutions and infrastructures.

## Conclusions and recommendations

The COVID-19 pandemic and the extraordinary measures adopted worldwide to limit its intensity and spread are having an unprecedented impact on many countries, including Belgium. The resulting economic crisis is without precedent: throughout the world, economic activity witnessed an unparalleled slowdown during the first half of 2020, and there has been a steep rise in (temporary) unemployment, while the great uncertainty on the international financial markets regarding the duration of the crisis initially led to major downward price corrections, high demand for liquid assets (flight to safety) and a sharp rise in premiums and premium differentiation for country risk and credit risk. The Belgian economy is no exception and is also suffering from this crisis inter alia on account of the necessary confinement restrictions (lockdown).

National and international policy makers are endeavouring to support the economy to weather the crisis and to limit the structural damage, and are taking proactive measures to prepare for the future restart that will put the economy back on track. In this connection, a decisive, coordinated policy is essential. Initially, the emphasis was placed on resolving liquidity issues – both for the real economy and on the money markets – via unprecedented support on the part of budgetary and fiscal policy and by reinforcement and expansion of the ECB liquidity safety net. Supplementary measures, including a series of recent fiscal support measures, aim to limit the risk of any liquidity problems turning into widespread solvency problems.

The prudential authorities – both the regulators and the supervisors – are supporting this active budgetary policy and accommodative monetary policy by creating sufficient leeway for the financial sector, and particularly the banking sector, to enable it to continue performing its financial intermediation role, by limiting the procyclicality which is inherent in the financial system, and by safeguarding lending. In contrast to the financial crisis, when the international banking sector had actually been a catalyst, this time the banking sector is an important lever for resolving the crisis. The Belgian banks, which have considerably strengthened their liquidity and solvency position since the financial crisis, are moreover in a favourable starting position, both as regards their ability to absorb the expected future loan losses and for granting additional loans to support the real economy.

That is also the appropriate angle for viewing the fundamental shift in the Bank's macroprudential policy in the first quarter of 2020. While the pre-crisis macroprudential policy aimed to enhance the Belgian banking sector's resilience and limit the continuing build-up of real estate risks, notably by activating the countercyclical capital buffer (CCyB), publishing the prudential expectations concerning new mortgage loans and extending the specific macroprudential buffers for real estate risks, the policy adopted since the outbreak of the COVID-19 crisis is, as in most other EU countries, centred primarily on the gradual and responsible release of a range of macroprudential capital buffers, such as the CCyB, and limiting the potential procyclicality.

In addition, as the macroprudential authority, the Bank recognises the importance of pursuing an active and supportive macroprudential policy in the immediate future. In that context, the Bank would first highlight that – in view of the latest scenarios and projections – the March 2020 deactivation of the countercyclical capital buffer will probably be extended until at least mid-2021. As long as macroprudential policy remains in release mode, the Bank will be cautious in its interpretation of the standard credit cycle indicators. In particular, it will take account of the procyclical tendencies in the credit gap indicator in times of crisis, acknowledging that

this indicator can send biased signals of an acceleration in the credit cycle in response to a significant fall in GDP. Throughout the capital release phase, those signals must be placed in context.

*The Bank sets out forward guidance for its macroprudential policy, in support of the real economy*

The Bank is also keeping a close watch on developments on the Belgian real estate and credit markets. This monitoring is essential in the current circumstances, in view of a number of vulnerabilities on those markets, such as the high debt level of Belgian households, the (slight) overvaluation of the real estate market, and the substantial exposure of Belgian banks to those assets. Although there are at present no signs of a significant increase in the imbalances or tensions

on the real estate market, the Bank stands ready to release the macroprudential capital buffers created for real estate risks (on the basis of Article 458 of the CRR) if those risks were to materialise and lead to a substantial rise in non-performing loans, or if further developments on those markets were to exert long-term pressure on banks' profitability.

This report's analysis shows that the release of macroprudential buffers for systemically important institutions (O-SII buffers) could – even just on account of their size (over € 5 billion for Belgian O-SIIs) – significantly reduce the capital requirements and thus provide key support for the supply of credit. Although these buffers are primarily structural, releasing them is possible in principle (e.g. by temporary suspension of classification as a systemically important institution, or by the reduction or deactivation of the O-SII buffer requirement). However, that release must be coordinated with the national and international (macro)prudential institutions concerned, and must be viewed as the ultimate macroprudential tool for reinforcing the banks' solvency position if need be.

Finally, it is very important that the financial sector itself continues to perform its financial intermediation role and actively contributes to cushioning the impact of the crisis and supporting the real economy. In that context, in accordance with the communications by the SSM, the EBA, the ESRB and the European Commission, the Bank is addressing a series of recommendations to the financial sector, and to credit institutions in particular. The first one aims to encourage maximum, responsible use of the micro- and macroprudential buffers to support the real economy. Here it should be pointed out that the use of these buffers by individual banks is justified from a macroprudential perspective and supports the real economy by averting procyclical credit tightening. Any reticence on the part of individual banks to use these buffers – e.g., owing to stigma effects or as a precaution against potential future solvency problems – could be counter-productive in the context of this crisis and could considerably increase the impact of the crisis on the real economy. Moreover, in the context of the unprecedented micro- and macroprudential easing and of substantial uncertainty regarding the future profitability of financial institutions, the Bank as the macroprudential authority also advises the financial sector – and in particular banks and insurers – to demonstrate the necessary restraint for a time in regard to their current and future policy on dividend distributions (and similar operations) and the allocation of variable remuneration to senior management, and – in accordance with the communication by the SSM and EIOPA, to refrain from paying out dividends or conducting similar operations until at least the beginning of October 2020. In regard to credit institutions, this recommendation applies to all banks operating in Belgium and to all dividend payments and/or transfers or similar transactions within international banking groups by systemically important subsidiaries operating in Belgium. Finally, in addition to the necessary attention to the short-term implications of the COVID-19 crisis, the financial sector must remain aware of the major structural challenges in the longer term. For instance, the persistence of a low interest rate environment remains a serious structural challenge for banks' profitability, and there is a need to reassess the viability of certain business models. In addition, the transition to a more sustainable and digital economy will gain traction, and it is essential not only to exploit the opportunities offered by such transitions, but also to monitor closely and mitigate the inherent risks that these structural transitions inevitably imply, for example in regard to financial stability.

*The financial sector must make an active contribution towards cushioning the impact of the crisis*



# Financial Stability Overview

## 1. Banking sector

### 1.1 Banks can and need to deploy their balance sheet capacity to support the real economy

#### *Belgian banks' post-crisis business models refocused on traditional lending activities ...*

In the aftermath of the economic and financial crisis of 2008-2009, Belgian banks undertook a wide-ranging transformation of their business models, essentially by refocusing on their core geographical markets and traditional banking intermediation activities (transforming deposits into loans in Belgium and in some foreign home markets). Throughout the large-scale deleveraging and de-risking that followed, the Belgian banking sector never ceased to play its important role of intermediation for the Belgian economy. Hence, as can be observed in the left-hand panel of Chart 1, loans to Belgian counterparties continued to grow in the years after the 2008-2009 crisis, whereas non-core assets and business with foreign counterparties were significantly reduced. This transformation of the business models was also reflected in the rebalancing of funding on the liability side towards a higher share of retail deposits at the expense of wholesale funding, relative to the situation seen prior to the global financial crisis. More details on this post-crisis restructuring and its implications for banks' balance sheets can be found in previous editions of this Overview article.

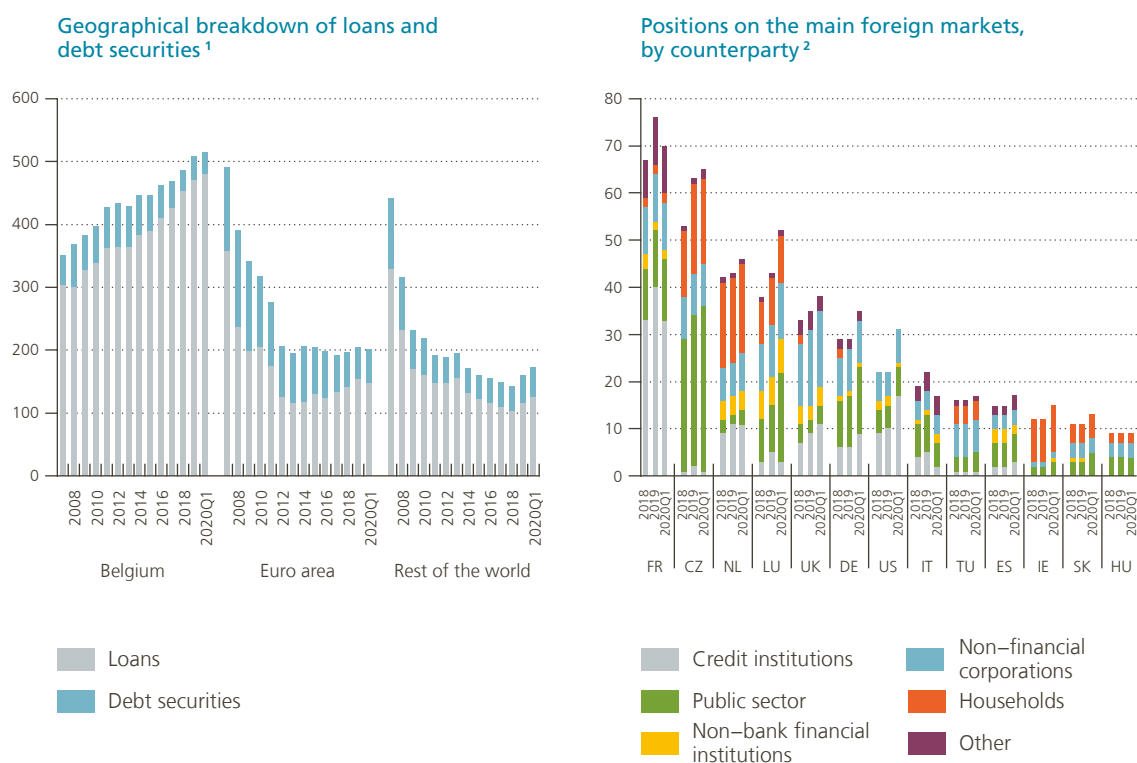
The strong expansion in loans granted to Belgian households and non-financial corporations took place at a time when the very low interest rate environment created new opportunities and incentives to fuel the real economy with credit. Households' and companies' rising demand for credit – on the back of falling lending rates – was matched by an increased supply as banks tried to offset the negative impact of the low interest rate environment on their net interest margin (defined as the spread between the average interest rate earned on interest-bearing assets and paid on liabilities). This higher supply and demand of loans resulted in a continuously strong growth of bank credit in recent years, reaching 4.1 % for Belgian non-financial corporations and 6.1 % for Belgian households at the end of 2019 (section III.C.3.1 of the Macroprudential Report (MPR) provides more details on these domestic credit developments and the decision to activate the macroprudential countercyclical capital buffer as from 1 July 2019).

Belgian banks also continued to expand their traditional maturity transformation activities in a number of foreign core markets where they operate mainly through local subsidiaries with or without ample domestic funding in the form of deposits. The right-hand panel of Chart 1 documents the size and composition of these assets. They cover positions in the so-called home markets abroad – such as the Czech Republic, the Netherlands, Luxembourg, Turkey, Ireland, Slovakia or Hungary – as well as other (cross-border) claims on foreign counterparties (mainly located in European countries and the US). Over the course of 2019, total lending to the foreign private sector increased by € 9 billion, partly also related to foreign acquisitions by Belgian banks, lifting the stock of these loans to € 169 billion, of which € 73 billion are guaranteed by real estate. This foreign lending is largely provided by local subsidiaries of Belgian banks and is, for some part,

Chart 1

## Geographical and sectoral breakdown of loans and debt securities held by Belgian banks

(consolidated data, in € billion)



Source: NBB.

1 Gross carrying amounts, excluding exposures to central banks.

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

financed with excess deposit funding collected in the Belgian market that is subsequently transferred to foreign home markets through intragroup transactions (see below and Chart 5 for further details).

### ... and the Bank took macroprudential measures to avoid related financial stability risks

The activation of the countercyclical capital buffer (CCyB) in 2019 in response to the accelerating credit cycle was complemented by another macroprudential measure focused on the credit standards applied in new mortgage lending. This decision was triggered by the observed new weakening of credit standards and loan pricing discipline due to high competition in the domestic mortgage loan market. This intensified competition for loans also led to lower loan margins and risk-insensitive loan pricing by banks, magnifying concerns over the long-term profitability of the growing mortgage loan portfolios, potential under-pricing of risks and implicit subsidies to risk-taking by mortgage debtors. The Bank, in its capacity as Belgian macroprudential authority, therefore decided to complement the existing capital-based macroprudential measure for Belgian mortgage loans – targeting the stock of loans and banks using internal rating models to calculate the minimum capital requirements – with so-called borrower-based macroprudential supervisory expectations for all Belgian mortgage lenders, applicable as from 2020 (see the MPR section III.C.3.2 and the thematic article on the residential real estate market for more details and background information). This new macroprudential measure aims to prevent a further build-up of risks in the stock of mortgage loans already covered by the previous macroprudential measure (the internal risk weight measure was

first introduced in 2013, then extended under Article 458 of the Capital Requirements Regulation and reinforced in 2018 with a second component). In addition, loan pricing became an important and explicit point of attention in the Bank's surveillance of mortgage lending risks and related dialogues with banks.

***The coronavirus crisis amounts to a regime change, with a key role for banks and policy to support many households and non-financial corporations in need of temporary liquidity support***

Bank credit plays an important role in mitigating temporary liquidity pressures in the private sector and, doing so, in preventing unmitigated liquidity problems from turning eventually into widespread solvency problems and credit losses. It is indeed an important transmission channel for the wide-ranging measures taken by the public sector to support households and non-financial corporations experiencing liquidity pressures due to the coronavirus crisis (because of mandatory business closures or reduced levels of economic activity more generally).

Given this crucial role for banks and bank credit, the economic and financial consequences of the coronavirus crisis triggered a major switch in the Bank's macroprudential policy stance towards decisions that should help to limit and mitigate the fall-out (see MPR section III). This explains the decision in March to release the CCyB so that the freed-up capital buffers can be used to support additional new lending and absorb any potential loan losses on the existing stock, so as to preserve and ensure banks' critical financial intermediation function for the real economy. In order to further support and safeguard lending to viable Belgian households and companies going forward, the federal government has – with the support of the Bank – also drawn up an agreement with the financial sector that consists of two pillars: the possibility to request a temporary moratorium for the debt service of household mortgage loans and corporate loans under certain conditions and the activation of a guarantee scheme for new loans and credit lines granted to viable non-financial businesses and the self-employed with a maximum duration of 12 months (see MPR Box 1 for more details). An initial assessment of the impact of this guarantee system has shown that it must be extended and supplemented by a new system guaranteeing longer-term loans. These national measures complement and flank the efforts of the European Central Bank (ECB) to mitigate as much as possible the liquidity shocks that large segments of the real economy experienced as a result of the coronavirus crisis. The ECB measures that will provide additional liquidity to the euro area banking sectors in order to support lending and economic activity include the Pandemic Emergency Purchase Programme (PEPP), a decline in TLTRO lending rates and new Pandemic Emergency Targeted Longer-Term Refinancing Operations (PELTROs).

The first four months of 2020 were characterised by a sudden acceleration of the annual rate of growth of bank credit to non-financial corporations, from 4.0 % at the end of February to 6.6 % in March and April. This acceleration in the increase of loans to Belgian non-financial corporations, equal to a cumulative € 7.5 billion since the end of 2019, was mainly driven by an increase in short-term loans to multinational firms (in particular through drawings on existing credit lines) and to a lesser extent to temporary loans for advance payments on taxes as well as a long-term loan to one individual firm financing the acquisition of another corporation. In March and April, Belgian non-financial corporations drew € 2.4 billion on existing credit lines agreed with Belgian banks (leaving € 47.3 billion of available drawing rights). Most of this new lending took place outside the new facility of bank loans with the federal state guarantee, which entered into force in April. At the same time, many eligible corporations made use of the possibility to request a temporary moratorium on debt service payments under the conditions foreseen in the charter of the banking sector.

For Belgian households, annual credit growth decelerated slightly, from 6.1 % at the end of 2019 to 4.8 % at the end of April. The significant increase at the end of 2019 was due to the high volumes of mortgage loans in anticipation of the phase-out of income tax deductibility of the mortgage loan payments in the Flanders region as of 2020. A reduction of new lending in the first months of 2020 was thus expected and, indeed, after almost continuous monthly growth in recent years, the total outstanding amount of credit to Belgian households stabilised in the first four months of 2020 at around € 248 billion. As the lockdown measures restricted the number of new housing transactions in March, April and May, mortgage lending growth will probably further slow down in the first half of the year, before potentially picking up again in the second half of the year. For existing mortgage loans, a significant number of households made use of the possibility to request a moratorium on debt service.

In order to minimise the impact of the coronavirus crisis on the economic fabric and to maximise the speed and strength of the economic recovery, it is important that the temporary liquidity problems in the corporate sector do not morph into solvency issues and a subsequent credit risk crisis in the banking sector. The various corporate sectors making up the economic fabric were affected to wide-ranging degrees by the measures taken to contain the spreading of the coronavirus. The corporate sectors which have seen the largest losses in sales – i.e. declines between 40 % and 90 % – in the weeks since the virus outbreak were the accommodation and food service activities, entertainment, construction and wholesale and retail trade. As shown in Table 1, the Belgian banking sector had, at the end of 2019, outstanding loans to companies in these sectors for an amount of € 79 billion, of which € 49 billion was to Belgian companies. These amounts by corporate sector remained quite stable during the first quarter of 2020. Other companies which were heavily affected (with sales losses between 20 % and 40 %) were those within the sectors of transportation and storage, administration and support service activities, professional/scientific/technical activities, real estate activities and manufacturing.

With the support of the various measures put in place by policymakers and by deploying their balance sheet capacity and using their capital and liquidity resources, banks can help the viable non-financial corporations in these corporate sectors to overcome the unprecedented shocks related to the coronavirus crisis. This is also the explicit goal of the policy actions taken by micro- and macroprudential supervisors, as they released

**Table 1**

**Breakdown of loans to non-financial corporations by corporate sector and reported impact of the coronavirus crisis on sales volumes in the weeks following the lockdown<sup>1</sup>**

(consolidated data, at the end of 2019, gross carrying amounts, in € billion)

	Total	Belgian NFCs	Foreign NFCs
Loans and advances to non-financial corporations	258.7	159.1	99.7
of which:			
Wholesale and retail trade	47.4	26.0	21.4
Manufacturing	37.8	18.2	19.6
Real estate activities	33.7	25.8	7.8
Construction	25.5	18.4	7.1
Professional, scientific and technical activities	18.7	15.8	2.9
Transport and storage	14.9	7.9	7.1
Human health services and social work activities	14.9	13.6	1.3
Agriculture, forestry and fishing	11.0	3.4	7.6
Administrative and support service activities	11.0	6.9	4.1
Electricity, gas, steam and air conditioning supply	10.3	4.6	5.7
Other services	7.6	3.3	4.3
Information and communication	7.1	3.2	3.9
Financial and insurance activities	5.0	3.2	1.8
Accommodation and food service activities	4.3	3.0	1.3
Water supply	2.8	1.9	0.8
Mining and quarrying	2.4	0.3	2.1
Arts, entertainment and recreation	1.9	1.4	0.5
Public administration and defence, compulsory social security	1.8	1.7	0.1
Education	0.6	0.4	0.2

Source: NBB.

<sup>1</sup> Sectors in orange reported a loss of sales volume between 40 % and 90 % in the weeks following the lockdown measures. Sectors in blue reported a loss of sales volumes between 20 % and 40 %.



capital and liquidity buffers in the banking system. The use of these buffers is entirely justified and encouraged from a macroprudential point of view in order to avoid a procyclical tightening of credit conditions. Especially in the context of this crisis, failing to do so as a result of initial hesitation by individual banks could be a counterproductive strategy that magnifies the size and duration of the economic downturn and further weakens the solvency of banks' debtors, ultimately returning to the banking system in the form of higher credit losses.

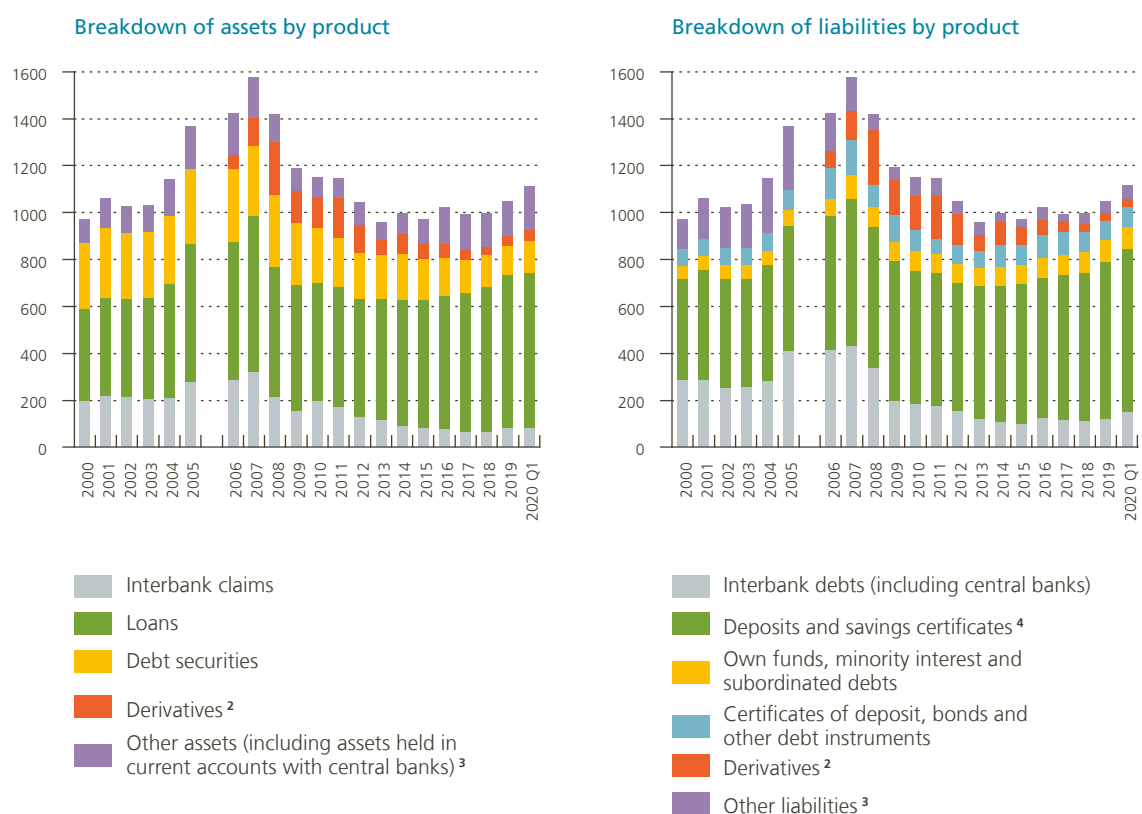
***Banks' balance sheets provide sufficient room to ensure the critical credit support to the real economy, given ...***

The focus on traditional lending and maturity transformation activities and the prolonged low interest rate environment resulted in significant changes in the composition of Belgian banks' balance sheets in recent years. They nevertheless provide sufficient room to accommodate the required credit support for the real economy, in line with the message of micro- and macroprudential supervisors that available capital and liquidity buffers are there to be used in these exceptional circumstances.

## Chart 2

### Balance sheet structure<sup>1</sup>

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



Source: NBB.

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

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

<sup>3</sup> “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.

<sup>4</sup> 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”.

The gradual reduction in the holdings of government bonds and the parallel increase in loans to the private sector on the asset side were fostered by favourable economic conditions – sharpening borrowers’ appetite for lending –, expansionary monetary policies and banks’ general eagerness to increase lending activities. Banks showed a particularly strong focus on real estate lending and privileged the expansion of loan volumes over increasing commercial margins on new loans as the best way to support revenues, leading to high competition on lending markets and a renewed easing of credit and loan pricing standards. The announcement that income tax deductibility for mortgage loan payments in the Flanders region would be phased out as of 2020 gave an extra boost to mortgage lending at the end of 2019.

After two years of stabilisation or slight decrease, banks’ total assets significantly increased from € 993 billion in 2018 to € 1048 billion during 2019 on a consolidated basis. This increase was accompanied by a continuation of the above-mentioned underlying changes in the composition of assets (Chart 2).

Preliminary data for the first and second quarter of 2020 show that the further rise in Belgian banks’ total balance sheet since the outbreak of the coronavirus crisis was mainly driven by increased cash balances at the central bank and an increase in the outstanding amount of loans to Belgian counterparties, mostly to non-financial corporates and Belgian public administrations.

In the five years up to the end of 2019, lending to households and non-financial corporations increased by € 111 billion and now amounts to 55 % of total banking assets (46 % at the end of 2014). This increase of € 111 billion in credit relates for 80 % to the domestic market and 10 % to other euro area countries. The holdings of debt securities (both government bonds and non-government bonds) decreased since the end of 2014 by € 66 billion to € 129 billion.

**Chart 3**

### Belgian banks’ bond portfolio

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



Source: NBB.

In 2019, the government bond portfolio stabilised around € 80 billion while in the first quarter of 2020 a slight increase of these investments took place, with holdings of government bonds rising to € 83 billion. The search for higher returns in debt securities portfolios has nevertheless been a clear trend since 2014. The past few years have seen banks sharply cut their investment in euro area government bonds, in part because of the Eurosystem's asset purchase programs. They sold a proportion of their debt instruments to lock in gains, while also not rolling over all the bonds that matured, as these are increasingly trading at negative rates. While the portfolios still contained € 116 billion in government bonds from the euro area countries at the end of 2014, this decreased further in 2019 by € 4 billion to € 64 billion. In particular, holdings of Belgian government bonds fell, reaching € 30 billion at the end of 2019. As shown in Chart 3, debt securities issued by top-rated countries (minimum AA rating) represented only 62 % of total government bonds held at the end of 2019, compared to 75 % at the end of 2014 (left-hand panel of Chart 3).

The portfolio of non-government debt securities amounted to € 44 billion at the end of 2019, remaining stable in the last five years while being subject to a geographical shift. At the end of 2019, slightly more than half of the portfolio of non-government securities consisted of non-European bonds, while this was only 35 % at the end of 2014. The share of non-government debt securities issued by euro area counterparties decreased from 60 % to 42 % over the same period while the share of Belgian non-government debt remained constant around 6 % or € 2.7 billion. Of the total € 44 billion, € 25 billion is invested in debt securities from credit institutions, € 10 billion in bonds of non-financial corporations and € 9 billion in bonds issued by non-bank financial corporations (right-hand panel of Chart 3).

### ***... the ample cash balances at central banks, ...***

After significant fluctuations over the previous couple of years, cash balances at central banks fluctuated within a more or less stable range between the end of 2018 and 2019 (between € 50 and € 70 billion). These deposits are a very volatile component of the balance sheet for which significant changes may be observed from one month to another, depending on banks' cash management strategies, the rates offered by central banks relative to those on the interbank market and Belgian banks' repo activity. A bank's cash management strategy is often decided at group level, so that the geography of central bank deposits may vary, and may also involve deposits at non-euro area central banks that still offer a positive rate (although placing liquidity there could imply a foreign exchange risk if it is not hedged). The decline in deposits at central banks in the last quarter of 2019 largely reflected a decline in the liquidity received in the context of repo activities with financial institutions. The opposite effect can be noticed in the first quarter of 2020 with a renewed accumulation of cash balances at the central bank.

Disregarding seasonal patterns, the large and still growing amount of central bank deposits in the years up to the end of 2019 can be seen as a sign of Belgian banks' excess liquidity, in line with the ample liquidity available in the market. With cash amounts placed at central banks accounting for around 7 % of assets, banks continued to enjoy a comfortable liquidity position before the start of the coronavirus crisis, stemming mainly from the use of TLTRO-financing and, even more, the large and increasing deposits from their clients.

### ***... the available liquidity buffers and supervisors' message that they can (should) be used, ...***

The liquidity coverage ratio (LCR) is defined as the ratio between the stock of high-quality liquid assets (HQLA) – representing the unencumbered assets that can be converted into cash on private markets in times of severe liquidity stress (such as central bank reserves and government bonds) – and the net cash outflows in a 30-day stress scenario (e.g. from collateral and deposits). At the end of 2019, the Belgian banking sector's LCR amounted to 141 %, up from 137 % at the end of 2017 (Table B3 in the annex). This was comfortably above the 100 % requirement but lower than in many other euro area countries. During the first months of 2020, the conditions on a number of key bank funding markets deteriorated as investors started to factor in the financial and economic effects of the coronavirus pandemic and the measures required to contain it. As a result, the LCR ratio decreased to 134 % by the end of the first quarter of 2020, which nevertheless remains

a comfortable level. Thanks to the central banks' intervention, the liquidity conditions remained relatively calm, although term funding markets are not fully operational yet at the beginning of the second quarter of 2020, and financing conditions remain relatively expensive. At the beginning of the second quarter of 2020, liquidity buffers improved again and the LCR ratio recovered to 140 %.

The tightening of financing conditions for Belgian and other banks on the wholesale funding markets in Europe and the US occurred at the same time as increased demand for liquidity support from banks' clients. On the one hand, as already commented above, corporate clients drew on available margins in existing credit lines. For many households and non-financial corporations heavily affected by the lockdown measures (leading to mandatory business closures, temporary unemployment for furloughed staff, etc. ...), the temporary cash-flow problems required solutions in the form of temporary debt repayment stops (moratoria) or additional credit in order to bridge the period until the return to more normal business activities. Banks were thus confronted with additional requests for liquidity in the weeks that followed the introduction of the lockdown, whether or not in the framework of the above-mentioned measures agreed between the federal government and the Belgian financial sector regarding debt moratoria and state guarantees for eligible new loans to viable firms.

The stabilisation of the LCR at comfortable levels during this period of sharply increased demand for liquidity from clients is the reflection of a number of factors. In the short term, the main factor was the use of the additional possibilities created by the ECB for banks to fund themselves with central bank funding in order to deal with the liquidity shock in the real economy. More fundamentally, the good performance of the LCR is above all testimony to the structurally strong and stable funding base of the Belgian banking sector, characterised by a high share of retail deposits and a low reliance on wholesale funding to finance key intermediation activities, as evidenced in particular by the loan-to-deposit ratio.

#### ***... the ample liquidity (to be) provided by the European Central Bank, ...***

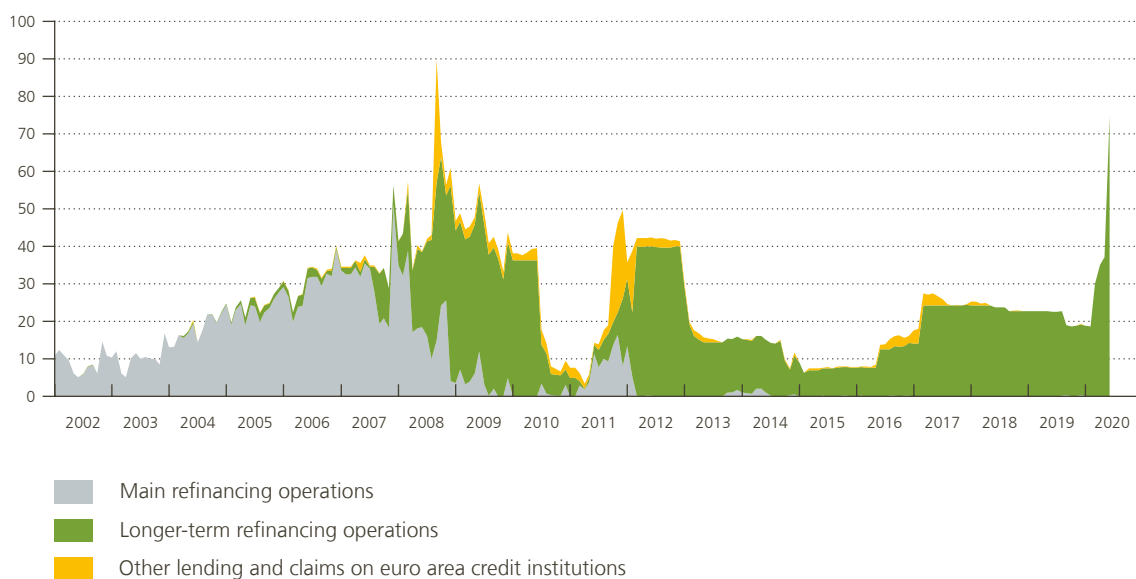
The TLTRO auctions enable banks to lock in stable, long-term funding at a moderate cost. Under the TLTRO programme, the ECB offers banks collateral-backed long-term central bank funding at a low interest rate. Banks are offered a strong incentive to increase lending to firms and households because such lending – if above a certain threshold and with the exception of mortgage lending – leads to lower TLTRO interest rates. The new series of TLTRO operations could thus be used by banks to fund increases in their balance sheet and expand lending to the private sector, in particular to firms. As the issued loans can be part of the central bank collateral pool, the impact on the LCR ratio can be mitigated to a very large extent. In April 2020 the ECB moreover announced further steps to mitigate the impact of possible rating downgrades on collateral availability and decided to grandfather the eligibility of marketable assets and the issuers of such assets to a certain extent.

To date, Belgian banks are making significant use of central bank funding (Chart 4). At the end of 2019, the Bank was providing € 19 billion of central bank funding, which chiefly comprises amounts borrowed by Belgian banks under the Eurosystem's targeted longer-term refinancing operations programme (TLTROs). In April 2020, the ECB lowered the interest rates on all TLTROs and added the new Pandemic Emergency Longer-Term Refinancing Operations (PELTROs) which will provide ample liquidity support to the euro area financial system and contribute to preserving the smooth functioning of money markets by providing an effective backstop beyond the expiry of the longer-term refinancing operations (LTROs) that have been conducted since March 2020. Counterparties participating in PELTROs will be able to benefit from the collateral easing measures in place. Following these favourable conditions, the amount of central bank funding provided by the Bank has increased to more than € 70 billion in June.

Chart 4

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

(non-consolidated data, in € billion)



Source: NBB.

### ... and the low reliance on wholesale financing for maturity transformation activities

Belgian banks' deposits from the private sector increased by €36 billion to €564 billion last year, of which €415 billion stems from households and €149 billion from non-financial corporations (a complete overview of the funding structure is available in Table B3 in the annex). Interbank funding and funding by other financial institutions (central banks excepted) amounted to €179 billion at the end of 2019. While the share of deposits from the private sector increased since 2016 from 49% of total liabilities to 54%, the share of wholesale deposits remained stable at around 17%. Funding through debt securities is much smaller than deposit funding and represented only 9% of the balance sheet at the end of 2019. The total amount of debt securities issued decreased for a second year in a row to €91 billion from €98 billion in 2018 and €106 billion in 2017. In contrast to 2018, the outstanding amount of covered bonds dropped again, reaching €26 billion at the end of the year. Banks increased their reliance on deposit certificates by €10 billion to an outstanding amount of €40 billion. This increase was counterbalanced by a significant decrease in other debt securities issued from €40 billion in 2018 to €28 billion in 2019.

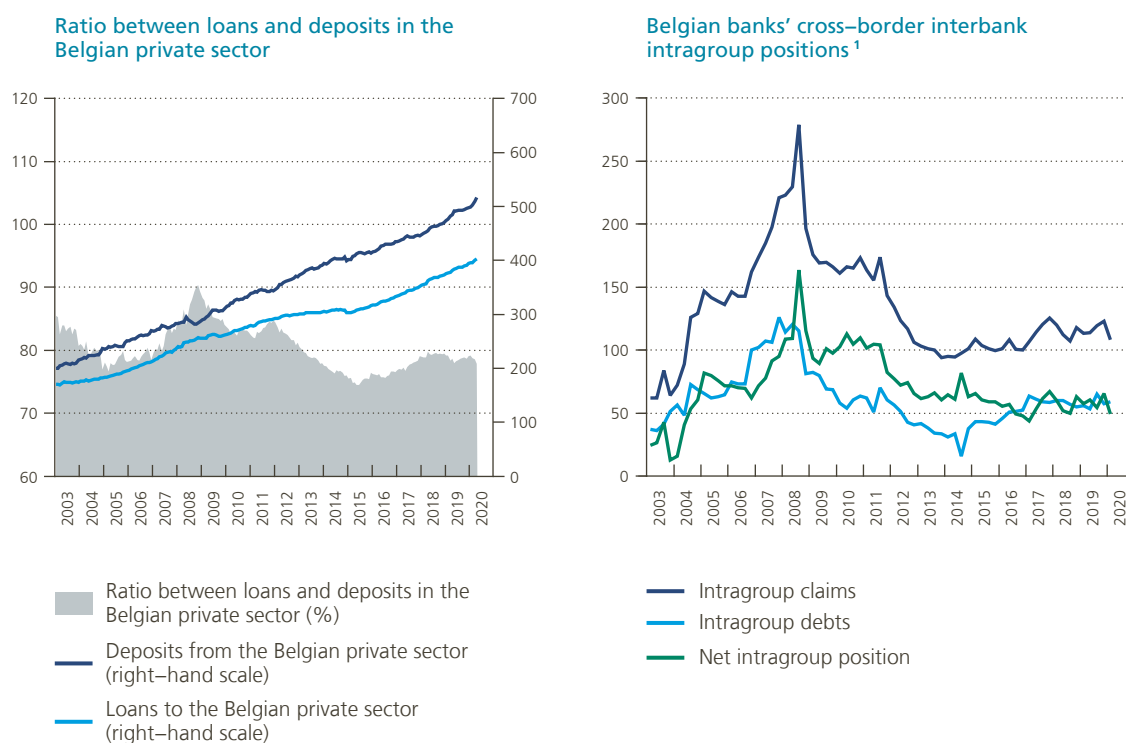
Given that, all in all, deposits have increased to a larger extent than loans, Belgian banks' customer loan-to-deposit ratio has declined to 95.9% at the end of 2019, compared with 97.5% in 2018 (Table B3 in section 3.1). The left-hand panel of Chart 5 zooms in on the loan-to-deposit ratio in transactions with Belgian private sector clients (79% at the end of 2019) and the way in which the related excess of deposits over loans (equal to €104 billion) allows Belgian banks to continue to fund a large amount of intragroup financing.

The right-hand panel of Chart 5 looks more closely at the scale of this intragroup financing, using data compiled on a territorial basis, whereby intragroup flows between banking entities located in Belgium and those based abroad are distinguished from non-intragroup interbank transactions. The data reveal that Belgian banking entities are, on aggregate, still large net providers of liquidity to other entities of the banking group

Chart 5

### Ratio between loans and deposits in the Belgian private sector, and Belgian banks' cross-border interbank intragroup positions

(territorial data, in € billion, unless otherwise stated)



Source: NBB.

<sup>1</sup> The aggregates are corrected for transactions related to custody business activities.

to which they belong, as they provide significantly more intragroup financing than they receive, albeit on a much smaller scale than in 2007 and 2008. Intragroup interbank claims increased by € 5 billion in 2019 to € 123 billion while intragroup interbank debts increased by € 3 billion to € 57 billion over the same period. As a result, the net financing gap amounted to € 65 billion, slightly higher than last year. In the first months of 2020, the net financing gap dropped to € 49 billion as intragroup interbank claims decreased significantly to € 108 billion.

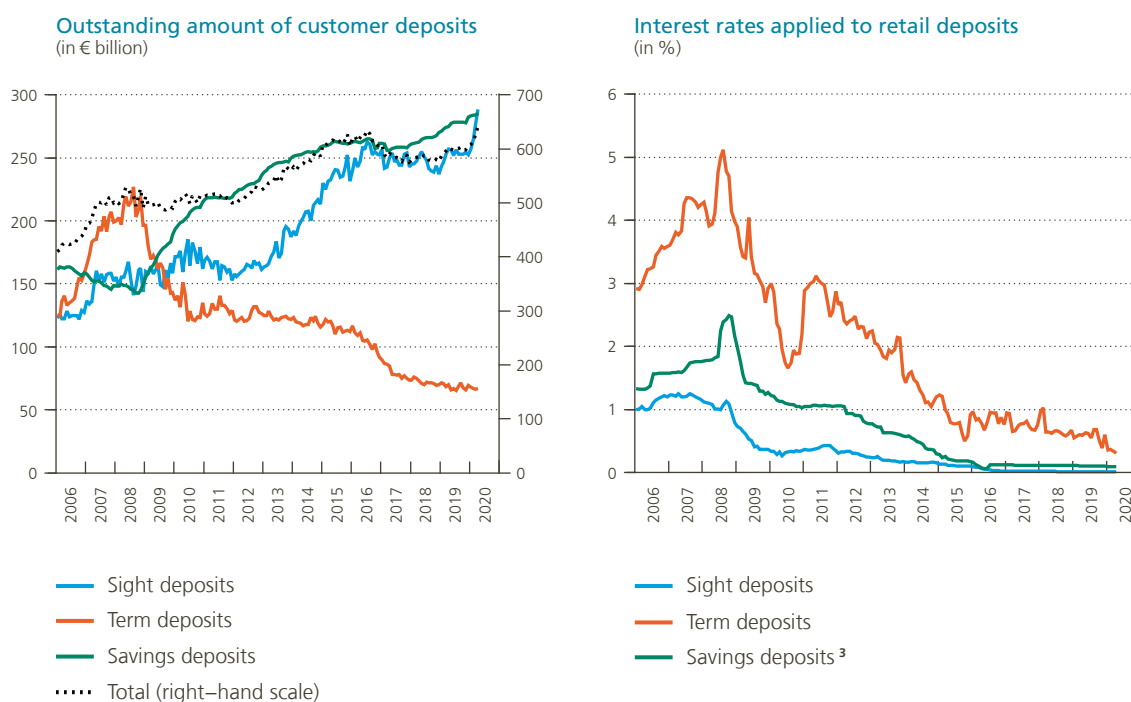
Chart 6 presents the development in the stock of Belgian customer deposits. The amount of sight deposits increased from € 237 billion to € 252 billion in 2019. The growth tendency was continued through the first four months of 2020 as sight deposits further increased to € 288 billion in April 2020. The amount of savings deposits increased by € 12 billion in 2019 to € 282 billion and remained flat in the first four months of 2020. Finally, term deposits stabilised slightly lower than € 70 billion during 2019 and the beginning of 2020.

In the weeks and months following the implementation of the measures to contain the spreading of the coronavirus, the increase in demand deposits of both households and non-financial corporations continued at a significantly more rapid pace than before. This could be seen as a signal of so-called “forced saving” by households during the lockdown period and the build-up of precautionary cash balances by non-financial corporations, given the uncertainty over potential future liquidity needs. The increase in interbank debts also continued its trend during the first months of 2020. Banks already made increasing use of LTRO financing to

Chart 6

## Stock of Belgian customer deposits<sup>1</sup> and interest rates applied to retail deposits<sup>2</sup>

(unconsolidated end-of-period data)



Source: NBB.

1 Customers deposits include deposits to households, non-financial corporations, governments and financial corporations other than banks.

2 Data from the monthly MIR survey in the case of new deposits of households. Deposits for a term of more than two years in the case of term deposits.

3 Before 01/07/2016, the rate only included the basis rate. From 01/07/2016, it also includes premia (like fidelity or growth premia) if the deposits fulfill the conditions to have them.

bolster their funding position, even though their liquidity position is robust. As there is room for the balance sheet to increase, Belgian banks have used the favourable TLTRO financing conditions in June 2020 (up to –100 basis points if they sufficiently increase their lending to the real economy) to further increase their take-up of ECB financing in order to fund positions with a positive contribution to their net interest income.

## 1.2 Credit losses and non-performing loans could rise strongly, albeit from low starting levels

### *The coronavirus crisis will lead to higher credit risk provisions, losses and increased NPLs ...*

The direct and indirect effects of the measures implemented to contain the coronavirus pandemic resulted in a large, unprecedented negative shock to the global, European and Belgian economies and point to a likely drawn-out recovery to the levels of activity registered before the crisis. In these conditions, credit losses and non-performing loans are set to rise, potentially significantly, in the quarters ahead, but it is very difficult at this stage to assess with any reasonable degree of confidence the depth and length of the recession, the shape of the economy's recovery path and, related to this, the impact on the credit quality and related impairments of Belgian banks' assets. Yet it is certain that the impacts will be significant, as GDP is generally expected to decline

by 7.5 % or more in 2020. Sensitivity analyses and previous stress test exercises provide some comfort around the resources that are available to Belgian banks to deal with a significant increase in credit losses and counterparty credit risk deterioration (which will be further detailed in related subsections below). This section focuses on the starting point in terms of credit losses and non-performing loans on the eve of the outbreak of the coronavirus crisis, also broken down by (corporate) sector.

**... reversing the improved asset quality and low loan losses seen in recent years, especially in the loans to certain highly affected corporate sectors**

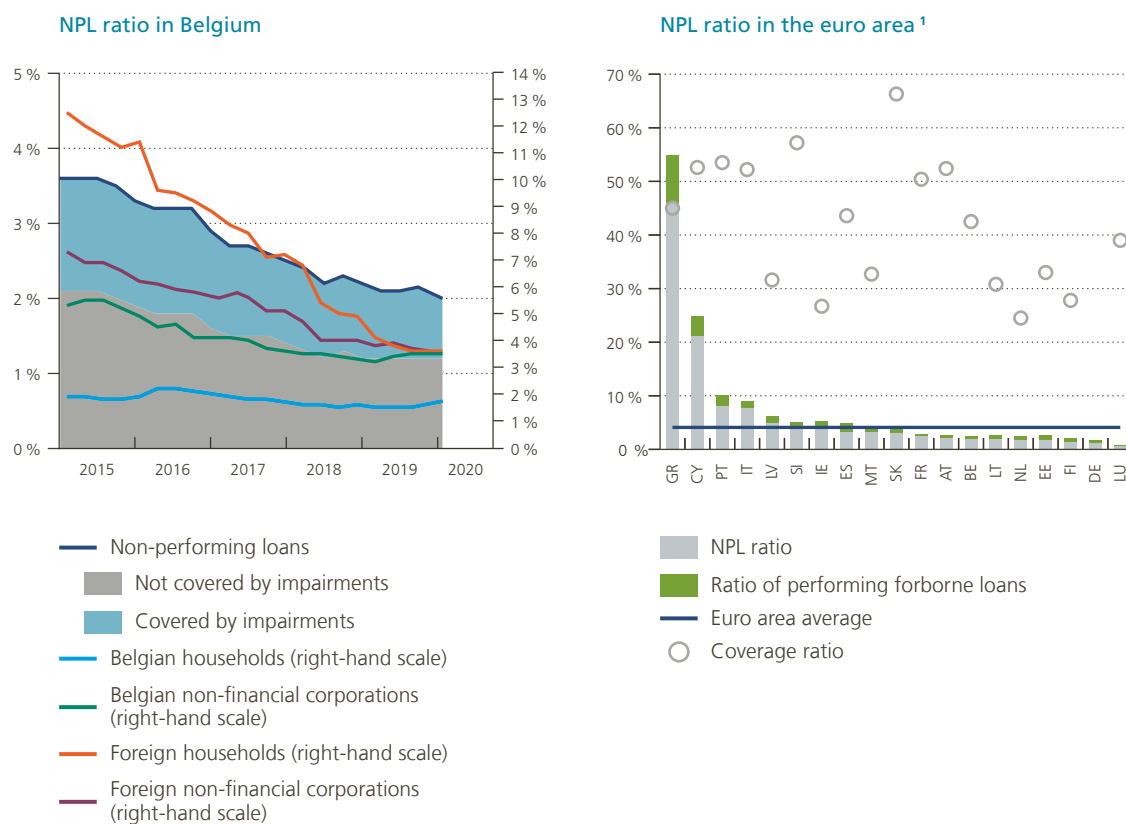
Over the past years, credit quality in the Belgian banking sector has continuously improved. Between 2013 and 2018, the share of non-performing loans (NPLs) – which corresponds to the share of loans that may not be repaid due to their borrower getting into financial trouble or which are already in arrears – fell from 4.3 % to 2.3 % against the background of favourable economic circumstances. As a consequence, banks also had to recognise fewer and fewer costs for loan losses, which supported their profitability.

In 2019, the trend towards continuously lower NPLs lost momentum as only a small additional decline in the NPL ratio could be recorded, dropping from 2.3 % at the end of 2018 to 2.1 % one year later (Chart 7). As was the case in previous years, the fall in the NPL ratio was mainly due to a fall in foreign non-performing loans

**Chart 7**

**Asset quality**

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



Sources: NBB, ECB.

<sup>1</sup> Figures refer to September 2019.



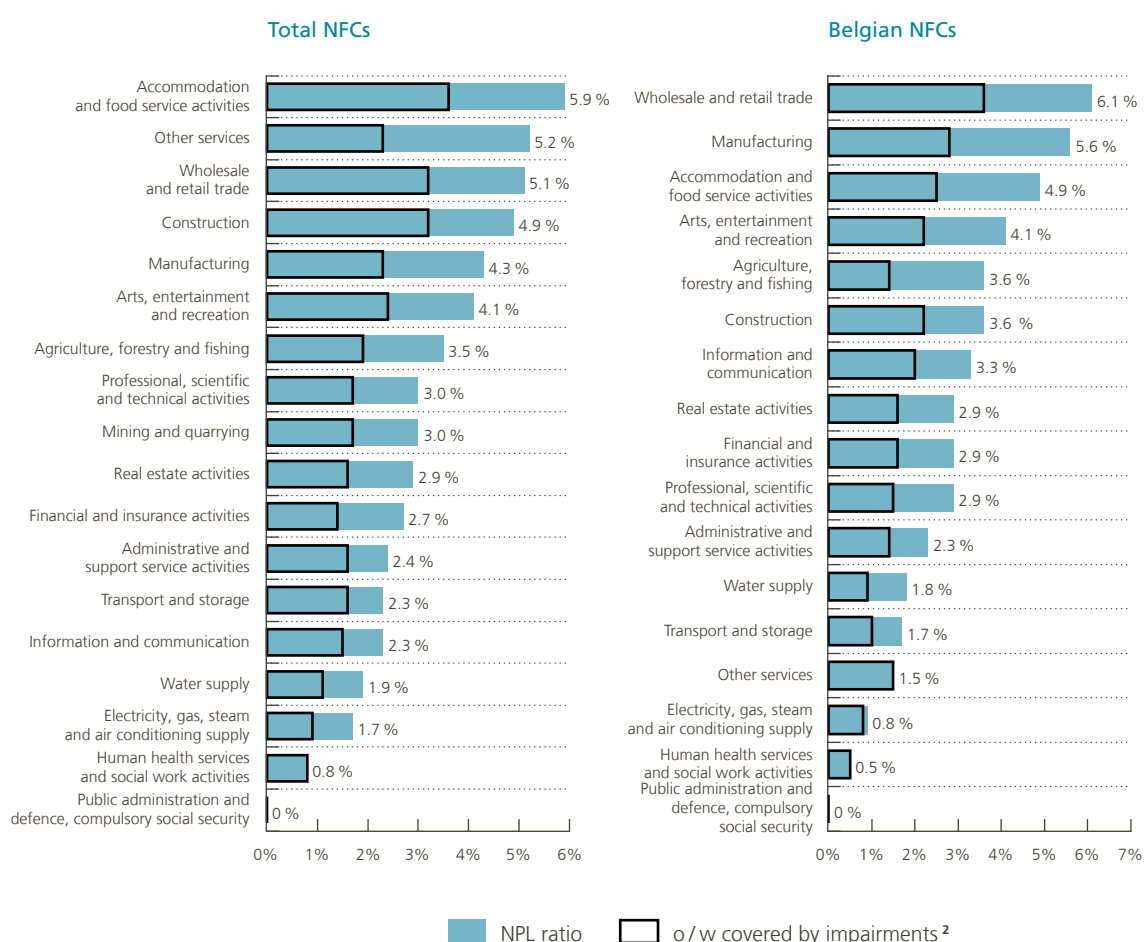
(including in Ireland), which tend to be higher than those for Belgian counterparties. The generally better credit quality of domestic loans is partly explained by the absence of a real estate crisis in Belgium in the aftermath of the financial crisis, in contrast with some other European countries. Therefore, the Belgian banking sector also displays one of the lowest overall NPL ratios in the euro area, where the weighted average amounted to 3.3 % in September 2019.

During 2019, the NPL ratio of loans to foreign households and non-financial corporations thus further declined (from 5.0 % to 3.6 % and from 4 % to 3.7 % respectively) while the NPL ratio of loans to Belgian households and non-financial corporations remained more or less stable (at 1.5 % and 3.5 % respectively). This implies that most of the efforts undertaken in the past several years to reduce NPLs were indeed located in foreign markets. However, economic conditions in some key foreign markets where Belgian banks are locally active already reversed this NPL dynamic as for example in Turkey. While the NPL ratio for loans to foreign households remains large compared to Belgian exposures in 2019 (respectively 3.6 % versus 1.5 %), the NPL ratio for loans to foreign non-financial corporations is close to that for loans to Belgian non-financial corporations (3.7 % versus 3.5 %).

**Chart 8**

**NPL ratio of loans to non-financial corporations by corporate sector<sup>1</sup>**

(Ranked according to NPL ratio; end 2019, consolidated data, in %)



Source: NBB.

<sup>1</sup> Sector only included if total outstanding amounts towards the sector are larger than € 1 billion.

<sup>2</sup> The part covered by impairments shows the extent to which impairments have been booked for corporate NPLs. It should be noted that these NPLs can additionally be covered by collateral (not shown in the chart).

The improvement in the NPL ratio for corporate loans in previous years was broad-based: it was observed, to a greater or lesser extent, in all corporate sectors. Nevertheless, credit quality still significantly differs between corporate sectors, as shown in Chart 8. At the end of 2019, NPL ratios ranged from almost 0 % for loans to corporates in the sector of public administration, defence and compulsory social security, to 5.9 % for loans to corporates in the accommodation and food service activities sector. Due to the economic impact of the coronavirus crisis, credit quality is set to deteriorate, especially in the most affected sectors. In fact, some of the sectors which experienced the largest sales losses so far – namely, as mentioned before, the sectors of accommodation and food service activities, entertainment, construction and wholesale and retail trade – already show relatively high NPL ratios: at the end of 2019, loans to Belgian non-financial corporations in those most affected sectors had NPL ratios of respectively 4.9 %, 4.1 %, 3.6 % and 6.1 %. As shown by the outstanding amounts by corporate sector in Table 1, some of those exposures with high NPL ratios are nevertheless rather small, so that the NPL ratio of Belgian corporate loans is only 3.5 % on average.

### *A good starting position and policy measures will help to contain the impact on banks*

Belgian banks have some room to deal with a worsening of credit quality, since the use of forbearance – i.e. the amount of exposures for which banks have made concessions (modifications of the contract or debt refinancing) towards debtors facing or about to face financial difficulties in meeting their commitments – has so far been very limited. At the end of 2019, the ratio of forborne performing loans, which can be an indication of future NPLs, amounted to 0.4 %, as against 0.9 % in the euro area. As a result, there is room to increase forbearance for debts due by companies that remain viable with a rescheduling of their debt payments that alleviates their temporary liquidity problems.

As mentioned before, the federal government, the National Bank of Belgium and the Belgian financial sector agreed in March 2020 on the provision of a moratorium, implying that the financial sector grants postponement of payment without charge to viable non-financial businesses, the self-employed and households with payment problems as a result of the coronavirus crisis. This will of course provide some relief to tightening financing conditions and partially mitigate asset quality deterioration. For loans to viable Belgian non-financial corporations, the federal government also put in place a system of state guarantees for eligible loans that covers new corporate lending with a sharing of losses (according to tranches) between banks and the federal government on the portfolio of eligible loans that the bank grants (see also MPR section III.A). As of June, more than 120,000 mortgage loans and more than 130,000 loans to non-financial corporations (predominantly SMEs) had benefited from a moratorium in line with the above-mentioned charter – thus not counting other types of debt rescheduling – accounting for respectively around €13 billion and €22 billion of loans with a partial rescheduling of debt payments.

**Table 2**

### **Belgian banks' impairment ratio and coverage ratio**

(consolidated end-of period data, in %)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 Q1
Impairment ratio <sup>1</sup>	2.0	2.9	2.8	3.3	3.8	4.3	3.9	3.6	3.4	2.8	2.4	2.2	2.2
Coverage ratio <sup>2</sup>	41.1	43.0	42.8	41.5	41.4	39.5	43.3	44.1	44.9	44.8	44.5	43.3	42.8

Source: NBB.

1 Ratio between impaired claims and total loans. Under IAS 39, the figures related to impaired claims according to the IAS 39 definition. Since the introduction of IFRS 9 (2018), the figures relate to the Stage 3 loans according to the IFRS 9 definition.

2 Ratio between the accumulated impairments on impaired claims, expressing the extent to which impaired claims are covered by impairments. Under IAS 39, the figures related to impaired claims according to the IAS 39 definition. Since the introduction of IFRS 9 (2018), the figures relate to Stage 3 loans according to the IFRS 9 definition.

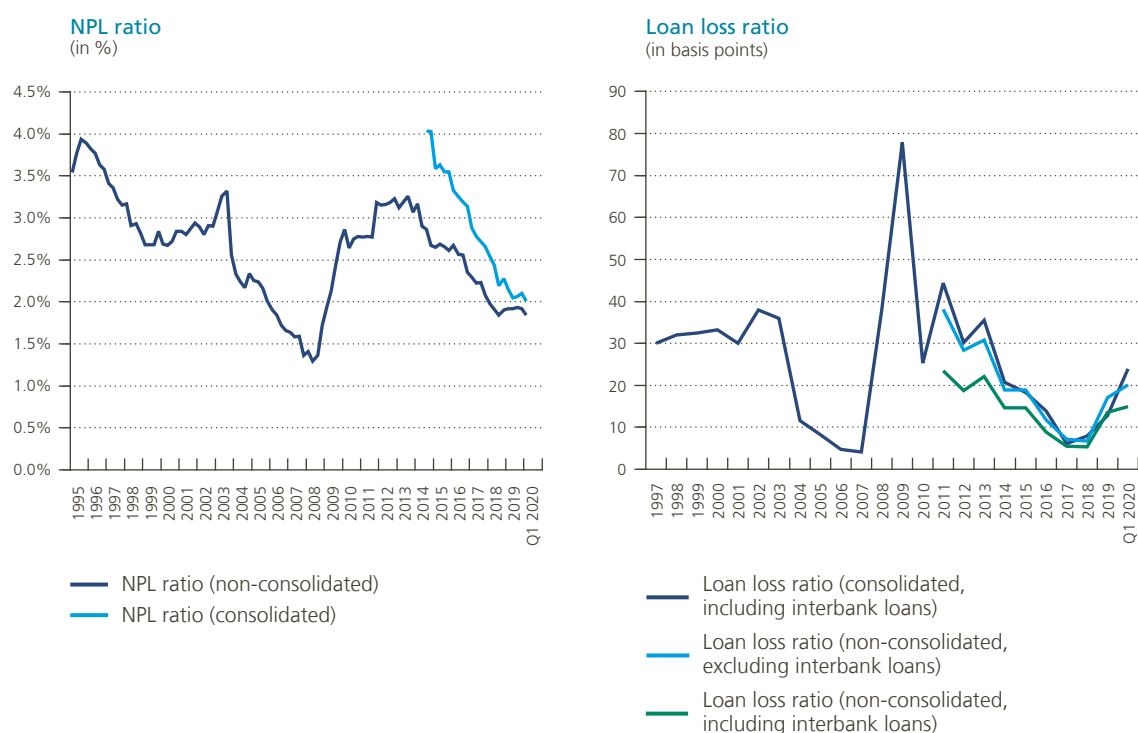
It should be mentioned in this context that loans to the private sector that fall under the scope of the moratorium will not automatically result in a higher forbearance ratio. The EBA statement of 25 March 2020 concerning moratoria clarifies that granting a moratorium should not be seen as an automatic trigger for stage 2 of IFRS 9 because banks will still need to determine whether there has been a significant increase in credit risk over the entire life of the loan since its origination. As a reminder, since the introduction of IFRS 9, impairments and provisions are recognised in three stages and have to be calculated based on expected rather than incurred losses (in contrast to the IAS 39 standard that it replaced). Stage 2 implies that when a loan's credit risk has increased significantly since initial recognition and is not considered low, lifetime expected losses have to be recognised and provisioned for (see Box 2 on IFRS 9 in section 1.4 for more details).

The risks linked to existing non-performing exposures are partly mitigated by the extent to which banks have created reserves to cover the expected losses stemming from borrowers' failure. At the end of 2019, the coverage ratio amounted to 43.3 %, which means that accumulated impairments on NPLs cover almost half of the gross outstanding amount of these NPLs (Table 2). This ratio has remained relatively stable over the past years and is also close to the euro area average. Non-performing loans can additionally be covered by collateral received, such as the value of the properties which serve as collateral for mortgage loans. Including collateral, the coverage ratio of the Belgian banking sector amounted to 82 % at the end of 2019. Note, however, that the value of collateral can change rapidly when financial or real estate market conditions become less buoyant.

**Chart 9**

### NPL ratio and loan loss ratio <sup>1</sup>

(consolidated and non-consolidated data)



Source: NBB.

<sup>1</sup> 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 percent). 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".

While it is too early to assess precisely the impact of the coronavirus crisis on credit quality, it is important to note that credit costs had already started to increase in the quarters before the crisis. Banks' tendency over the past few years to weaken credit standards amidst high competition and search for yield probably contributed to this development and will also result in additional future defaults in the context of the current crisis. Chart 9 indeed shows a further deterioration in the loan loss ratio – defined as the ratio between new net impairments on financial assets and the total volume of financial assets – , including in the first quarter of 2020. This implies that new net impairments increased at a higher rate than the increase in the stock of loans. When taking a broad measure of the credit stock (including interbank credit and using a consolidated basis), the loan loss ratio almost doubled between end 2019 and March 2020 from 0.13 % to 0.24 %. The narrower concept, that only takes into account private sector loans and uses an unconsolidated view, shows a deterioration from 0.17 % to 0.20 %. The results in the first quarter of 2020 do not represent the full effect of the crisis on impairments, as credit losses are expected to occur with delays, even if a large number of banks already frontloaded to some extent the recognition of forthcoming problematic loans.

In contrast to the loan loss ratio, the NPL ratio slightly further decreased in the first quarter of 2020 after stabilising during 2019, from 1.9 % to 1.8 % on an unconsolidated basis and from 2.1 % to 2.0 % on a consolidated basis. Nevertheless, the coronavirus pandemic has led to sudden supply- and demand shocks and deteriorating economic prospects, with the expectation of rising default rates, higher credit risk provisioning needs and higher NPLs in the following quarters, which will also impact profitability. Box 1, using consolidated supervisory data, provides preliminary results on the Belgian banking sector's income statement for the first quarter of 2020, showing a net increase in loan loss provisions – compared to the results of the first quarter of 2019 – of around € 240 million.

## BOX 1

### Bank profitability in the first quarter of 2020

Consolidated supervisory data for the first quarter of 2020 provide a first indication of the impact of the coronavirus crisis on the profitability of the banking sector. This quarterly information needs to be compared with the first quarter of 2019 in order to take into account the seasonality in the data (e.g. because most bank taxes are booked in the first quarter).

As shown in the table below, the bottom-line net profit decreased from € 0.9 billion in the first quarter of 2019 to € 0.2 billion in the same quarter of 2020. Looking at the components of the income statement, net interest income remained resilient and improved by € 0.1 billion to € 3.7 billion compared to a year earlier. While interest income from debt securities decreased and interest expenses on deposits increased, this effect was compensated by an increase in interest income from loans and advances. This relates to the fact that, as discussed earlier, lending volumes remained supportive during the period under review. In addition, the introduction of the two-tier system for remunerating excess reserve holdings at the ECB – applied as of the reserve period starting 30 October 2019 and exempting part of banks' excess reserve



holdings from the negative rate of 50 basis points currently applied to the deposit facility – also supported net interest income in the comparison with the results recorded in 2019.

The improvement in net interest income was however offset by a decrease in non-interest income, leading to a slight decrease in total operating income to € 5.1 billion from € 5.5 billion in the first quarter of 2019. During the first quarter of 2020, (un)realised losses on financial instruments amounted to € 0.9 billion. For the major part, these losses are due to positions in financial assets and liabilities categorised by IFRS as held for trading and are concentrated at a small number of banks. Especially positions in foreign exchange and interest rate derivatives and to a lesser extent equity instruments contributed to this loss. These instruments are mostly of a non-trading nature and part of the banking book in the context of hedging transactions for example, but – as they are categorised under fair value – they are also subject

### Main components of Belgian banks' income statement

(consolidated data, in € billion)

	2018	2019	2019 Q1	2020 Q1
<b>Net interest income</b>	14.41	14.62	3.61	3.73
<b>Non-interest income</b>	8.25	8.48	1.91	1.39
Net fee and commission income <sup>1</sup>	5.58	5.57	1.33	1.47
(Un)realised gains or losses on financial instruments <sup>2</sup>	1.22	0.53	0.30	-0.94
Other non-interest income	1.46	2.39	0.28	0.86
<b>Total operating income (bank product)</b>	22.66	23.10	5.52	5.14
<b>Total operating expenses</b> (–)	13.89	13.74	4.10	4.29
Staff expenses <sup>3</sup>	6.84	6.77	1.66	1.67
General and administrative expenses	7.05	6.97	2.44	2.62
<b>Total impairment and provisions</b> (–)	0.83	1.26	0.26	0.50
Impairments on financial assets at amortised cost	0.61	1.05	0.29	0.50
Impairments on other financial assets	-0.01	0.01	0.01	0.00
Other impairments and provisions	0.23	0.20	-0.03	0.00
<b>Other components of net operating income<sup>4</sup></b>	0.26	0.25	0.05	0.02
<b>Net operating income</b>	8.20	8.35	1.21	0.37
<b>Tax and extraordinary profit or loss</b>	-2.00	-1.78	-0.18	-0.07
<b>Net profit or loss including minority interest</b>	6.20	6.57	1.04	0.29
<i>p.m. Net profit or loss (bottom-line result)</i>	5.60	6.12	0.90	0.17

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 Excluding commissions paid to bank agents.

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.



to market risk and the unrealised gains and losses are reflected in the income statement. The current climate of exceptionally high volatility on the financial markets and high uncertainty over the economic outlook is also posing a challenging environment for banks' dealing room activities. Nevertheless, income from financial assets held for trading is overall much less prominent than a decade ago, as banks have significantly reduced their trading books and are no longer involved in proprietary trading. Losses caused by financial instruments in the trading book contributed only to a limited extent to the total loss of € 0.9 billion during this quarter.

Both net fee and commission income as well as total other non-interest income improved in the first quarter of 2020 relative to the same period in 2019. However, under the current circumstances, it is likely that some categories of fee and commission income will come under pressure. With respect to payment business activities, the number of transactions could decline in line with economic activity, while for the asset management activities, both fees based on the volume of assets under management and fees based on overall performance will most probably be lower than under the benign capital market conditions observed in 2019.

Total operating expenses increased to € 4.3 billion in the first three months of 2020. While staff expenses remained stable compared to the same quarter in 2019, there was a noticeable increase in general and administrative expenses.

In addition to lower operating income and higher operating expenses, the increase in total impairment and provisions also contributed to the negative change of net operating income in the first quarter. Banks booked higher impairments than in 2019 during the first quarter, resulting in an increase of € 240 million to € 0.5 billion. The underlying results show that impairments increased especially for the domestic assets.

The increase in impairments is expected to continue during the remainder of 2020 and 2021, as credit quality is expected to deteriorate further. On average, banks seem to expect an annual loan loss ratio of more than 100 basis points in their baseline scenarios, up from 20 basis points in the first quarter of 2020 and compared to a historical annual average of around 30 basis points (Chart 9). Impact analysis shows, however, that Belgian banks can deal with scenarios that are significantly more adverse, as micro- and macroprudential capital resources have been released to absorb these losses and voluntary buffers are solid.

### 1.3 Profitability provides a first line of defence for banks to deal with losses

#### *The Belgian banking sector recorded adequate profitability in recent years ...*

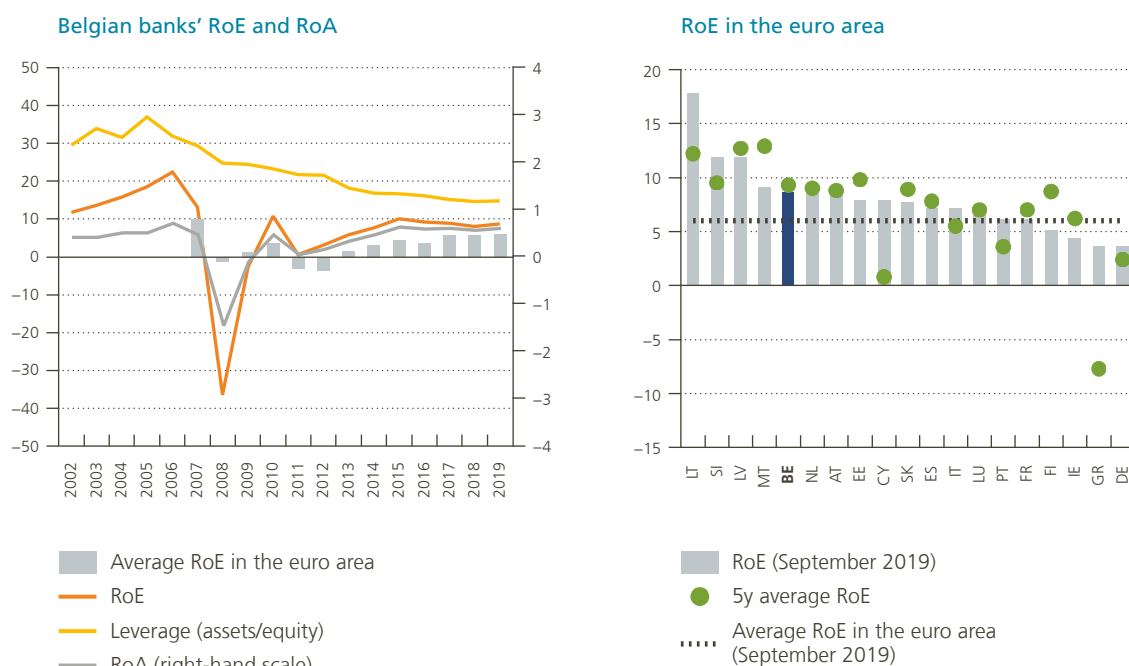
The Belgian banking sector entered the coronavirus crisis with strong capital buffers and adequate profitability, providing significant resources to deal with a potential increase in credit or other losses in the quarters ahead. Profitability is the first line of defence and will be reviewed in more detail in this subsection, with a first update on the results recorded in the first quarter of 2020 being provided in Box 1.

The bottom-line net profit improved significantly in 2019, rising from € 5.6 billion in 2018 to € 6.1 billion, the highest level since 2007. This good result was due to higher net interest income, higher non-interest income and lower operating costs which more than offset increasing impairments. The return on equity (RoE) amounted

Chart 10

### Profitability: development over time and euro area comparison<sup>1</sup>

(consolidated data, in %, unless otherwise stated)



Sources: NBB, ECB.

<sup>1</sup> Figures for 2019 for the euro area refer to September 2019 (annualised).

to 8.7 % in 2019, i.e. an increase of 65 basis points with respect to 2018 (Chart 10). Similarly, the return on assets (RoA) improved to 0.59 % from 0.55 % in 2018. Both are significantly higher than the euro area averages of respectively 6 % and 0.4 %, in line with the relatively better performance of the Belgian banking sector seen over the past several years.

### ... albeit with a heterogeneous performance between banks and between types of banks

The good profitability at sector level hides a heterogeneous performance of individual banks, however. As shown in Chart 11, the RoE and cost-to-income ratios of Belgium's four biggest banks and that of smaller savings banks with a retail-oriented business model clearly differs. Whereas the biggest banks lifted their RoE to above 9.5 % last year, it dropped for the smaller (savings) banks to only 3.6 %. The largest banks also improved their cost efficiency with a drop in the cost-to-income ratio to 57.7 % in 2019, while smaller savings banks recorded a sharp increase in this ratio to 74.9 %.

The growing divergence in the profitability and cost efficiency ratios between the larger banks on the one hand and the retail-oriented medium to small-sized savings banks took place in the context of a very low interest rate environment. Low interest rates put high pressure on the classical earnings model of savings banks focused on maturity transformation and the related remuneration in the form of net interest income. The Belgian savings banks derive most of their income from the interest rate differential between short-term savings deposits and long-term (mortgage) loans and investments. This margin continued to shrink in 2019. This negative impact of low interest rates is magnified when the business model is concentrated on low-margin mortgage lending and

when pro-active hedging transactions against the low interest rate environment either did not occur or have come to maturity. The large banks have a more diversified revenue model in terms of the types of activities generating income, and in terms of the geographical location of those activities. These banks can also take advantage of their scale to spread the costs associated with IT investments in digitisation and data management that are necessary to compete with digital players. While the major restructuring and investments made by the four major banks had led to an increase in operating costs in 2018, these reforms seem to start bearing fruit as their operating costs dropped in 2019 while operating revenues are up, resulting in a better cost-to-income ratio.

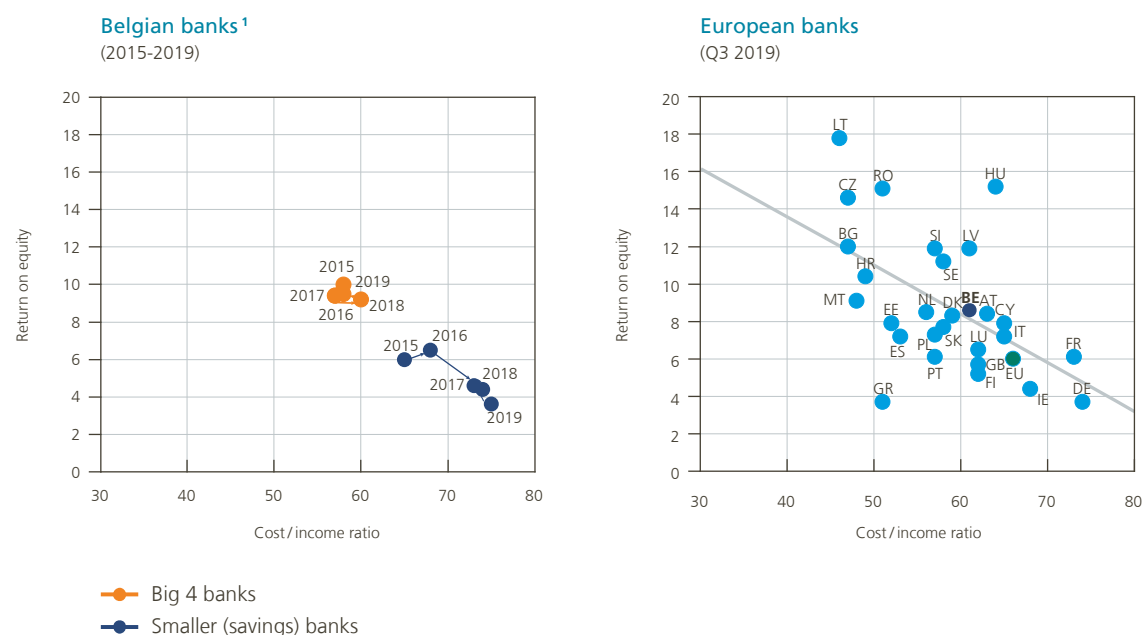
The clear differences observed between the bigger banks and smaller savings banks in terms of profitability and cost efficiency suggest that the earnings model of the smaller savings banks is coming under increasing pressure and that these banks in particular will have to be attentive (and restructure where necessary) to remain sufficiently competitive and profitable.

As the right panel of Chart 11 shows, in addition to bank-specific factors also country-specific factors seem to play a part in national banking sectors' average profitability and cost efficiency. These could be linked to factors such as differences in the country-wide use of digital banking and the legacy of physical branch networks or to differences in the structure of the national banking markets, such as the degree of market concentration or the market share of certain sub-categories of banks (e.g. banks whose main objective is not necessarily to maximise profits, as in the case of co-operative banks for example). These structural, country-specific factors help to explain the average profitability and cost efficiency of the banking sector in any given country. For instance, in a market with lots of players, banks have much less scope to set their own margins and depend very much on the behaviour of their competitors, influencing their profitability. The degree to which a banking sector uses digital distribution channels rather than a physical network of branch offices, to give another example, can

**Chart 11**

### Differences in profitability and cost efficiency reflect bank-specific and country-specific factors

(annualised consolidated data, in %)



Sources: NBB, ECB.

<sup>1</sup> Excluding banks specialising in private banking.



also have an impact on cost structures, etc. These factors go some way to explaining the differences between European banking markets in terms of the return on equity and cost-to-income ratios, with cost-efficient markets turning out to be clearly more profitable.

### *Many components of the income statement improved in 2019, but could be pressured going forward*

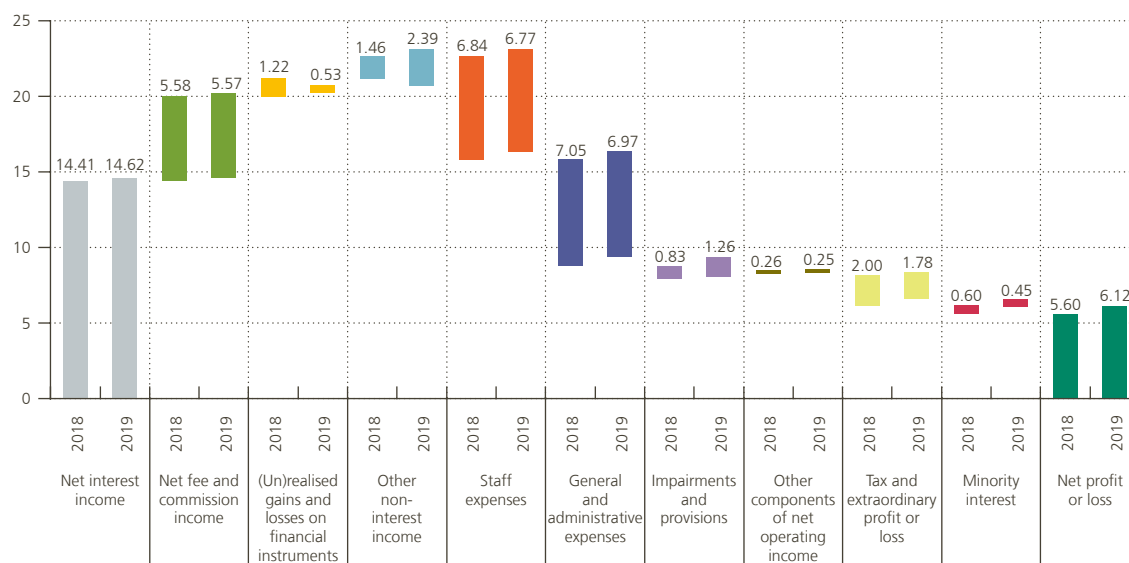
Chart 12 and Table B1 in section 3.1 document the different components of the sector's income statement at consolidated level. In 2019, net interest income remained the main source of income for Belgian banks, still accounting for 63 % of total income, above the European average of 56 %. Despite the low interest rate environment, net interest income further improved in 2019 to € 14.6 billion (versus € 14.4 billion in 2018). This is surprising, given that banks' net interest margins are declining in the context of the historically low interest rates in financial markets. The average interest rates earned on Belgian banks' main components of gross interest income have continued their descent due to the lower interest rates on new loans and the refinancing of existing loans at lower rates (Chart 13). Interest rates on deposits have reached a floor, preventing banks from further decreasing the interest costs for their funding.

As mentioned before, over the past years, Belgian banks have tried to offset the decline in their net interest margins by boosting lending volumes, especially for loans to Belgian households and non-financial corporations. In addition to boosting loan volumes, several other factors led to net interest income remaining resilient for the Belgian banking sector. First, banks see increased net profit derived from foreign, non-euro area activities where interest margins can be more favourable compared to domestic activities. For certain banks, this also includes net profit derived from investing in deposits with central banks that are not part of the euro area. Second, the overall negative net interest result from derivative hedging decreased further during 2019, so that the net interest margin after the impact of derivatives was more resilient. And finally, granular analysis of a number of Belgian banks' government bond portfolios shows some signs of search-for-yield behaviour. Newly purchased debt instruments in the bond portfolios are geographically more diversified than they used to be, and banks

**Chart 12**

### **Main components of the income statement in 2019 versus 2018**

(consolidated data, in € billion)

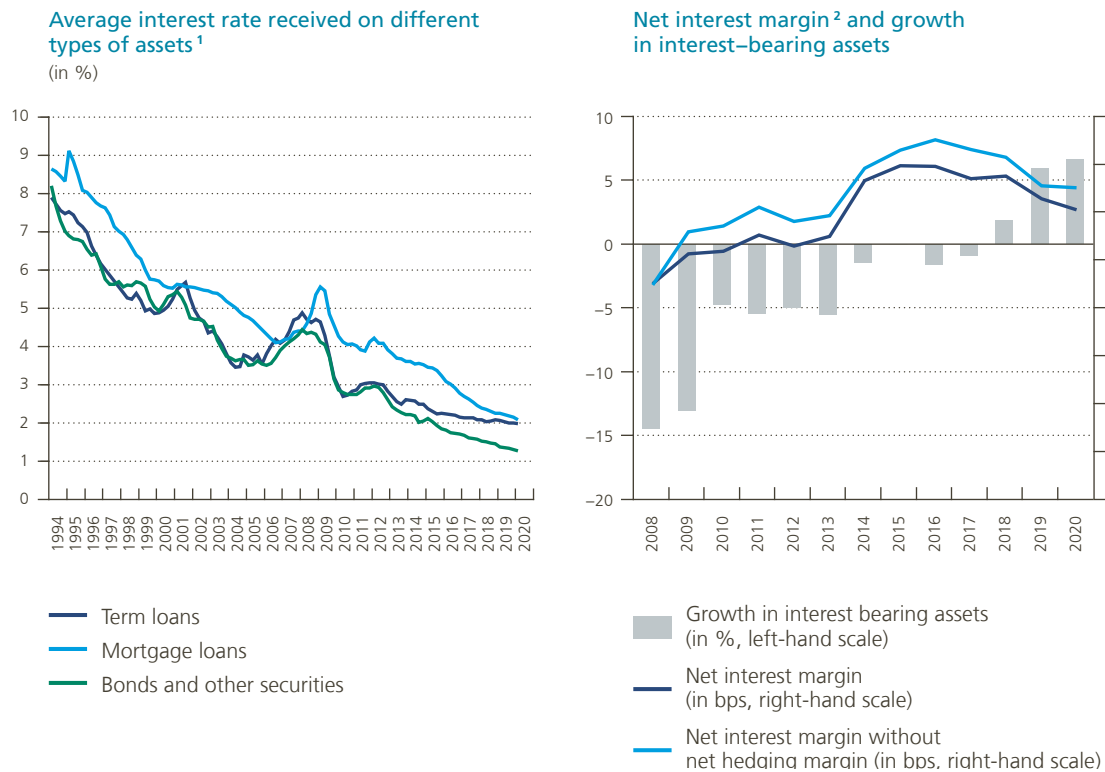


Source: NBB.

Chart 13

## Despite pressure on the intermediation margin, net interest income remains resilient due to higher loan volumes

(non-consolidated data)



Source: NBB.

<sup>1</sup> Implicit yields on assets are calculated as the ratios between the 12-month cumulative flows of interest actually received, and the average volume of corresponding assets in the same period.

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

hold relatively larger numbers of bonds from countries with lower ratings. This geographical diversification does imply other risks, though, against which banks must protect themselves adequately.

A search for yield can help banks to temporarily ward off pressure on their profitability, but some of these strategies expose them to larger credit, liquidity and interest rate risks in the longer term, and these risks could materialise in the event of an economic shock. In the interest of financial stability, it is therefore advisable for banks to develop sustainable strategies to support their profitability.

Total non-interest income improved in 2019 to € 8.5 billion versus € 8.3 billion in 2018. Net fee and commission income, which forms the largest part in this income category, remained stable at € 5.6 billion. In order to reduce pressure on profitability, Belgian banks have tried to diversify their income sources over the last years by directing more commercial efforts to increasing fee and commission income. Nevertheless, as a percentage of total operating income, fee and commission income has been slightly decreasing over the last years to levels around 24 %.

For the sector overall, the largest contribution to fee and commission income comes from the component related to income from asset management activities (22.6 %), which has risen over time from € 1.4 billion in 2016 to € 1.9 billion in 2019 and this largely at the expense of reduced income from custody activities (from € 1.2 billion

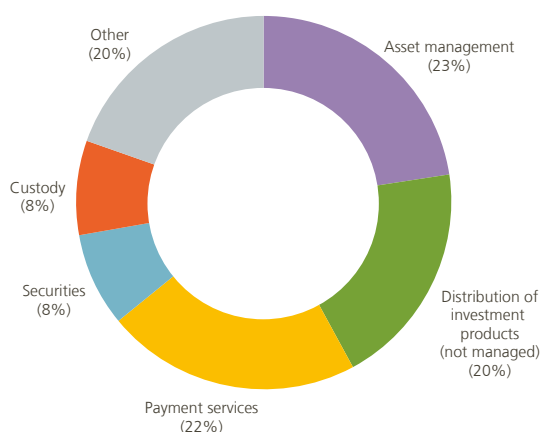
Chart 14

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

(consolidated data)

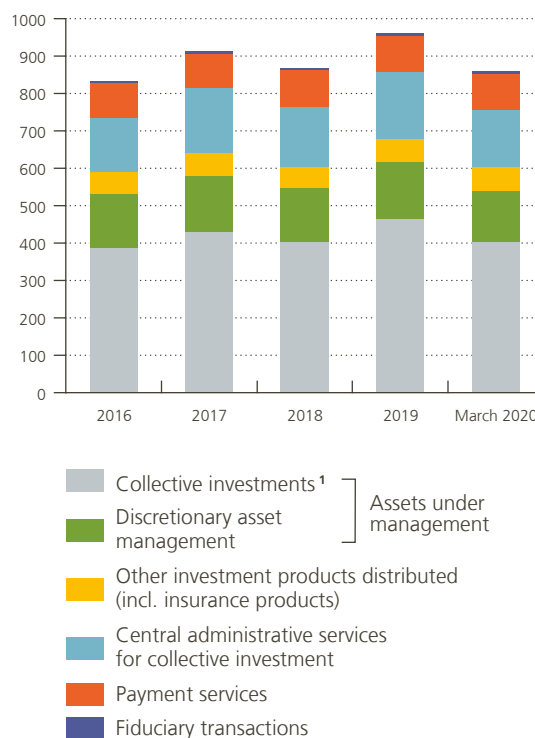
### Breakdown of gross fee and commission income by source

(in 2019, in % of total)



### Assets involved in the services provided (excluding custody)

(end-of-period data, in € billion)



Source: NBB.

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

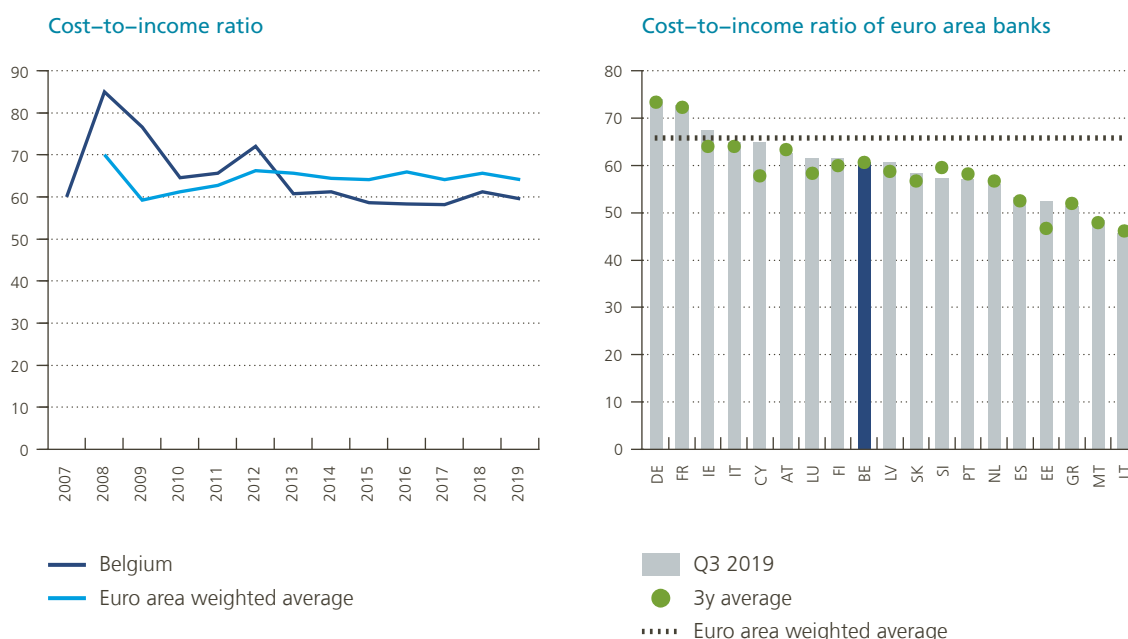
to € 0.7 billion over the same period). Thanks to the positive climate on the financial markets in 2019, banks have been able to reverse the decrease in assets under management from 2018. In 2019, assets under management – which consist of client assets managed on a discretionary basis and of collective investment products either managed by the banks (and their subsidiaries) themselves or sourced from other parties and distributed to their clients – increased by € 72 billion to € 617 billion due to positive valuation effects as well as increased investment appetite on the part of clients (Chart 14). This effect was however reversed by the end of the first quarter of 2020, as the outbreak of the coronavirus epidemic led to renewed tensions on the financial markets.

Chart 12 also shows that as far as the other components of non-interest income are concerned, banks booked fewer gains on financial instruments than in 2018 (€ 0.5 billion versus € 1.2 billion). Unrealised gains from financial assets held for trading decreased from € 977 million in 2018 to € 612 million in 2019, while unrealised losses from financial assets and liabilities designated at fair value through profit or loss amounted to € 465 million. Other non-interest income was significantly higher in 2019 (up € 928 million compared to 2018). The increase in other non-interest income was driven especially by positive exchange differences related to the appreciation of several currencies in 2019. Developments in the other components of non-interest income reflect specific actions by a limited number of individual banks in the sector rather than general trends in the banking sector.

Chart 15

### Cost-to-income ratio<sup>1</sup>

(consolidated data, in %)



Sources: NBB, ECB.

<sup>1</sup> Figures for 2019 for the euro area refer to September 2019.

As a result of these developments, total operating income – the sum of net interest income and non-interest income – increased by almost € 0.5 billion to € 23.1 billion. This increase in operating income was supported by a reduction in operating costs of € 144 million to € 13.7 billion. Both staff expenses and other administrative expenses decreased in 2019 from the 2018 levels. Staff expenses decreased for the first time since 2016, and general and administrative expenses decreased for the first time since 2014. Due to positive developments in both the operating income and the operating expenses in 2019, the cost-to-income ratio improved from 61.2 % in 2018 to 59.5 %. Compared to the banking sectors in other euro area countries, Belgian banks continue to perform better in terms of return-on-equity ratio (right panel in Chart 10) and cost-to-income ratio (Chart 15). As in the past several years, the cost-to-income ratio remained below the euro area average, which amounted to around 65 % in September 2019. This euro area average is largely influenced by developments in the largest banking sectors, such as in Germany and France, where cost-to-income ratios are high (above 70 %).

As shown in Chart 12, newly booked net impairments and provisions amounted to € 1.3 billion in 2019, which is € 429 million higher than in 2018. Despite this sharp increase, credit costs remained close to historically low levels. The net impairments and provisions for covering credit losses of Belgian counterparties rose by 73 %, or € 0.5 billion, in 2019, whereas they decreased by € 0.2 billion for foreign activities, (partly) reversing the increase observed in 2018.

As a consequence, the loan loss ratio, which is defined as the ratio between new net impairments on financial assets and the total volume of financial assets, further increased in 2019 (to 13 basis points compared to 8 basis points in 2018 and 6 basis points in 2017) albeit from very low levels (Chart 9). However, the NPL ratio has remained low and stood at 2.1 % at the end of 2019 (2.3 % at the end of 2018). This decrease can be largely attributed to a further fall in NPLs (nominator) while the total loan exposures further increased (denominator).

With this low NPL ratio of 2.1 %, Belgian banks score significantly better than the euro area average of 3.3 % in September 2019 (Chart 7).

Taxes booked by Belgian banks further declined in 2019 (€ 1.8 billion in 2019 versus € 2 billion in 2018). Since 2018, Belgian banks have benefited from the lower Belgian corporate tax rate, so that their effective tax rate is declining. The corporate tax rate will further decline to 25 % in 2020.

In 2019, the higher impairments and provisions were thus more than compensated by higher operating income, lower operating expenses and lower taxes, resulting in a positive impact on the bottom line. As a result, the bottom-line profit improved from € 5.6 billion in 2018 to € 6.1 billion in 2019 (Chart 12).

***Despite the policy response to the coronavirus crisis and the financial sector's robustness, banks' profitability will remain an important point of attention for some time***

As documented in detail in the Macprudential Report in this publication, policy-makers have taken a broad range of actions in response to the unprecedented shocks generated by the coronavirus crisis. The comprehensive package of fiscal and monetary policy measures provides support to the liquidity and funding conditions for households, businesses and banks and helps to preserve a smooth provision of credit to the real economy. In particular, through the prompt release of the countercyclical capital buffer, the Bank has provided Belgian banks with extra (preventive) capacity to maintain their critical financial intermediation function and deal with possible loan losses. At the same time, the Belgian fiscal authorities – at the regional and federal level – provided fiscal resources for new bank lending with state guarantees to compensate excessive losses and microprudential supervisors applied prudential flexibility to avoid unwarranted accounting losses passing through the income statement of the banks.

Despite these policy answers to the coronavirus crisis, Belgian banks' profitability will remain an important point of attention for some time, as the income statement is likely to experience – to a lower or lesser extent – the negative effects of banking portfolio revaluations, a general decrease in income related to a lower level of bank activity and an increase in NPLs and credit loss provisions. At this stage, it is still challenging to assess how strong these corona-related impacts will be for the Belgian banking sector.

Although data for the first quarter of 2020 (see Box 1) show a relatively low impact, the outlook for the banking sector's profitability has deteriorated as a result of the current crisis. Going forward, potential losses in the income statement will not necessarily be due to problems in the banking sector itself but will be the result of the important role that the banking sector will play in providing continuous financial intermediation. Banks are expected to use their strong capital and liquidity buffers to absorb credit losses in combination with loan forbearance and to play a key role in transmitting cheap ECB funding (TLTRO) to the non-financial private sector. This forms a challenging environment while at the same time pre-existing issues depressing profitability remain present, such as the persistent low interest rate environment and structural cost and other factors in the banking sector itself.

## **1.4 Robust solvency provides a second line of defence against the coronavirus crisis**

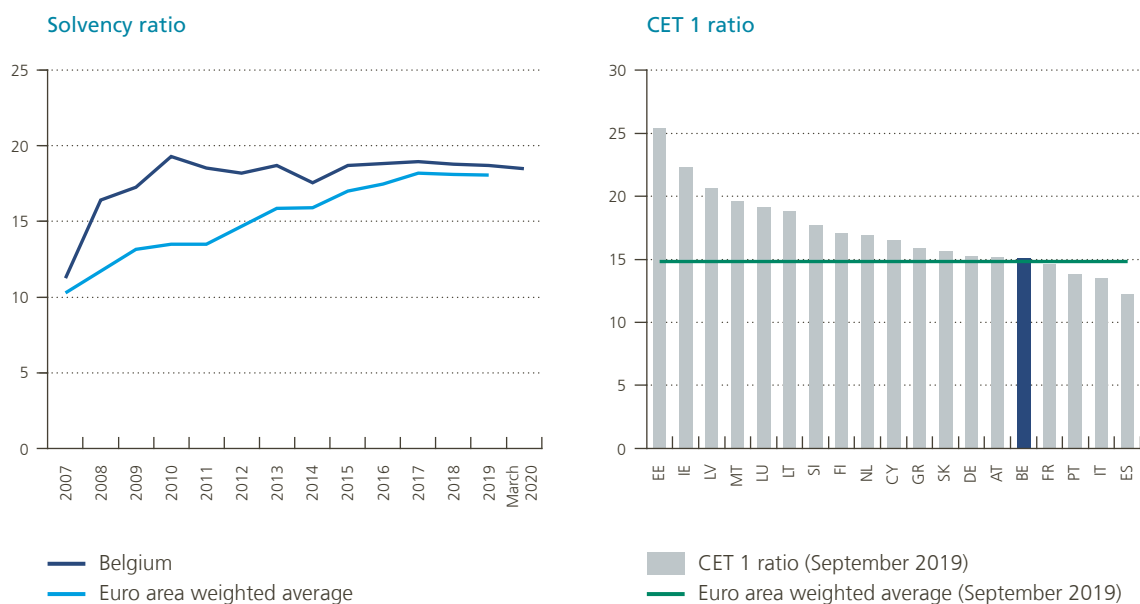
***Belgian banks are well capitalised and have ample capital to absorb losses and shocks in risk-weighted assets***

The capacity to face unexpected losses is to a large extent determined by banks' overall profitability (first line of defence) and by the size of the capital buffers that can be used to absorb losses in a going-concern perspective. The starting point for such an analysis is the overall level of capitalisation as measured by the total solvency ratio, which remained close to 19 % in 2019 (Chart 16). While Belgian banks strengthened their capital at a more rapid pace than other euro area countries after the 2008 financial crisis, the gap with the euro area average has narrowed in recent years (the euro area solvency ratio amounted to 18 % in September 2019). At the outbreak

Chart 16

### Total solvency and CET 1 ratio<sup>1</sup>

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



Source: NBB.

<sup>1</sup> Figures for 2019 for the euro area refer to September 2019.

of the coronavirus crisis, Belgian banks nevertheless had a strong solvency position and, as a result, a strong loss-absorbing capacity.

During 2019, Belgian banks' Tier I capital ratio slightly improved from 16.5 % to 16.7 % (Table 3). At the same time, the leverage ratio, which expresses the relationship between Tier 1 capital and non-risk-weighted assets, slightly decreased from 5.9 % to 5.8 %. Tier I capital itself increased from € 63 billion to € 65.4 billion. The slight improvement in the Tier 1 capital ratio was entirely due to the growth in Tier 1 capital, which was higher than the growth in risk-weighted assets (RWAs) in 2019.

As also shown in Table 3, the increase in overall RWAs is mainly due to the increase in credit risk RWAs from € 315.8 billion to € 322.2 billion in 2019. Higher lending volumes to the private sector have been the main driver of this. Credit risk accounts for the largest share of total RWAs (around 82 %), which is stable through time. Also, the category "other RWAs" showed a remarkable increase in 2019. The Article 458 macroprudential measure for Belgian mortgage loans – which consists, since 2018, of a uniform 5 percentage point add-on to the risk weights calculated by banks' internal models and of a more targeted component in the form of a risk weight multiplier (of 1.33) – mobilised an additional € 17 billion of RWA at the end of 2019, an increase of € 0.9 billion relative to the situation at the end of the previous year, as a result of the substantial growth in exposures. In the last quarter of 2019, there has also been a significant increase in RWAs for credit risk associated with securitisation positions (largely due to the revised securitisation framework), which amounted to € 4.6 billion in 2019 and which forms the remainder of the "other category".

The RWAs for market risk associated with the trading book further decreased to € 6.1 billion during 2019. The market risk framework – as modified under Basel 2.5 in 2011 – initially raised regulatory capital requirements for market risk. This was especially the case for banks that applied the internal model approach or had large

Table 3

**Solvency ratios and breakdown of capital and risk-weighted assets**

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

	2013	2014	2015	2016	2017	2018	2019	2020 Q1
Tier I capital	55.6	53.4	55.1	60.0	63.0	63.0	65.4	67.0
Common equity Tier I capital	–	51.5	53.3	58.1	60.4	59.7	61.1	62.7
Risk-weighted assets	339.4	349.8	345.4	369.5	373.1	382.2	392.6	407.1
of which:								
Credit risk	287.7	290.1	282.8	308.1	315.3	315.8	322.2	338.9
Market risk	9.9	7.1	9.5	6.1	7.3	7.2	6.1	7.0
Operational risk	34.2	34.9	36.0	38.7	36.7	38.6	38.4	38.5
CVA	–	8.2	6.9	5.5	4.3	4.5	3.9	3.7
Other	7.6	9.5	10.3	11.0	9.5	16.4	21.9	18.9
of which: based on Art. 458 <sup>1</sup>	0.0	8.0	8.5	8.8	9.2	16.1	17.0	17.3
Tier I capital ratio (in %)	16.4	15.3	16.0	16.2	16.9	16.5	16.7	16.5
Common equity Tier I ratio (in %)	–	–	14.8	15.2	15.9	15.6	15.6	15.4
Leverage ratio phased (in %)	–	4.7	4.8	5.5	5.9	5.9	5.8	5.7

Source: NBB.

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

positions in (re)securitisations. In the period that followed, there has been a gradual decline in capital requirements for market risk. This period has been characterised by de-risking and deleveraging activities and reduced customer trading activities compared to the levels seen before the financial crisis. Also, the introduction of the Belgian structural reforms in April 2014, which establish a prohibition in principle on trading on own account and on certain high-risk trading activities, contributed to the reduction of the market risk associated with the trading books. The activity of the dealing rooms today is in principle customer-flow oriented, which should keep trading book losses in extreme volatile markets – such as during the first half of 2020 – subdued. On average, the market risk capital requirements are currently limited to 1.6 % of the total capital requirements for the Belgian banking sector, compared to 82.1 % for credit risk and 9.8 % for operational risk.

The biggest subcomponent of Tier 1 capital, i.e. Common Equity Tier 1 (CET1) capital, increased from € 59.7 billion in 2018 to € 61.1 billion in 2019. As the growth rate of CET1 capital was similar to the growth rate of RWAs, the CET1 ratio of the Belgian banking sector remained stable at 15.6 % in 2019. This compares with an average CET1 ratio in the euro area banking sector of 14.8 % in June 2019.

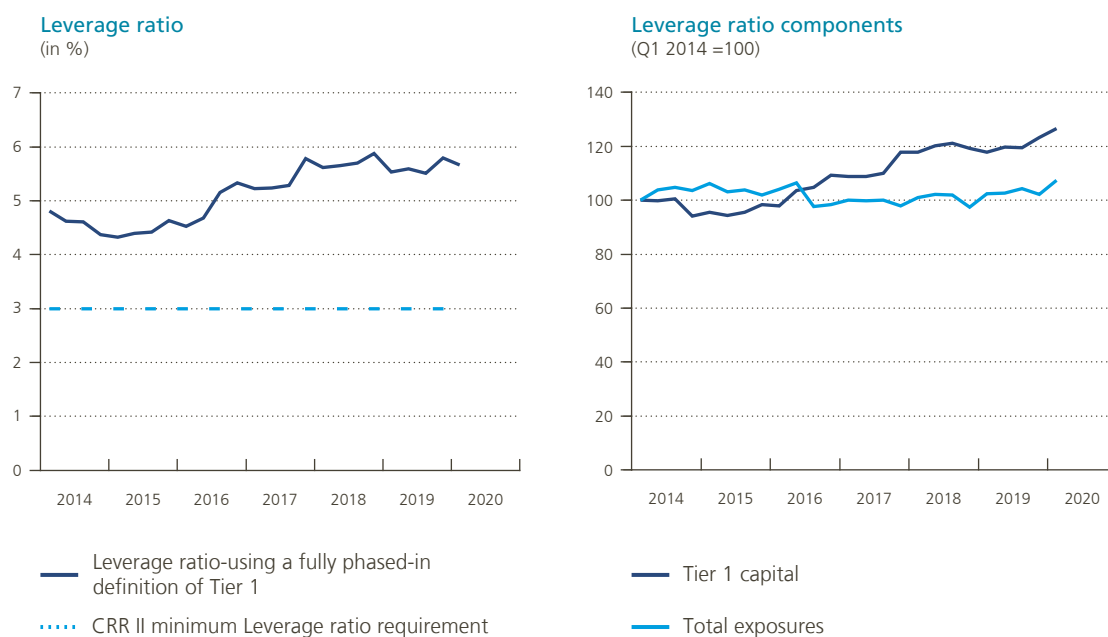
Capital ratios show that Belgian banks comfortably fulfilled their minimum capital requirements at the end of 2019. At that time, the minimum capital ratio required in accordance with CRD IV amounted to 10.5 %, including 2.5 % for the capital conservation buffer which has been fully implemented since the beginning of 2019.

As of June 2021, the European Commission's CRR 2 package imposes a 3 % minimum for the leverage ratio requirement, which expresses the relationship between Tier 1 capital and non-risk-weighted assets. It aims in part to constrain the commonly observed build-up of leverage by banks in favourable periods, followed by destabilising deleveraging in stress periods and, in addition, to serve as a safeguard against regulatory arbitrage and against model risk associated with banks' use of internal models for the calculation of their

Chart 17

### Leverage ratio of the Belgian banking sector<sup>1</sup>

(consolidated end-of-period data)



Source: NBB.

<sup>1</sup> The leverage ratio exposure measure includes both on-balance sheet exposures and off-balance sheet (OBS) items. On-balance sheet exposures are generally included at their accounting value, although exposures arising from derivatives transactions and securities financing transactions (SFTs) are subject to separate treatment. Balance sheet assets that are deducted from Tier 1 capital may also be deducted from the exposure measure.

risk-weighted regulatory capital requirements. At the end of 2019, the average phased-in leverage ratio for the Belgian banking sector amounted to 5.8 %, slightly down from 5.9 % at the end of 2018 (Chart 17). The increase in the leverage ratio's capital measure (numerator) was offset by a slightly larger increase in the exposure measure (denominator) over the course of 2019. The new leverage ratio requirement is thus not binding for the Belgian banking sector, as the available buffer is large compared to the 3 % minimum requirement.

### ... but the coronavirus crisis will not be very different from a real-life stress test

The national supervisors and the ECB have decided to make full use, where appropriate, of the flexibility embedded in the regulatory framework, to support the banking sector. In this context, the ECB allows banks to operate temporarily below the level of capital defined by the Pillar 2 Guidance (P2G) and the capital conservation buffer (CCB). These temporary measures enhance the earlier announced release of the countercyclical capital buffer (CCyB) by the Bank. Banks are also allowed to partially use capital instruments that do not qualify as Common Equity Tier 1 (CET1) capital, for example Additional Tier 1 or Tier 2 instruments, to meet the Pillar 2 Requirements (P2R) (see also MPR section III.C.2). The O-SII buffer, which is an additional buffer imposed by the Bank on banks designated as systemically important in Belgium, remains in place, as well as the macroprudential capital buffer for residential real estate risks (Art 458). The Bank has provided forward guidance as regards the modalities under which a release of the latter could be envisaged. Also in the context of impairments and provisions the supervisors clarified that the flexibility embedded in the accounting and regulatory framework is to be fully used by institutions (see Box 2 on IFRS 9 for more details).



The solvency position remained strong in the first quarter of 2020, in spite of the further increase in RWAs from € 392.6 billion to € 407.1 billion (Table 3). This increase in RWAs was mainly driven by an increase in RWAs for credit risk and to a lesser extent for market risk, while RWAs for operational risk remained constant. For most of the large banks, the increase in the credit risk RWAs was due to portfolios managed under the advanced IRB approach (internal models), more specifically to the corporate loan portfolios (corporates and SME) and to a smaller extent to the retail loan portfolios (real estate). During the first quarter of 2020, the increase in credit risk RWAs seemed mostly driven by higher volumes instead of higher probability of default parameters assigned to the obligor or higher loss given default parameters in internal models. A larger effect of the crisis on those parameters could become visible in the coming quarters when the severity of the coronavirus crisis will become clearer. Nevertheless, the dynamics of the moratorium and guarantee system and the evolution of exposures in the next quarters will also impact the development of the credit risk RWA.

Especially banks applying internal models for market risk have experienced an increase in their RWAs for market risk due to the volatility in financial markets as well as overshootings in the backtesting exercise, leading to higher multipliers to be applied in the Value-at-Risk (VaR) models. However, as the size of the trading book is limited overall, the impact on overall capital requirements was contained.

As shown in Table 3, both Tier 1 and CET1 capital increased during the first quarter of 2020. The Tier I capital ratio, which expresses the proportion between own funds and the above-mentioned RWAs, deteriorated slightly but remained well above regulatory minima. As the impacts of the coronavirus crisis will further materialise in the future, the importance of the (ample) available capital buffers for dealing with (un)expected losses that are in the pipeline will increase. Capital ratios will most likely decrease in the near-term as these buffers will be used. Nevertheless, as shown by previous stress testing exercises, the voluntary buffers of the Belgian banking sector are sufficient to withstand a very significant increase in NPLs.

## BOX 2

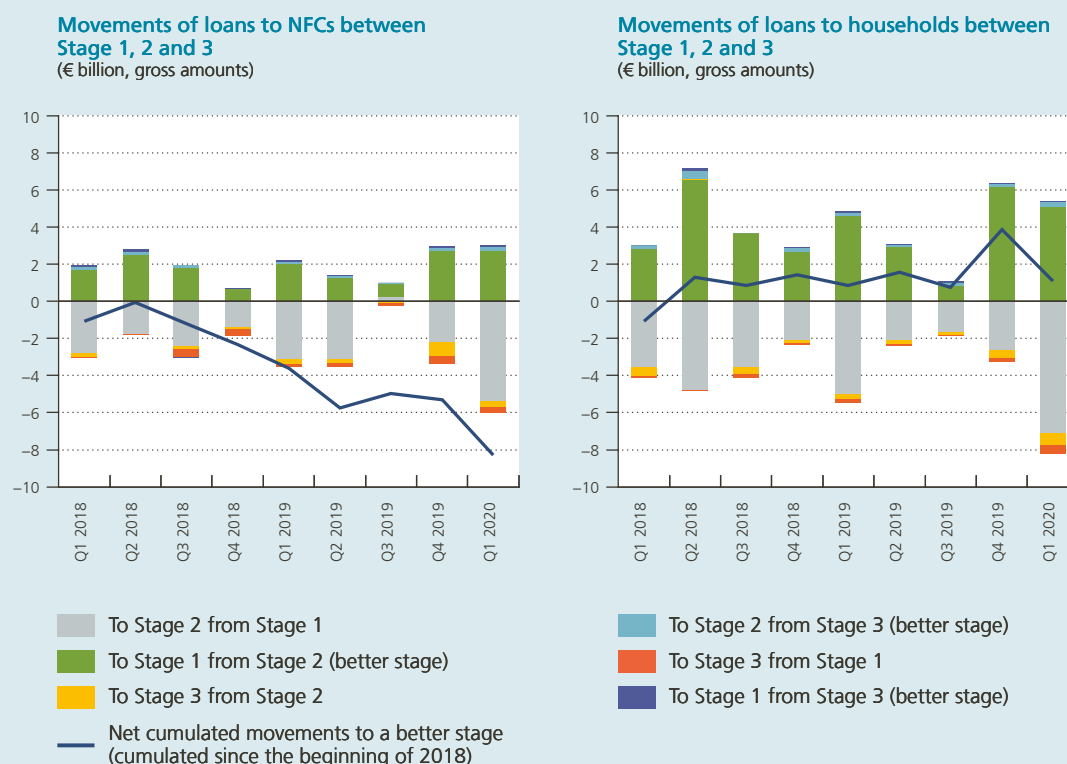
### Impairments and provisions under IFRS 9

Since the introduction of the International Financial Reporting Standard 9 for financial instruments (IFRS 9) in 2018, impairments and provisions must be calculated based on expected rather than incurred losses, as was the case under the preceding standard IAS 39. Under IFRS 9's "expected credit loss" (ECL) impairment framework, banks should reflect the impact of the past, current and future economic conditions in their loan portfolios and adjust provisions if conditions deteriorate. This is a more forward-looking approach which aims to recognise credit losses in a timelier fashion and present the risks on banks' balance sheets in a more transparent way.

Under IFRS 9, loan impairments are recognised in three stages. When a loan is originated or purchased (and as long as it is not credit-impaired), ECLs resulting from default events that are possible within the next 12 months have to be recognised (12-month ECL) and a loss allowance is established for this asset in stage 1. If a loan's credit risk has increased significantly since initial recognition and is not considered low, lifetime ECLs have to be recognised and the loan moves to stage 2. If the loan's credit risk increases to the point where it is considered credit-impaired, the asset moves to stage 3. As in stage 2, lifetime ECLs have to be recognised and, in addition, interest revenue has to be calculated based on the loan's amortised cost (i.e., the gross carrying amount less the loss allowance).



## Loan classification changes according to IFRS 9 categories



In response to the coronavirus crisis, regulators provided clarity to the EU banking sector on how to handle the accounting treatment in a consistent manner. The flexibility embedded in the accounting and regulatory frameworks is to be fully used by institutions to help maintain soundness through the crisis and provide critical functions to the economy. EBA and European Commission clarified that there is no strict automatism in the application of IFRS 9 and thus that the temporary inability of a borrower to repay its debt because of the pandemic should not trigger an automatic increase in ECL provisions. Similarly, the assessment of a significant increase in credit risk should be based on the remaining lifetime of the loan and the unlikelihood to pay, rather than on automatisms based on sudden increases in the probability of default due to the coronavirus crisis or the application of private or statutory moratoria<sup>1</sup>.

Based on the prudential reporting data for the first quarter of 2020, first signs of increasing migration of loans to non-financial corporates (NFCs) from stage 1 to stage 2 have been observed. Within the NFC loan portfolio, € 5.4 billion of loans moved from stage 1 to stage 2, while only € 2.7 billion moved from stage 2 to stage 1. Across all 3 stages, a net € 3.0 billion moved to a worse stage in the case of NFC loans. For loans to households, the comparable figure was € 2.8 billion. While the migration of assets to stages with lower credit quality remained limited, based on the data at the beginning of 2020, a larger effect could become visible in the coming quarters when the severity of the coronavirus crisis will become clearer.

<sup>1</sup> See the EBA statement on the application of the prudential framework regarding Default, Forbearance and IFRS 9 in light of COVID19 measures and the European Commission's communication on the banking package to facilitate lending to households and businesses in the EU.

## 2. Insurance sector

The Belgian insurance sector entered the coronavirus crisis weakened by the low interest rate environment. Still, the relatively strong starting position of the Belgian insurers will help them to cope with the challenges posed by the sanitary crisis and its impact on the economic and financial operating environment. This satisfactory starting point was in no small part the result of the pro-active measures that the insurers, encouraged by the Bank as their regulator, have taken over the past few years to prepare and come to terms with the challenges posed by the long period of low interest rates. These changes pertained in particular to the management of guaranteed-return life insurance contracts and investment portfolios. Although future prospects have grown dimmer, due, on the one hand, to the lower-for-longer interest rate environment and, on the other hand, to the coronavirus crisis, the Belgian insurance sector is well placed and resourced to tackle these challenges.

### 2.1 Challenges faced by the Belgian insurance sector

#### *As the low interest rate environment puts pressure on solvency and profitability ...*

In 2019, the low interest rate environment continued to impact Belgian insurers, mainly through the balance sheet and the income channels. For the balance sheet transmission channel, the downward shift in interest rates, exacerbated in the third quarter of 2019, resulted in an increase of both insurers' liabilities and assets through their marked-to-market valuation. The magnitude of the overall final effect on own funds, and therefore on the solvency position, depended on the balance sheet and duration characteristics of each individual insurance company, but a continuing deterioration of the solvency capital requirement (SCR) ratio for all types of business, i.e. life, non-life and mixed companies, was clearly observed in the first three quarters of 2019. However, with an SCR ratio amounting to 202 % at the end of 2019, the Belgian insurance sector remained well capitalised and stayed within the range of the euro area average.

Regarding the income channel, given that Belgian insurers mainly hold fixed-income assets (approximately 68 % of the sector's investment portfolio in 2019), the low interest rates continued to weigh through the reinvestment risk, particularly for life insurers. Indeed, as the maturity of their assets tends to be shorter than the (long) duration of their contractual obligations, significant amounts of earned coupons and matured bonds are rolled over or reinvested in bonds with lower yields than those that came to maturity. This reinvestment risk puts pressure on life insurers' investment income and therefore, on their profitability. As shown in Chart 18, the investment return in the life insurance sector, which is still much higher than the average guaranteed rate of return on the stock of life insurance contracts, is clearly declining at a faster pace since 2017 and the spread between investment returns and the average guaranteed rate is therefore narrowing since then (see also Table I3 in Section 3).

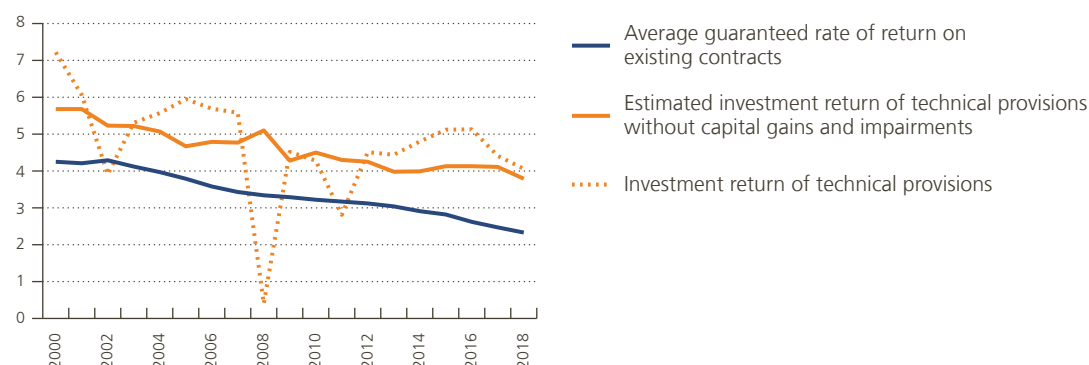
Mitigating actions conducted by life insurers such as the buy-back schemes or run-offs of class 21 contracts with high guaranteed rates of return as well as the introduction of new contracts featuring significantly lower guaranteed rates of return, led to a gradual decline of the average rate offered on the stock of life insurance contracts (from 2.47 % by the end of 2017 to 2.31 % by the end of 2018), which in turn helped to maintain a positive gap between the investment returns and the guaranteed rates. However, the long-lasting character of the low rate environment, coupled with the combination of a negative duration gap and a long-term duration of liabilities, presents a significant challenge for life insurers' medium to long-term profitability, putting under pressure their current business model (see also Section 2.2 and the paragraph dedicated to profitability).

In respect of investment trends, in 2019 Belgian insurers pursued their on-going rebalancing of the investment portfolio towards alternative assets which are riskier and/or less liquid but are believed to generate higher

Chart 18

### Life insurance guaranteed and investment returns

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



Source: NBB.

returns despite the low interest rate environment. Exposures to loans and mortgage loans continued to rise, while there was an increased appetite for equity, thanks to the good performance in 2019 on the global stock markets.

Regarding asset quality, preliminary analysis performed by the Bank has shown a trend towards slightly deteriorating credit quality in the corporate bonds newly purchased by life insurers, as compared to the composition of their existing stock (for further details, see Section 2.2 and the paragraph dedicated to the investment portfolio).

#### **... the coronavirus crisis is tantamount to a double-hit stress test scenario ...**

With the outbreak of the coronavirus crisis in March 2020, the above-mentioned effects incurred from the low interest rate environment have been further exacerbated. Lower valuations on the stock markets and the widening of several EU Member States' bond spreads have exerted a direct negative impact on insurers' balance sheet. However, with the above-mentioned relatively comfortable solvency position, the Belgian insurance sector was very well capitalised at the onset of the pandemic.

Due to this pandemic and its related economic impacts, insurers face a so-called "double-hit" shock stemming from, on the one hand, the fall in asset prices and, on the other hand, the low interest rates. Both factors are simultaneously affecting the asset and liability sides of the balance sheet. As a reminder, a "double-hit" stress test scenario was developed at European level in 2016 by the European Insurance and Occupational Pensions Authority (EIOPA), jointly with the European Systemic Risk Board (ESRB). This scenario simulated an environment that combined a fall in the risk-free yield curves with significant shocks to key asset categories in insurers' investment portfolio.

At Belgian level, this simulation led in 2016 to, on average, a 36% fall of the sector's eligible own funds. However, the main conclusion at that time was that the volatility adjustment mechanism had a substantial positive impact on individual and sectoral SCR ratios. This is exactly what has been observed during the first weeks of the coronavirus crisis: the volatility adjustment mechanism clearly softened the negative impacts on the SCR ratios stemming from the widening of sovereign bonds spreads (for further details, see Section 2.2 and the paragraph dedicated to solvency developments).

*... with a key role for insurers in providing support to the private sector*

In the first weeks of March, like the banking sector, the Belgian insurance sector decided to help alleviate the socio-economic impacts of the coronavirus crisis through a series of measures, including the possibility of granting a moratorium to its clients. For natural persons experiencing financial difficulties, the sector deferred some types of group and individual insurance premiums payments as well as repayments on mortgage loans. Premium payment deferrals were also granted to companies hit by the crisis.

**BOX 3**

## **Package of measures taken by the insurance sector in March and April 2020**

1. For natural persons in temporary unemployment because of the coronavirus crisis:

- The insurance sector engages itself to extend cover, with no further formalities, for pension, death, disability and hospitalisation under group insurance (contracted by employers) for all persons in temporary unemployment. The payment of premiums due by employers in this context is deferred until 30 September 2020. It is up to the employers to decide whether or not to use this possibility.
- Interest and capital repayments on mortgage loans contracted with insurance companies, as well as payment of premiums on mortgage protection insurance, are suspended until 30 September 2020, provided that insurance policyholders can prove that they are facing financial difficulties because of the coronavirus crisis. This agreement is fully in line with that concluded by the government with the banks. In addition, a payment deferral until 30 September will also be able to be obtained for home insurance premiums linked to mortgage loans falling due between 30 March and 30 September 2020. This last provision only applies to persons in unemployment.

2. For companies hit by the coronavirus crisis:

- Companies that are forced to suspend their activities in accordance with the public authorities' request will be able to obtain a payment deferral, through an agreement with their insurer, for all premiums falling due between 30 March and 30 September 2020.
- As for loans granted to companies, the insurers will also follow the conditions already set for the banking sector, namely a loan repayment delay (interest payments and capital repayments) until 30 September 2020.

3. In order to maintain credit lines at an adequate level, credit insurers have agreed on a state-aid system with the federal government. Under the memorandum of understanding, the government offers a reinsurance programme to insurance policyholders domiciled in Belgium that are insured with a credit insurance institution operating in this country. The reinsurance programme is being implemented between Credendo – Export Credit Agency and the sector. The aim is to avoid



unnecessary suspension of the existing credit limits covered by the reinsurance programme. Credit insurers will undertake to maintain the current credit limits intact as far as possible, until the end of 2020. In return for this commitment, Credendo – Export Credit Agency, acting for the State, agrees to reinsure the risks underwritten by the said credit insurers operating in Belgium. The reinsurance programme provides for the insurers to continue to cover a substantial part of the compensation, the percentage of which varies according to the claims ratio. The reinsurance programme also provides for the progressive sharing of premiums between the insurer and Credendo, again depending on the claims ratio.

***The Bank adopted measures allowing insurers to focus all their resources on managing the crisis, while closely monitoring developments***

From its side, the Bank – as competent supervisory authority – immediately adopted a range of measures to ensure that insurers could focus all their resources on managing the crisis. In this connection, the Bank decided to cancel the 2020 stress test, to limit on-site inspections and to defer supervisory guidelines and circulars in the pipeline at the onset of the crisis, as well as their implementation. In the same way, several regulatory reportings were postponed while a specific quantitative and qualitative *ad hoc* reporting was put in place by the Bank in order to assess the impact of the coronavirus crisis at individual and sectoral level.

The Bank also issued a recommendation to the sector aiming at, *inter alia*, temporarily suspending dividend distributions, at least until October 2020 (see also Section 2.2 and the paragraph dedicated to profitability) and gave further guidance on how to perform the valuation of assets traded in inactive markets.

From an operational perspective, the Bank encouraged the supervised insurance companies to take the necessary actions in order to ensure their ability to maintain core operations during the crisis.

Thanks to the above-mentioned *ad hoc* reporting scheme, the Bank was able to quickly assess developments on a regular basis. Solvency positions at individual and sectoral levels were put under scrutiny, especially for the companies whose SCR ratio reached a level close or below the 100 % prudential threshold, even temporarily. The impacts on investment portfolios as well as the liquidity positions were also carefully monitored by the Bank (see Section 2.2 for further details).

## **2.2 Main developments in the Belgian insurance sector**

This section provides an overview of the main results recorded by the Belgian insurance sector in 2019 and early 2020, in terms of activity, risk exposure, profitability, liquidity and solvency. Developments in the key aggregates of the life and non-life insurance activities are reviewed in a first subsection. This is followed by a stock-take of changes in the investment portfolio in a second subsection. The third subsection summarises the main results for profitability, liquidity and solvency.

In each subsection, relevant and/or expected impacts stemming from the coronavirus crisis are also described, to the extent possible, given the available quantitative and qualitative data at the cut-off date.

### Premiums, claims and combined ratio (based on Solvency II quarterly data)

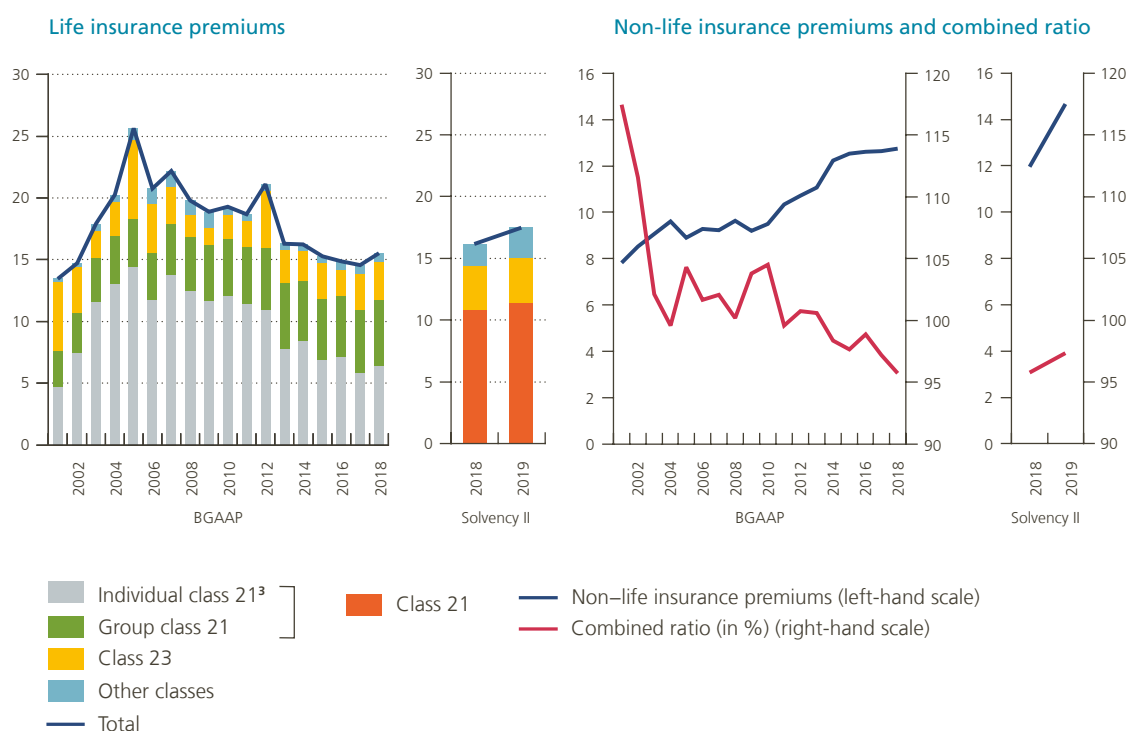
In 2019, gross written premiums amounted to € 36.7 billion, a strong increase from the € 31.1 billion recorded in 2018. This increase mainly reflected the market entry of a few foreign non-life insurers, which transferred their activities to Belgium in preparation for Brexit. These companies, which mostly operate in markets outside Belgium and have particular business models, are not active on the same markets as the other Belgian non-life insurance companies. Using a constant reporting scope (i.e. without the inclusion of these companies), gross written premiums amounted to around € 32.7 billion, up 5 % from 2018.

In the non-life insurance sector, net earned premiums amounted to € 14.7 billion in 2019, up 23 % from 2018 (Chart 19). This surge relative to the year-earlier figure (€ 11.9 billion) mostly reflected the above-mentioned market entry of foreign non-life insurers but also a strong increase in non-life premiums reported by a reinsurance company which has been part of the reporting scope since 2018 but developed its intra-group activities in 2019. When excluding these companies, premiums stayed fairly stable in 2019 at approximately € 11.9 billion.

Chart 19

#### Premiums<sup>1</sup> and combined ratio<sup>2</sup>

(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.

As shown in Chart 12 in Section 3, premiums stemming from vehicle-related insurance (i.e. compulsory motor vehicle liability and other motor insurance) still represented the largest share of non-life premiums, namely 32 % of total premiums in 2019. Fire and property damage insurance ranked second, with 22 % of total premiums.

In 2019, net claims incurred by the non-life insurance sector jumped by an annualised 31 % to €8.8 billion, mainly because of the market entry of the above-mentioned companies but also because of a jump in claims reported by the above-mentioned reinsurance company. When excluding these companies from the scope, net claims amounted to €6.9 billion, up 2.4 % compared to 2018.

The combined ratio of the non-life insurance market – which is defined as the ratio of claims and expenses over total earned premiums – reached 97.4 % in 2019, up from 95.8 % in 2018 (Chart 19). This upward trend was mainly driven by the previously mentioned changes in the reporting scope.

In the first weeks of the coronavirus crisis, Belgian non-life insurers started simulating different scenarios, based on a range of underlying different assumptions, aimed at assessing, *inter alia*, the impact of the sanitary crisis on their future premiums and claims.

From a general point of view, with respect to the non-life insurance premiums, a decrease can be expected due to the economic downturn. In addition, for the people in temporary unemployment due to the coronavirus crisis, the moratorium decided by the insurance sector will lead to a premium payment deferral of six months for the fire and property damage insurance related to mortgage loans.

With respect to the non-life insurance claims, the impact of the coronavirus crisis could be more nuanced. On the one hand, pandemic risk is often excluded from the contract terms. On the other hand, companies' internal, but also external mitigation factors (such as the lockdown decided by the Belgian government) certainly played a role. It can be expected that the claims for some non-life business lines will be negatively impacted (such as claims related to trade credit, medical expenses, income protection, travel cancellation etc.), but reinsurance programmes will certainly help to mitigate this impact. Other non-life business lines, such as vehicle-related insurance policies, conversely, could register a positive impact on their claims, at least during the lockdown period.

With respect to trade credit insurance, while this segment will certainly suffer from reduced trade volumes and increased defaults due to the slowing economic activity, the potential negative impacts are expected to be mitigated by the federal government's state reinsurance programme described in Box 3.

According to the Solvency II supervisory data for the first quarter of 2020, net earned non-life insurance premiums slightly increased relative to the level recorded in the same period in 2019 (+ 4 %). However, strong disparities were noticeable between lines of business (see Chart 20). Premiums related to motor liability and travel assistance registered a decrease in the first quarter of 2020 (respectively –15 % and –7 %) while premiums for other categories rose.

With respect to the net claims, the first quarter data show a slight decrease (6 %) in comparison with the first quarter of 2019. Again, results vary according to business lines. Claims related to motor liability and general liability were down 35 % and 24 % respectively, while claims for fire and property damage as well as medical expenses were up 14 % and 8 %.

At this stage, available data does not reflect the full impact of the sanitary crisis on the non-life insurance premiums and claims and forthcoming developments will be recorded in the Solvency II supervisory reportings with a certain time lag. More clarity on the coronavirus impact is expected in the next quarters.

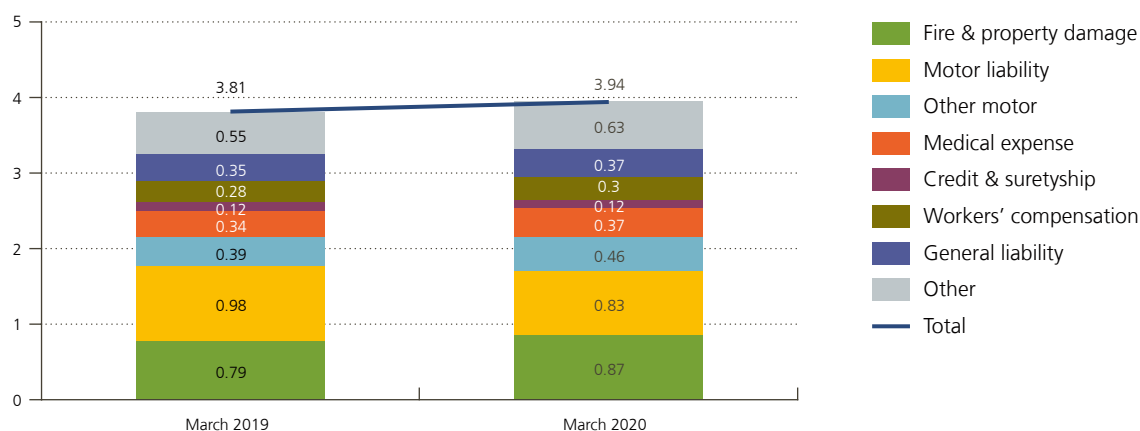
Turning to the life insurance sector, gross written premiums reported under the Solvency II framework rose by 8 % in 2019, reaching €17.5 billion (Chart 19). This rebound in demand for life insurance products, which already started in 2018 after several years of decline, was partly due to a modest revival in customer interest for



Chart 20

### Breakdown of non-life insurance net earned premiums

(non-consolidated data, in € billion)



Source: NBB.

class 21 contracts (i.e. contracts with guaranteed rates of return), for which gross written premiums amounted to € 11.4 billion (up 6 % from 2018). Although these contracts have become less attractive due to the low interest rate environment affecting the level of the guarantee being offered, this slight recovery may be explained by Belgian households' risk aversion and their preference for low-risk investments. The shortage of more profitable alternative investments for households no doubt also played a part.

For class 23 contracts – contracts with non-guaranteed returns based on the performance of investment funds in which the premiums are invested – the rebound in demand recorded in 2018 did not continue in 2019. Indeed, the gross written premiums for these contracts remained stagnant at approximately € 3.6 billion. This was rather remarkable as global stock markets posted their best year since the aftermath of the 2008 financial crisis.

Similar to the non-life insurance sector, the coronavirus crisis is expected to affect the amount of life insurance premiums and claims. On the premiums side, a distinction has to be made between group and individual life insurance. Premiums related to group insurance could be negatively impacted by a higher level of business bankruptcies while, on the other hand, the moratorium decided by the insurance sector could lead to a six-month premium payment deferral for the group insurance coverage of people temporarily furloughed due to the coronavirus crisis.

Premiums for individual class 21 contracts, despite the low interest rate environment, could benefit from the previously mentioned risk aversion of Belgian households. Premiums for individual class 23 contracts, conversely, could further decline due to the high volatility on global stock markets seen in the first half of 2020.

With respect to the claims, the expected rise in group death benefits and death insurance benefits related to mortgage loans could be mitigated by the fact that coronavirus fatalities are mostly concentrated in the elderly population, affecting people without a mortgage loan and whose individual and group life insurance contracts already expired at their retirement age.

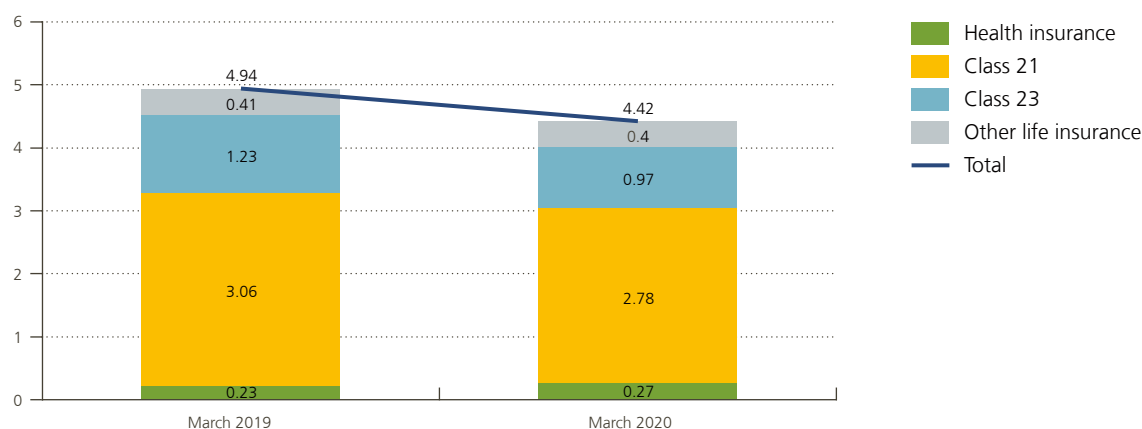
Finally, potential increases in surrenders for current life insurance contracts are not excluded.

According to the Solvency II supervisory data for the first quarter of 2020, the gross written premiums recorded for class 21 and class 23 life insurance decreased by 9 % and 21 % respectively in comparison with the same

Chart 21

### Breakdown of life insurance gross written premiums

(non-consolidated data, in € billion)



Source: NBB.

period in 2019 (Chart 21). Disparities were observable among insurance companies, some of them being more negatively impacted than others. Premiums for health insurance, conversely, were on the rise with an increase of 14 % in comparison with the first quarter of 2019.

With respect to the gross life insurance claims, a strong rise was recorded for health insurance (24 %) but also for class 23 life insurance (27 %) in comparison with one year earlier.

For the same reasons as those described above for the non-life insurance sector, it is too early at this stage to assess the full effects of the coronavirus crisis on the premiums and claims recorded by the life insurance sector. More insights at individual and sectoral levels are expected in the next quarters.

### Investment portfolio

In 2019, insurers' investment portfolio (excluding investments related to class 23 contracts) reached € 297 billion, a net rise in comparison to the € 274 billion recorded at the end of 2018. As shown in the left-hand panel of Chart 22, 68 % of this investment portfolio – or approximately € 202 billion – was composed of government and corporate bonds.

Government bonds remained by far the largest asset class within the investment portfolio, with € 141 billion invested at the end of 2019 (i.e. 48 % of the overall portfolio). This share, down from 50.5 % in 2016, 49.6 % in 2017 and 48 % in 2018, remained rather constant in 2019.

As a reminder, while the decrease from 2016 to 2017 was mainly due to a rebalancing of insurers' portfolios (from risk-free to more risky assets), the further decline in 2018 was due to a negative price effect resulting from slightly rising interest rates and widening spreads at the end of 2018. In contrast, the stagnation recorded in 2019 was mainly due to a positive price effect resulting from decreasing interest rates (see also the right-hand panel of Chart 22).

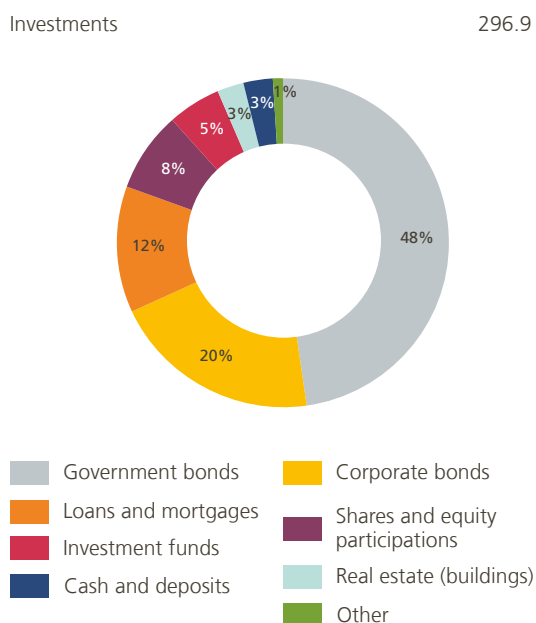
The share invested in government bonds by Belgian insurers remained relatively high in comparison with the European average of 23 %. The government bond portfolio still exhibited a strong home bias with approximately 53 % of government bonds being domestic ("insurance-sovereign nexus"). The remaining part of the portfolio

Chart 22

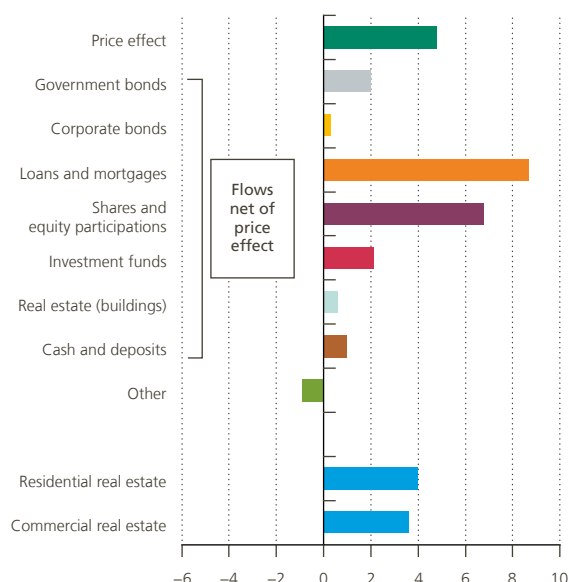
## Investment portfolio, excluding unit-linked assets

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

### Investment portfolio (end 2019)



### Changes since end 2017



Source: NBB.

was invested in sovereign bonds issued by euro area countries, particularly France (13%), Spain (5.4%), Germany (4.7%) and Italy (4.5%) (see also Chart I6 in Section 3).

The corporate bond portfolio, which amounted to approximately €61 billion in 2019 (i.e. 20% of the total investment portfolio), was mainly concentrated in the banking, manufacturing and electricity and gas sectors, which together accounted for around half of the portfolio exposures (further details are available in Chart I7 in Section 3).

While the part dedicated to the electricity and gas sector has been decreasing over the last few years (from 13% in 2016 to 10% in 2019) – which could be interpreted as a sign of a deliberate decision to reduce investments in carbon-related sectors – the part dedicated to the construction and real estate activities sector expanded (from 6% in 2016 to 10% in 2019).

By the end of 2019, 30% of the corporate bond portfolio was exposed to sectors directly impacted by the coronavirus crisis such as transportation of passengers (€193 million), accommodation (€51.5 million), food and beverage service activities (€142 million), construction and real estate activities (€6 billion), art and entertainment (€22 million), wholesale and retail trade (€506 million) and manufacturing (€11.3 billion). With such an exposure, which does not take into account other sectors which could be hit by the crisis at a later stage through a second-round effect, a third of the sector's corporate bond portfolio could be at risk through potentially higher probability of credit defaults but also through rating downgrades triggered by credit rating agencies.

The banking sector exposures amounted to 24% of the corporate bond portfolio at the end of 2019, with 61% of these bonds being issued by banks located in the euro area and 25% by banks located in the US and

in the UK. 9 % of these bank bonds were subordinated bonds, meaning that they have a lower priority ranking than the issuer's senior bonds and other higher-ranking claims in the event of a recovery or a resolution. While this exposure may seem rather high, Belgian insurers' exposures towards banks, as a percentage of their total investments amounted to 8.5 % at the end of 2019, as reported by EIOPA. This exposure is one of the lowest in the European Economic Area.

Regarding corporate bonds' quality, nearly 85 % of the portfolio had an investment-grade rating (i.e. a credit rating of at least BBB-), with a substantial concentration in the BBB category (see below). However, an analysis pertaining to life insurers' gross purchases of corporate bonds in the third quarter of 2019 revealed a deteriorating credit quality trend with a slightly higher proportion of newly bought bonds with a rating just above the investment-grade threshold. This is an evident sign of a search for yield behaviour in response to the low interest rate environment (see also the following paragraphs).

As the coronavirus crisis is generally expected to lead to a widespread downgrading of corporate bonds over time, the stock of corporate bonds with a BBB rating, i.e. bonds which are near the limit of the investment-grade threshold and which represented 34 % of the corporate bond portfolio by the end of 2019, is a particular risk to be monitored as a rating downgrade would take these bonds into the speculative-grade category. Downgrades would result in asset valuation losses and ultimately require insurers to hold an increased amount of solvency capital on their balance sheet.

According to simulations performed by the Bank (under a range of assumptions and caveats), the (unexpected) extreme scenario of a full rating downgrade of the BBB-rated portfolio to non-investment grade and of the A-rated portfolio to a BBB-rating could imply a rise of 4.7 % in solvency capital requirements at sector level (equal to an extra amount of € 1 billion in required regulatory capital).

As depicted in the left-hand panel of Chart 22, besides these investments in government and corporate bonds, the remainder of the insurance sector's investment portfolio – i.e. 32 % of the total (€ 95 billion) – consisted of a series of alternative assets that are riskier and/or less liquid but are expected to generate higher returns and/or improve risk diversification in the low interest rate environment. Due to their risk profile, these assets could be more sensitive to asset value shocks, as witnessed in previous financial crises. At sector level, the part dedicated to these alternative assets in the investment portfolio has increased over the last few years, up from 27 % in 2016.

The right-hand panel of Chart 22 illustrates the shifts in investment asset allocation between 2017 and 2019, adjusted for the price effect. As insurers' balance sheets are expressed at market values under the Solvency II framework, all portfolio value changes break down into 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.

This chart does not include data for early 2020 and therefore does not capture the first impacts of the coronavirus crisis on the potential shifts in the investment portfolio. However, from preliminary analysis conducted at sector level thanks to the *ad hoc* reporting scheme, it appeared that negative variations were recorded for almost all asset classes during the first weeks of the crisis. The equity portfolio and to a lesser extent the corporate bond portfolio recorded the highest negative impact reflecting sales from insurers (i.e. volume effect), due to the high uncertainty registered in the financial markets but also to the marked-to-market valuation (i.e. the price effect).

Finally, with respect to the (mortgage) loans portfolio, the absence of negative variation in the first weeks of the crisis could probably be explained by a marked-to-model valuation approach, which did not yet reflect the worsening of the economic situation and for which repricing is conducted with a certain time lag. As mentioned in section 2.1, the Bank gave guidance to the sector on how to perform the valuation of assets traded in temporarily inactive markets.

Turning back to the shifts recorded between 2017 and 2019, Chart 22 shows that the amount invested in newly bought government and corporate bonds in this period was rather low in comparison to the amount invested in shares and equities, loans and mortgage loans as well as real estate. With respect to shares and equities, the significant rise in volume was, on the one hand, attributable to the inclusion of a reinsurance company in the reporting scope in 2018, whose portfolio mainly consists of participations (€ 5.8 billion) and, on the other hand, due to the fact that equity was particularly attractive in 2019, as global stock markets posted their best year since the global financial crisis.

The two other reallocations, i.e. from bond portfolios to (mortgage) loans and real estate, reflected insurers' ongoing investment portfolio rebalancing in favour of less liquid assets. These developments are described in more detail in the next paragraphs.

Belgian insurers' exposure to loans and mortgage loans grew continuously in recent years and reached € 36.8 billion at the end of 2019, representing 12.4 % of the total investment portfolio (excluding class 23 investments). With the notable exception of the Netherlands, where this exposure reached approximately 21 % at the end of 2019, the Belgian figure is an outlier compared to the European average of 4 %.

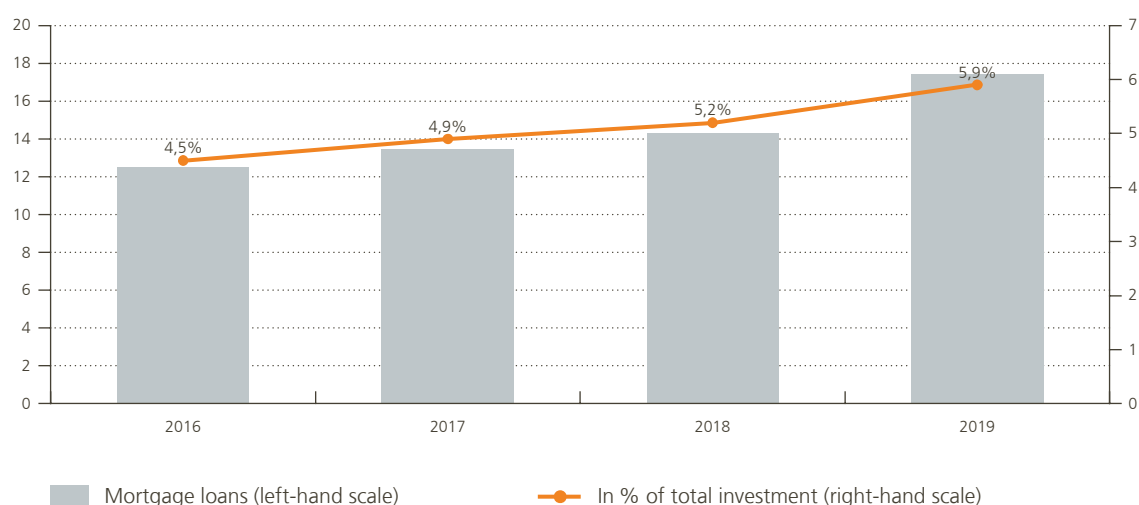
Residential mortgage loans – either issued by insurance companies themselves or bought in the secondary market – represented 47 % of the above-mentioned total (i.e. € 17.4 billion). This exposure to residential mortgages has increased every year. By the end of 2019, it amounted to 5.9 % of the sector's investment portfolio, up from 4.5 % at the end of 2016.

In addition to their higher returns and maturities that match their long investment horizons, insurers' interest in mortgage loans is also explained by the fact that they provide a strong positive diversification effect in the calculation of the solvency capital requirements. Indeed, as this asset class falls under the "counterparty default risk" module instead of under the "market risk module", it allows to exploit the low correlation between these two modules in the final SCR calculation, and ultimately, to achieve a decrease in the SCR amount required from an insurance company.

### Chart 23

#### Insurers' exposures to residential mortgage loans

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



Source: NBB.

Finally, a third explanation results from the fact that financial conglomerates – i.e. entities offering both banking and insurance services – may benefit, in terms of regulatory capital requirements, from including loans with loan-to-value (LTVs) below 80 % in their group's insurance segment balance sheet. The Bank is keeping a very close eye on this scope for potential regulatory arbitrage, for instance by using its annual survey that specifically focuses on mortgage loans. The latest data collected in April 2019 revealed that, at the end of 2018, portfolios of insurer-held mortgage loans accounted for around 6 % of total mortgage loans issued to residents and non-residents by the Belgian financial sector. The data also revealed that the portfolios' features and risk profiles are comparable to the banking sector's mortgage loan portfolios. To ensure fair competition, the Bank therefore decided to include insurance companies in the scope of its explicit supervisory expectations on mortgage loans (see Macroprudential Report for further details).

Turning to real estate investments, and more specifically to commercial real estate (CRE) investments, insurance companies' exposures amounted to 9.1 % of the sector's investment portfolio at the end of 2019 (i.e. € 27 billion), up from 7.7 % recorded at the end of 2016. This confirms that insurance companies are major domestic investors in the Belgian CRE market (for more information, see the Thematic Article "*Overview of the Belgian residential and commercial real estate market*").

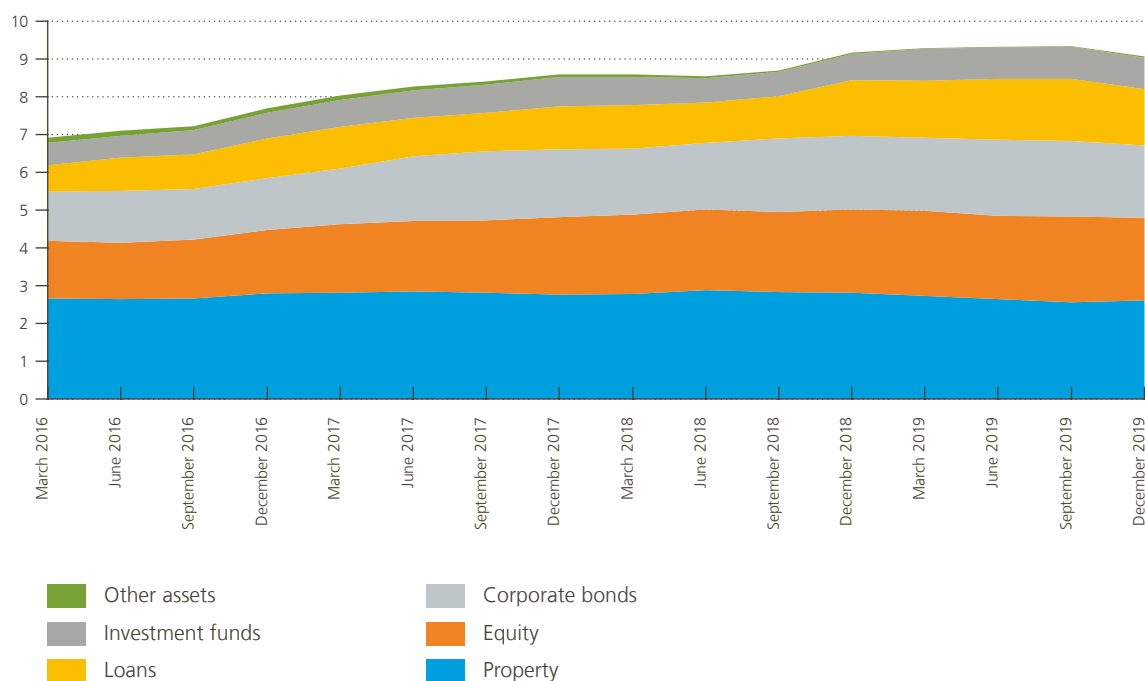
After several years of continuous growth, the CRE exposures slightly declined in the last quarter of 2019, for the first time in a while. This could be explained by the fact that European CRE markets were considered to be at the peak of a cycle in 2019, as reported by several CRE analysts.

As shown in Chart 24, insurers' CRE exposure consists *inter alia* of commercial loans (€ 4.5 billion), direct investments in property (€ 7.8 billion) and equities and bonds issued by companies operating in the construction and the real estate sectors (€ 12 billion).

**Chart 24**

#### Insurers' exposures to commercial real estate

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



Source: NBB.

## Profitability, liquidity and solvency

In 2019, the insurance sector recorded a net bottom-line profit of € 2.7 billion – equivalent to an accounting return on equity of 11.9% – that remained below the € 3.2 billion recorded in 2018 (see Chart 25). This total net profit was negatively influenced by two factors. The first factor was a deterioration by € 0.4 billion in the technical result of non-life insurance activities, mainly due to a narrowing gap between net premiums on the one hand and claims and expenses on the other hand. The second factor was a deterioration in the non-technical account (also by € 0.4 billion), which traditionally is a volatile component of total net profits.

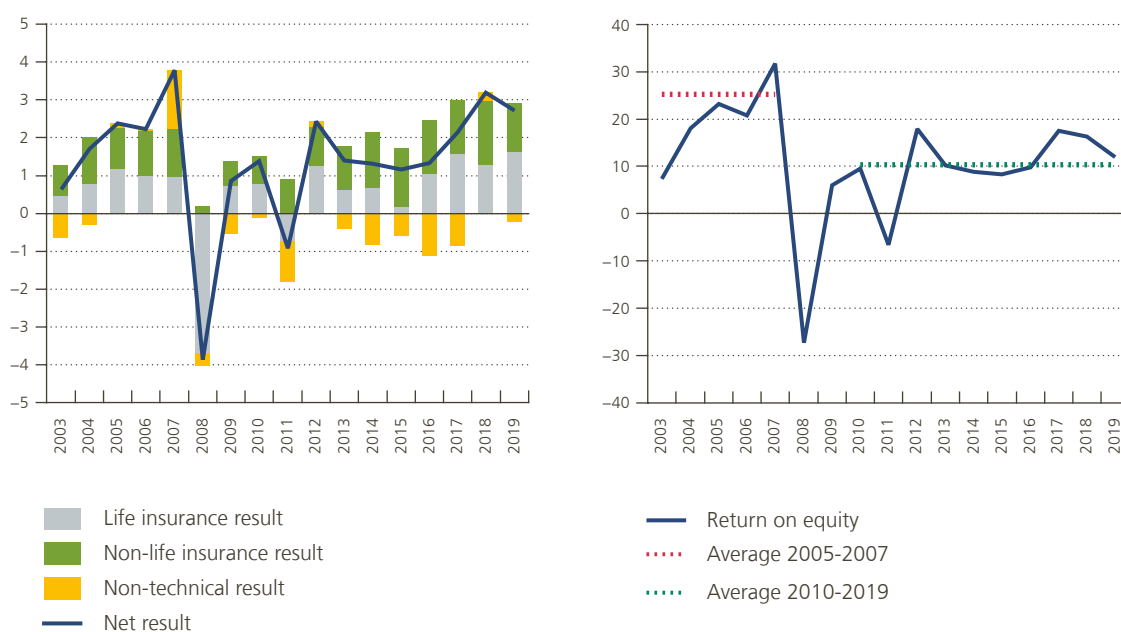
In contrast, the life insurance sector recorded a profit of € 1.6 billion, up € 0.3 billion from 2018. This increase in net profit was mainly due to a strong rise in the net readjustments on class 23 investments, and to a lesser extent to a slight improvement of the net investment income (excluding class 23 investments). However, 2019 was characterised by a strong decrease in the results of core life insurance activities in comparison to 2018 (see Table I1 in Section 3).

There is no doubt that the coronavirus crisis will weigh on the insurance sector's profitability in 2020. As already mentioned, at sector level, developments for premiums and claims are unclear at the current juncture as they will be significantly different from one business line to the other. The forthcoming economic downturn, the further extension of the low interest rate environment as well as developments in financial markets are expected to negatively impact the investment income, which was already under pressure. This issue will be particularly relevant for life insurers offering contracts with guaranteed rates. Their reflections on business model viability as well as other potential sources of income should therefore be pursued.

Chart 25

### Net results and return on equity

(non-consolidated end-of-period data, results in € billion, return on equity in %)



Source: NBB.

Table 4

**Main components of the solvency capital requirement (SCR) ratio**

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

	2016	2017	2018	2019	2020 Q1
Total eligible own funds	32.3	33.9	38.5	41.6	39.8
Solvency capital requirement	18.4	17.6	17.6	20.6	19.3
SCR ratio (in %)	176	192	219	202	206

Source: NBB.

In the context of the coronavirus crisis, liquidity risks which may arise in the life insurance sector were also carefully monitored by the Bank. Lower inflows could stem from decreasing premiums and investment returns as well as lower new business. On the other hand, higher outflows could *inter alia* stem from higher insurance claims in certain lines of business and from higher surrenders.

Data collected through the specific quarterly liquidity reporting shows that the liquidity position in the life insurance sector remained comfortable in March 2020, even if a discrepancy could be observed at individual level. A rise in surrenders was observed in the first quarter of 2020 (of 14 % in comparison with March 2019) while the ratio between liquid assets and liquid liabilities continued to experience a declining trend (from 360 % at the end of 2016 to 300 % at the end of March 2020).

Turning to solvency, Table 4 shows that the solvency capital requirement (SCR) ratio reached 202 % at the end of 2019. This good year-end solvency position was *inter alia* due to a slight increase in the risk-free interest rate curve in the fourth quarter of 2019, compared to the first three quarters of the year. Despite this good solvency position at sector level, the 2019 SCR ratio varied considerably from one insurer to the next, as individual solvency ratios ranged from 113 % to 617 % while the sector's median ratio amounted to 183 %.

During the first weeks of March 2020, the high volatility on global financial markets did not lead to a strong deterioration of the sector's solvency position (see below for further details). The negative impact on the SCR ratio at sector level accelerated somewhat in the following months, reaching 171 % at the end of April and 168 % at the end of May (down from 192 % at the end of March<sup>1</sup>), the lowest levels recorded for the Belgian insurance sector since the introduction of the Solvency II framework in 2016. For some individual companies, the SCR ratios sank close to or below the 100 % prudential threshold. However, these companies generally already had an initial weak SCR ratio before the crisis and all of them were already under close scrutiny by the Bank.

With the aim to safeguard their capital position in view of the coronavirus related economic uncertainties, the Bank – in its capacity of supervisory authority – recommended to each (re)insurance company to temporarily suspend all discretionary dividend distributions and share buy-backs, at least until October 2020. This recommendation, similar to that addressed to the banking sector by the Bank and the SSM, was aligned with the recommendation issued by EIOPA at the European level.

<sup>1</sup> The sectoral SCR ratio based on the *ad hoc* reporting scheme differs from that computed through Solvency II quarterly data (as reported in Table 4) because some companies are deliberately excluded from the scope when computing this SCR.



Turning back to the above-mentioned limited impact on SCR ratios during the month of March, the volatility adjustment mechanism, which is part of the Solvency II long-term guarantee measures, played a substantial role. As a reminder, with the volatility adjustment mechanism, (re)insurers are allowed to adjust the risk-free interest rate curve used to calculate their technical provisions by adding an artificial spread determined by EIOPA to mitigate the effect of short-term volatility of bond spreads on their balance sheet and ultimately on their solvency position. In March, the compensation effect of this mechanism for the Belgian insurers stemmed from the increase in the volatility adjustment (compared to previous periods) following the widening of bond spreads in several European countries. For several Belgian insurers, this increasing volatility adjustment even led to an overcompensation. Indeed, the artificial spread determined by EIOPA is based on a reference portfolio of assets which are allocated more towards financial corporate bonds and the so-called peripheral government bonds compared to the Belgian insurance sector portfolio. The latter is allocated more towards domestic government bonds and non-financial corporate bonds. Therefore, when bond spreads in the reference portfolio widen more than the spread of the bonds held by Belgian insurers, the volatility adjustment mechanism based on the reference portfolio artificially overcompensates the negative impact on Belgian insurers' balance sheet and SCR ratios. The overcompensation impact on each insurer's solvency depends, of course, on the structure of its balance sheet and the asset allocation of its investment portfolio. The effects of this mechanism led to the counterintuitive result of an increase in the solvency position of the sector in the first weeks of the coronavirus crisis and were reflected in the Solvency II supervisory data collected for the first quarter of 2020, as the SCR ratio at sector level reached 206 % at the end of March. In case of a significant increase of spreads on Belgian government bonds, the volatility adjustment mechanism would no longer have such a substantial overcompensation effect in the calculation of the SCR ratios.

### 3. Additional charts and tables for the banking and insurance sector

#### 3.1 Banking sector

Table B1

#### 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
	2012	2013	2014	2015	2016	2017	2018	2019	2019	
Net interest income	13.57	13.29	14.53	14.87	14.82	14.11	14.41	14.62	63.3	4.75
Non-interest income	4.49	7.05	6.16	7.10	7.62	8.94	8.25	8.48	36.7	3.66
Net fee and commission income <sup>1</sup>	4.48	4.97	5.34	5.87	5.63	5.62	5.58	5.57	24.1	2.08
(Un)realised gains or losses on financial instruments <sup>2</sup>	0.04	0.79	-0.06	1.17	1.50	0.86	1.22	0.53		-0.05
Other non-interest income	-0.03	1.28	0.88	0.06	0.50	2.46	1.46	2.39		1.63
Total operating income (bank product)	18.05	20.34	20.68	21.97	22.44	23.05	22.66	23.10	100.0	8.41
Total operating expenses (-)	13.01	12.36	12.66	12.87	13.11	13.42	13.89	13.74	59.5 <sup>5</sup>	4.32
Staff expenses (excluding commissions paid to bank agents)	6.86	6.53	6.52	6.54	6.47	6.74	6.84	6.77		
General and administrative expenses (including depreciation)	6.15	5.83	6.14	6.33	6.64	6.68	7.05	6.97		
Total impairments and provisions (-)	2.61	2.95	1.35	1.30	1.76	0.67	0.83	1.26		0.58
Impairments on financial assets at amortised cost <sup>3</sup>	1.99	2.31	1.30	1.15	0.90	0.41	0.61	1.05		
Impairments on other financial assets	-0.84	-0.00	0.00	0.02	-0.04	-0.07	-0.01	0.01		
Other impairments and provisions	1.46	0.64	0.05	0.13	0.90	0.34	0.23	0.20		
Other components of net operating income <sup>4</sup>	0.25	0.32	0.22	0.24	0.37	0.29	0.26	0.25		0.09
Net operating income	2.68	5.35	6.89	8.04	7.94	9.25	8.20	8.35		3.61
Tax and extraordinary profit or loss			-1.79	-1.22	-1.56	-2.64	-2.00	-1.78		
Total profit or loss on discontinued operations	0.00	0.00	0.00	-0.05	0.03	0.00	0.00	-		
Net profit or loss including minority interest	1.94	3.73	5.10	6.76	6.41	6.61	6.20	6.57		2.97
p.m. Net profit or loss (bottom-line result)	1.59	3.28	4.52	6.14	5.75	5.95	5.60	6.12		

Source: NBB.

<sup>1</sup> Including commissions paid to bank agents.

<sup>2</sup> 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.

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

<sup>4</sup> 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.

<sup>5</sup> This figure is the cost-to-income ratio of the Belgian banking sector.

Table B2

**Belgian banks' asset encumbrance in 2019**

(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	10.5	0.8	2.1	0	17.5	–	0.7	3.9	35.5	134
Repo transactions and other deposits (excluding central banks)	15.5	2.9	2	0.4	0.0	0.9	–	0.6	22.6	127
Issuance of covered bonds	0.2	–	32.1	0.4	0.1	2.8	–	–	35.6	134
Issuance of ABS	–	–	4.6	0.9	0.0	–	–	0.0	5.5	118
Central bank funding (of all types: TLTROs, repos)	1.1	0.6	9.4	6.5	0.0	6.1	–	0.0	23.7	127
Other sources of encumbrance	3.4	2.1	4.0	1.0	0.1	–	1.4	0.1	12.3	147
Total encumbered assets and collateral received	30.7	6.4	54.2	9.3	17.8	10.0	2.2	4.7	135.3	132
Asset encumbrance ratio (in %)	23.6	8.3	12.3				3.6	4.1	12.0	

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  $\frac{\text{total encumbered assets} + \text{total collateral received and reused}}{\text{total assets} + \text{total collateral received and available for encumbrance}}$ .

Here, as in the EBA methodology, assets are measured at the carrying amount and collateral is measured at fair value.

Table B3

**Belgian banks' funding structure and liquidity ratios**

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

	2015	2016	2017	2018	2019	2020 Q1
<b>Total liabilities</b>	<b>970</b>	<b>1 022</b>	<b>994</b>	<b>993</b>	<b>1 048</b>	<b>1 115</b>
<b>Deposits</b>	<b>702</b>	<b>725</b>	<b>736</b>	<b>745</b>	<b>797</b>	<b>851</b>
Central banks	16	23	29	26	26	46
General governments	22	24	26	27	27	27
Credit institutions	82	105	89	85	95	105
Other financial corporations	93	76	85	79	85	100
Non-financial corporations	148	133	132	140	149	157
Household deposits	340	364	374	389	415	417
<b>Debt securities issued</b>	<b>99</b>	<b>106</b>	<b>106</b>	<b>98</b>	<b>91</b>	<b>95</b>
Certificates of deposits	25	35	40	30	23	24
Covered bonds	21	24	23	28	26	29
Other debt securities issued	52	48	43	40	42	42
<b>Derivatives</b>	<b>72</b>	<b>67</b>	<b>49</b>	<b>43</b>	<b>51</b>	<b>59</b>
<b>Other liabilities<sup>1</sup></b>	<b>33</b>	<b>51</b>	<b>28</b>	<b>31</b>	<b>31</b>	<b>33</b>
<b>Equity</b>	<b>66</b>	<b>72</b>	<b>75</b>	<b>76</b>	<b>78</b>	<b>77</b>
<b>Liquidity coverage ratio (in %)</b>	<b>137</b>	<b>140</b>	<b>138</b>	<b>145</b>	<b>141</b>	<b>134</b>
<b>Customer loan-to-deposit ratio (in %)</b>	<b>90.8</b>	<b>94.9</b>	<b>95.5</b>	<b>97.5</b>	<b>95.9</b>	<b>94.6</b>
<b>Asset encumbrance ratio (in %)<sup>2</sup></b>	<b>12.0</b>	<b>11.6</b>	<b>12.5</b>	<b>13.0</b>	<b>12.1</b>	<b>14.4</b>

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  $\frac{\text{total encumbered assets} + \text{total collateral received and reused}}{\text{total assets} + \text{total collateral received and available for encumbrance}}$ .

Here, as in the EBA methodology, assets are measured at the carrying amount and collateral is measured at fair value.

Table B4

**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	
	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2019
Total loans	2.3	2.1	2.0	2.0	2.8	2.2	0.43	0.38	44.0	42.9	81.9
of which:											
Non-financial corporations	3.7	3.6	3.4	3.5	4.0	3.7	0.63	0.59	50.4	49.2	78.6
of which:											
SMEs	4.0	3.8	3.5	3.4	4.9	4.7	0.76	0.66	49.6	47.7	81.3
Loans collateralized by CRE	3.9	3.7	3.7	3.4	4.4	4.7	1.30	1.02	32.3	29.2	87.6
Households	2.3	2.0	1.5	1.5	5.0	3.6	0.55	0.46	33.1	29.0	88.4
of which:											
Residential mortgage loans	2.1	1.8	1.2	1.2	5.3	3.6	0.61	0.47	26.4	19.0	97.6
Credit for consumption	4.8	4.6	4.7	4.8	5.1	4.2	0.27	0.23	55.1	53.1	60.2

Source: NBB.

## 3.2 Insurance sector

Table I1

### Main components of the profit and loss account

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

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Life insurance technical result</b>	0.7	0.8	-0.7	1.2	0.7	0.7	0.2	1.1	1.4	1.3	1.6
Result of insurance activities	-8.0	-7.1	-4.8	-8.3	-8.2	-9.3	-8.3	-7.3	-6.1	-2.4	-9.0
Excluding adjustments for class 23	-6.0	-5.9	-5.4	-6.5	-6.9	-7.3	-7.8	-6.5	-5.0	-4.8	-4.7
Net investment income	8.7	7.8	4.1	9.5	8.9	10.0	8.5	8.4	7.5	3.7	10.6
Excluding adjustments for class 23	6.7	6.7	4.7	7.7	7.6	8.0	8.0	7.6	6.4	6.1	6.4
<b>Non-life insurance technical result</b>	0.7	0.7	0.9	1.0	1.2	1.5	1.6	1.4	1.6	1.7	1.3
Result of insurance activities	-0.4	-0.4	0.1	-0.1	-0.1	0.2	0.3	0.1	0.4	0.5	0.1
Net investment income	1.1	1.2	0.8	1.1	1.2	1.3	1.3	1.3	1.2	1.1	1.1
<b>Non-technical result<sup>1</sup></b>	-0.5	-0.1	-1.1	0.1	-0.4	-0.8	-0.6	-1.1	-0.7	0.2	-0.2
Net investment income	-0.7	0.2	-0.9	0.9	0.3	0.4	0.3	-0.2	0.4	1.0	0.7
Other results	0.2	-0.3	-0.2	-0.7	-0.7	-1.2	-0.9	-0.9	-1.1	-0.8	-0.9
<b>Net result for the financial year</b>	0.9	1.4	-0.9	2.4	1.4	1.4	1.2	1.3	2.3	3.2	2.7

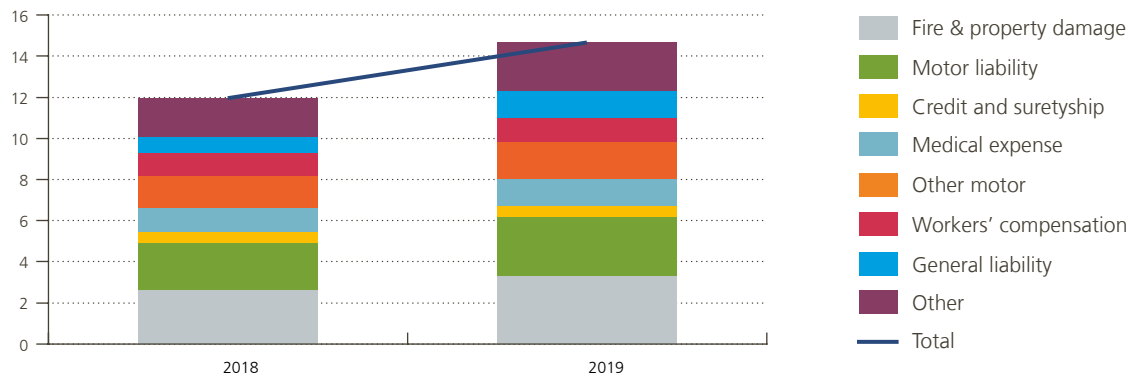
Source: NBB.

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

Chart I2

### Breakdown of non-life insurance net written premiums

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



Source: NBB.

Table I3

**Investment return and average guaranteed return in life insurance**

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

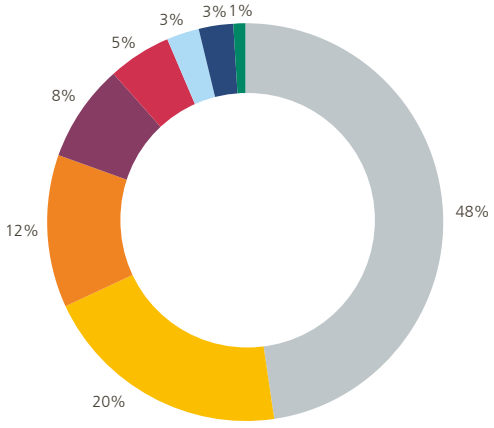
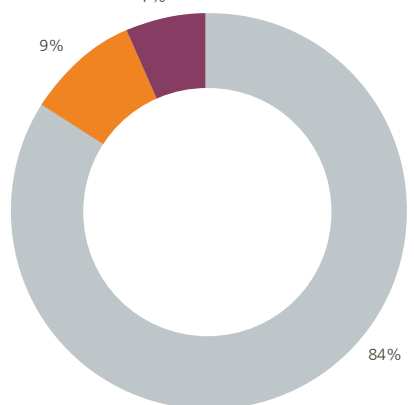
	2013	2014	2015	2016	2017	2018
Investment return of technical provisions covering guaranteed rate contracts (in %)	4.44	4.94	5.27	5.13	4.41	3.93
Estimated investment return of technical provisions without net impairments, net capital gains (in %)	3.94	4.07	4.24	4.11	4.11	3.67
Average guaranteed rate of return on existing contracts (in %)	3.04	2.91	2.82	2.62	2.47	2.31
■ group insurance	3.41	3.25	3.19	2.96	2.78	2.64
■ individual insurance	2.88	2.72	2.64	2.44	2.30	2.13
Yield gap	1.40	2.03	2.45	2.51	1.94	1.62
Flashing-light provision	4.1	5.6	7.6	7.6	7.5	7.5
Flashing-light rate (in %)	2.72	2.38	1.96	1.37	1.00	0.74

Source: NBB.

Chart 14

### Main components of the balance sheet

(non-consolidated data for the end of 2019, in € billion)

ASSETS	360.3	LIABILITIES AND OWN FUNDS	360.3
Investments, excl. unit-linked	296.9	Excess of assets over liabilities	38.2
		Technical provisions, excl. unit-linked	241.3
			
Assets held for unit-linked contracts	44.5	Technical provisions for unit-linked contracts	43.5
Other assets	18.9	Other liabilities	37.3

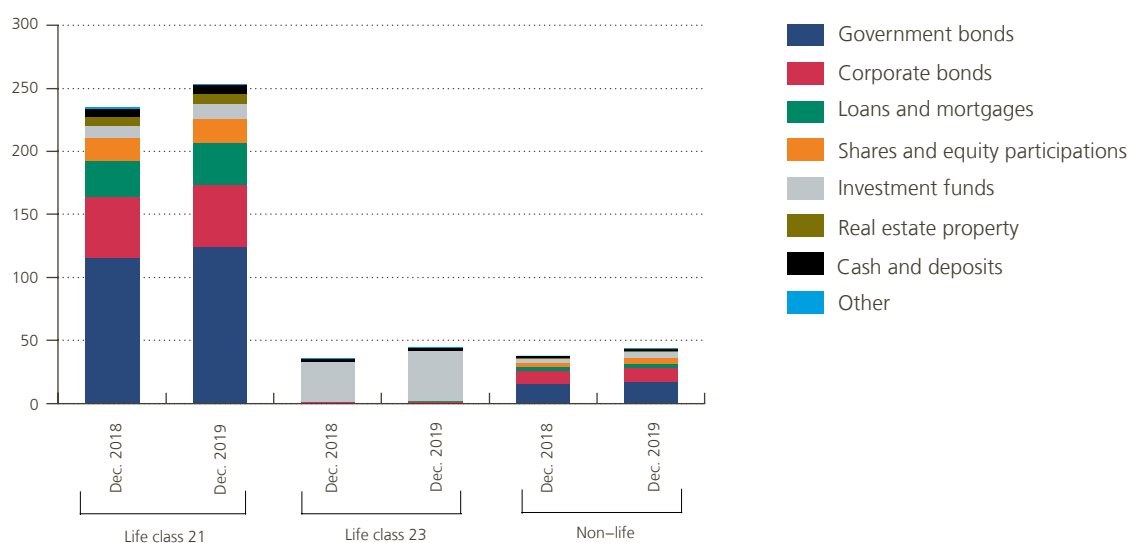
Source: NBB.



Chart 15

### Composition of the covering assets per insurance activity<sup>1</sup>

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



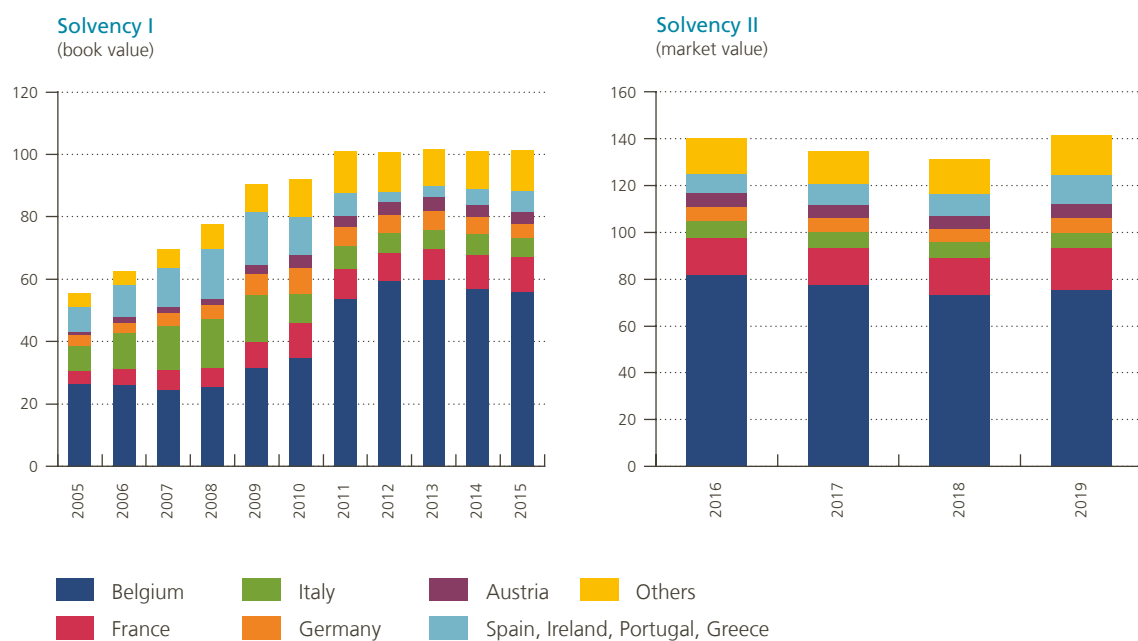
Source: NBB.

<sup>1</sup> Excluding reinsurance activities.

Chart 16

### Geographical breakdown of public sector bonds

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

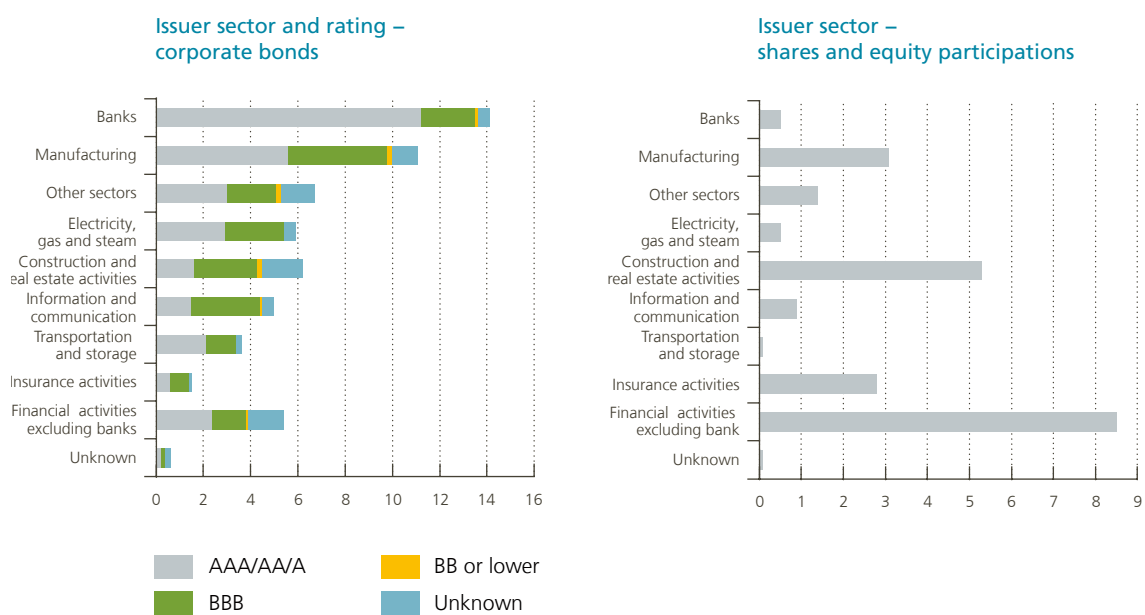


Source: NBB.

Chart 17

### Breakdown of corporate bonds and equity holdings by corporate subsector

(non-consolidated data for the end of 2019, in € billion)



Source: NBB.

## Thematic Articles



# Overview of the Belgian residential and commercial real estate market

Alexandra Jespers  
Helga De Doncker

## Introduction

This article reviews recent developments in the Belgian residential and commercial real estate markets in view of the significant role played by the real estate sector in the Belgian economy and in the Belgian financial system. As many past financial crises have shown, unsustainable developments in the residential or commercial real estate markets can also be the source of financial sector vulnerabilities and crises, requiring close monitoring and – if necessary – macroprudential measures to identify and address emerging imbalances. The key role reserved for real estate markets in financial stability analyses follows from its close interconnectedness with financial institutions, households and the real economy.

This article discusses residential and commercial real estate developments separately, but the two markets should be considered in parallel when analysing the risks for the financial sector. Residential and commercial real estate markets are in fact closely intertwined, so that vulnerabilities in one market can rapidly spill over to the other. This is especially the case when these markets are shocked by the same events, such as an economic recession, a rise in unemployment and corporate bankruptcies, or an overall change in the risk appetite of the main investors and credit providers in these markets. In this connection, while it is too early to fully assess the impact of the coronavirus crisis on the Belgian residential and commercial real estate markets, financial institutions should factor in the possibility that a number of real estate risks could materialise over the coming quarters. The collapse of economic activity in the course of 2020 and the potential long-run consequences of the public health crisis on the Belgian economy and financial system will undoubtedly shape future developments on the residential and commercial real estate market, and are likely to reverse some of the very dynamic developments observed in both markets in recent years. This in turn could give rise to higher than expected losses for investors and creditors.

The first section of this article reviews the situation on the Belgian residential real estate market, providing an update of similar analyses in the 2012, 2014, 2016 and 2018 Financial Stability Reports. It consists of 3 subsections. A first subsection is devoted to the physical housing market. Aspects discussed include house price growth, valuation of the residential real estate market, residential property supply and demand, and real estate transactions. The second subsection focuses on new mortgage loans and reviews the volumes of new loans, the level of mortgage interest rates, and developments in credit standards and commercial margins. The final section explains the vulnerabilities that are present in the outstanding household mortgage debt and some factors that mitigate them, and then discusses default rates which indicate the extent to which the vulnerabilities have materialised or not. Two boxes are also included: the first one gives an overview of the Bank's monitoring framework for domestic mortgage loans and the macroprudential actions taken, and the second one explains the moratorium established for mortgage borrowers in the context of the coronavirus crisis.

The second section of this article reviews developments in the Belgian commercial real estate market. This part first documents developments on the so-called physical market, focusing on transaction volumes, the relative importance of different types of domestic and foreign investors (and changes in that respect) and the heterogeneity between different subsegments of the commercial real estate market. The article then describes the Belgian financial sector's direct and indirect exposures to the commercial real estate market, distinguishing between a number of key participants such as the Belgian real estate investment trusts, insurance companies, pension funds and banks. This analysis shows that the Belgian financial system has continuously increased its exposure to the Belgian real estate market in recent years. The article concludes with an overview of the financial position of the main non-financial corporations active in the Belgian commercial real estate market.

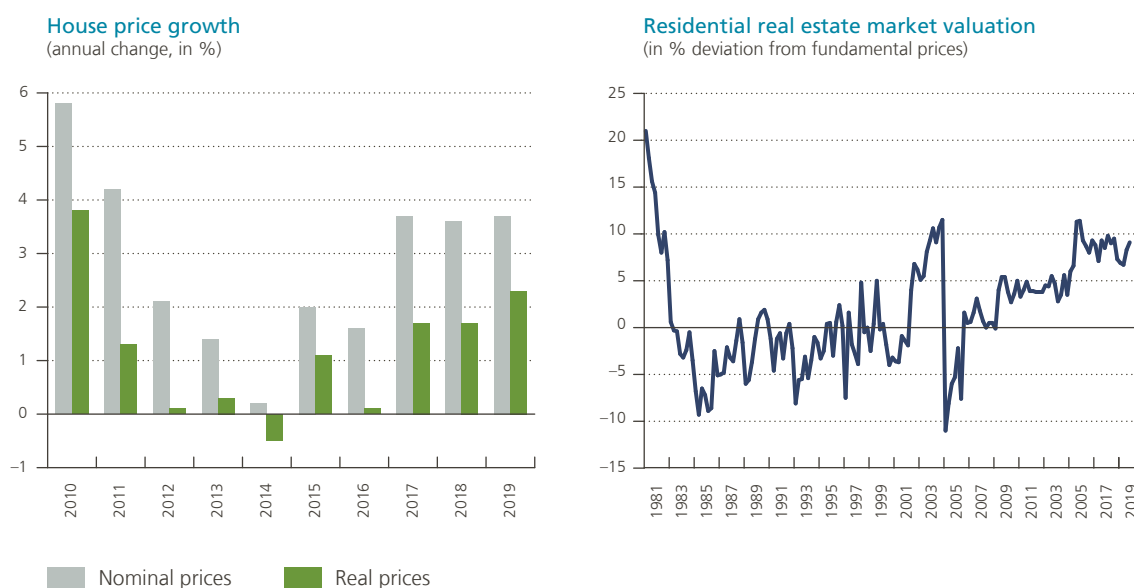
## 1. Developments in the Belgian residential real estate market

### 1.1 Housing market

In 2019, prices of residential property in Belgium increased by 3.7 % in nominal terms and 2.3 % in real terms, based on the private consumption deflator (left-hand panel of Chart 1). This is in line with the property price growth observed in the previous two years (nominal growth of 3.7 % in 2017 and 3.6 % in 2018). Taking a longer-term perspective, property prices have risen almost without interruption and at a strong pace in recent decades, so that they have more than doubled since the early 2000s. Since reliable data became available, there have been only two periods of falling prices: one in the early 1980s and a second, shorter period at the time of the economic and financial crisis of 2008-2009.

Chart 1

#### House price growth and residential real estate market valuation



Source: NBB.

Property prices, like other asset prices, are typically determined by supply and demand factors. Over the past couple of years, demand for residential property has been increasing, in particular owing to easier access to mortgage loans. This resulted from both higher household disposable income and lower mortgage rates. Demographic developments also contributed to the higher demand, as population growth and a decline in the average household size increased the need for homes. In the past, tax relief for mortgage loans also supported demand for both mortgage loans and housing, but this began to change in 2015, when the Regions started taking measures to reduce (and – in two of the three Regions – eventually phase out) the tax benefits related to mortgage loan payments as part of their new authority following the sixth State reform.

Prices can also increase fast when the housing supply is insufficient or inadequate to meet demand. In the first decade of the 2000s, the supply of dwellings relative to the number of households in Belgium contracted, which contributed to a sharp increase in house prices. An important constraint on increasing the housing supply in Belgium is the high population density and related scarcity of land available for development; in those respects, Belgium ranks highest of all OECD countries. Rigid planning regulations – for example, the time needed to secure a building permit – might also play a role, although it is not easy to conclude from the available statistics whether or not this is part of the explanation for the quite inelastic housing supply in Belgium. Since 2012, however, this trend has been reversed and the relative supply of dwellings has increased again, slowing the upward pressure on real estate prices.

Taking into account various of these supply demand factors, the Bank uses an econometric model to estimate the equilibrium level of house prices, i.e. the level of prices which is explained by underlying market fundamentals. At their current level, house prices in Belgium are estimated to be overvalued – i.e. above the equilibrium level estimated by the model – by 7.7 % on average in 2019, a level similar to that in previous years (right-hand panel of Chart 1).

Significant increases in both building permits and mortgage loans granted for construction in 2018 and 2019 suggest that the housing supply is expanding further (middle panel of Chart 2). As apartments account for an increasing percentage of the building permits issued, the share of apartments in the housing stock has been gradually rising over the past decades (left-hand panel of Chart 2).

Meanwhile, on the secondary market, the number of real estate transactions has been increasing strongly (right-hand panel of Chart 2). Transactions grew by respectively 4 % and 5 % per year in 2017 and 2018. In 2019, they increased by a significant 14.8 %, boosted by the rush on real estate in the fourth quarter of the year after the new Flemish government had announced that all income tax deduction of mortgage loans payments would be scrapped for all new mortgage loan transactions with effect from 1 January 2020. A very similar development had also been observed in 2014, when the number of real estate transactions increased by 14.5 % as households anticipated the reduction in the tax benefits for mortgage loans in Flanders, that took effect on 1 January 2015.

Looking ahead, however, the increase in real estate transactions is expected to slow down in 2020, or even give way to a decline. First, many households planning to buy (or construct) a new house brought forward their transactions to the end of 2019 instead of the beginning of 2020. This transfer of transactions had also occurred between 2014 and 2015, causing a decline of 14 % in the total number of transactions in 2015.

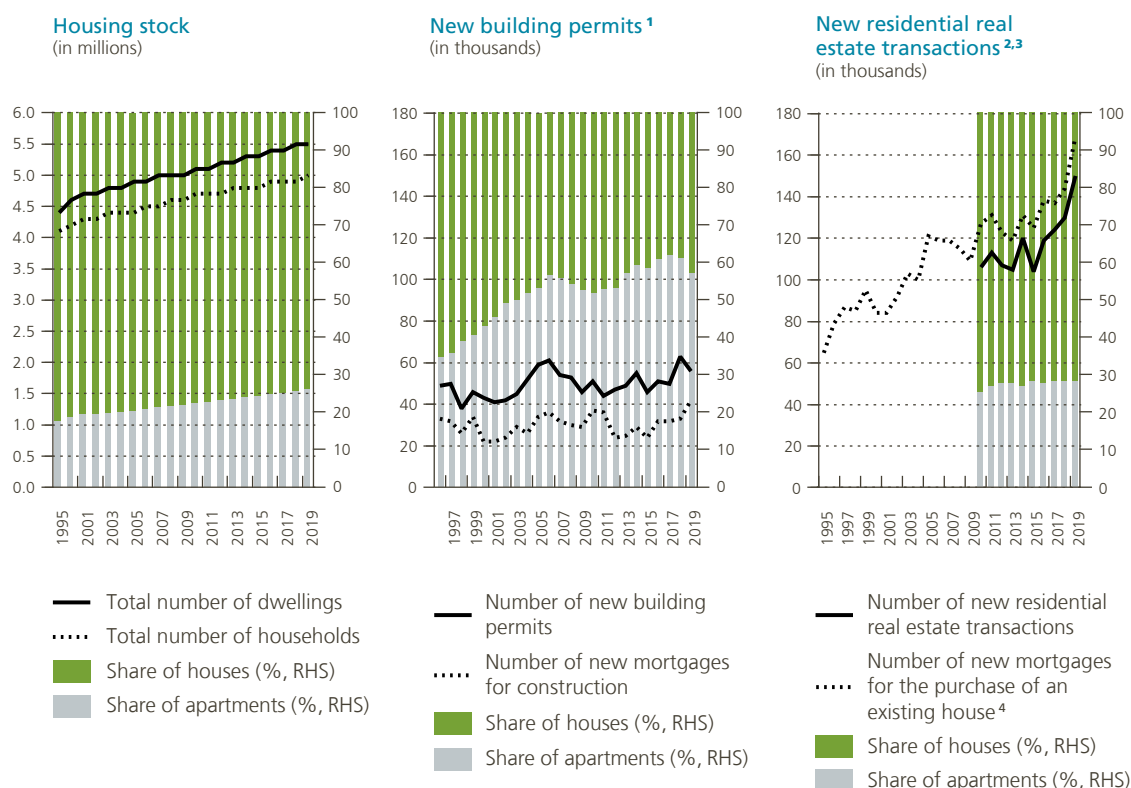
Secondly, the measures announced by the government in March 2020 to contain the spreading of the coronavirus rendered it impossible to visit properties offered for sale, so that the number of new sales has drastically decreased during the period of the strict lockdown. Moreover, while the conclusion of a sales contract or *compromis* with a notary was still possible by postal exchange or e-mail, the execution of sales and/or mortgage deeds was initially postponed in many cases. From April, deeds could again be executed at notary offices if social distancing measures were respected and from May, property visits were allowed again and it was made possible to sign deeds remotely (by means of a digital authorisation given to the notary's assistant, for example).

In the first quarter of 2020, the number of transactions was down 30% compared to the first quarter of 2019. Belgian notaries have reported declines of similar magnitude for the months April and May. These figures should, however, be

Chart 2

## Housing stock, new building permits and new residential real estate transactions

(broken down by dwelling type)



Sources: Statbel, NBB.

<sup>1</sup> Building permits for new construction only (and not for renovation).

<sup>2</sup> Data for transactions are available only since 2010.

<sup>3</sup> Excluding transactions concerning building plots.

<sup>4</sup> Mortgage loans for house purchase or for house purchase and renovation.

interpreted with caution. A large part of the decline in the first quarter relates to the shift of transactions in Flanders between the end of 2019 and the beginning of 2020. Furthermore, there are indications that transactions picked up again relatively quickly when the containment measures were eased. So far, notaries have not seen any impact on house prices; they report that average house prices have remained stable. However, a price correction cannot be ruled out, if transactions do not pick up or if households' disposable income is affected by a rise in unemployment.

## 1.2 New mortgage loans

The increase in house prices and activity on the housing market over the past couple of years has been paralleled by an increase in both the number and amount of new mortgage loans. New mortgage loans have surged especially since 2014, when measures taken as part of the Eurosystem's monetary policy reduced banks' funding costs and thus drove down mortgage loan interest rates (left-hand panel of Chart 3): between June 2014 and June 2015, long-term mortgage rates dropped by 1 % (from 3.4 % to 2.4 %). By the end of 2019, they had declined to 1.6 %. This resulted not only in a higher uptake of new mortgage loans but also in a significant amount of existing loans being refinanced at lower rates.



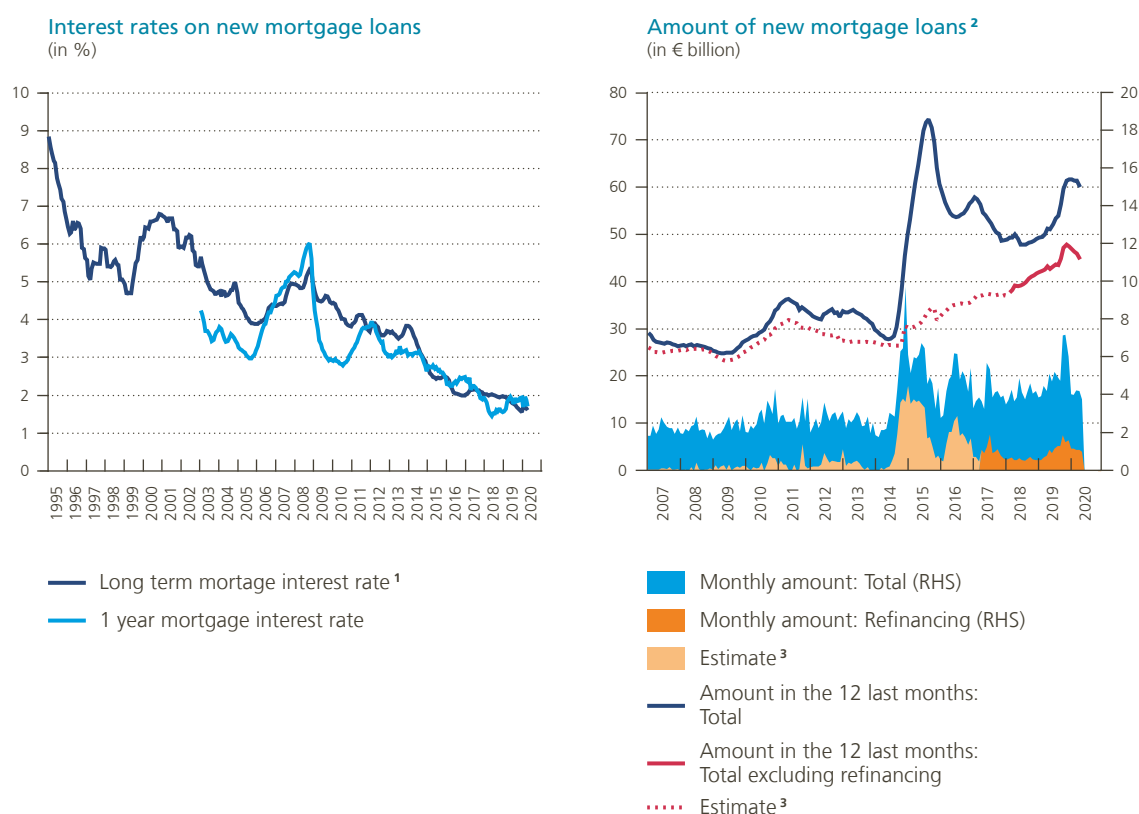
Excluding those refinanced loans, the yearly amount of new mortgage loans increased from an average level of € 30 billion at the beginning of 2014 and in the preceding years to over € 45 billion at the end of 2019 (right-hand panel of Chart 3). Households' anticipation of the elimination of the income tax relief for mortgage loan payments in Flanders caused a surge in the number and amount of new mortgage loans in the fourth quarter of 2019, as real estate transactions were moved forward in time. The relative share of refinanced loans also went up again in the second half of 2019 to around 25 %, compared to 15 % in the same period of 2018.

In the first five months of 2020, the amount of new mortgage loans (excluding refinanced loans) declined. New mortgage loans, as registered in the Central Credit Register, totalled € 14.6 billion compared to € 17.8 billion in the same period of 2019, which is a decline of 18 %. Average amounts borrowed under new mortgage loans (excluding refinanced loans) are also stabilising, after they had increased significantly in previous years.

There are various factors that affected mortgage lending during this period. First of all, a number of mortgage contracts that otherwise would have been granted at the beginning of 2020 had been brought forward and concluded in 2019 for the reason already mentioned. The phase-out of the tax benefits in Flanders also

**Chart 3**

### Interest rates and amount of new mortgage loans



Source: NBB.

1 Initial rate fixed for at least 10 years.

2 Data from the Central Credit Register. Existing loans which are refinanced – either at the same bank or at another bank – are registered as new contracts. It is only since April 2017 that credit providers have had to indicate whether a new loan is actually an existing contract that has been refinanced.

3 Estimates of the amount of refinanced loans before April 2017 are based on the comparison of data from the Central Credit Register with data from other data sources that do not include refinanced loans.

affected households' disposable income, although the effects were partly offset by a reduction in registration fees (stamp duty) from 7 % to 6 % in that Region. Furthermore, the number of transactions dropped after the implementation of the coronavirus crisis containment measures, which was reflected in a decline in the amount of new mortgages of 20% on average in March, April and May compared to the same months a year before. Depending on the course and duration of the coronavirus crisis and its economic impact, this might be a temporary phenomenon or it could have more long-term effects.

On 1 January 2020, the supervisory expectations for mortgage lending also entered into force (see Box 1). With these measures, the Bank wants to make sure that conditions for new mortgage lending in Belgium do not become too flexible since such a development might lead to large credit losses in the event of a crisis. No data are yet available concerning credit standards in 2020, but there is already preliminary evidence that the measures will be largely complied with. Banks have amended their credit origination policies and have reported a widespread tightening of credit standards for housing loans in the ECB Bank Lending Survey in recent quarters – and especially since the fourth quarter of 2019 when the measures were announced.

## BOX 1

### Monitoring framework and macroprudential measures for domestic mortgage loans

The National Bank of Belgium has set up an extensive framework for monitoring risks in the Belgian mortgage market, and has used that as the basis to take a series of macroprudential measures in recent years.

In 2012, a six-monthly data collection survey was launched among the largest mortgage-providing banks in Belgium. This data collection, known as the PHL survey, collects a wide range of information on both new and outstanding mortgage loans such as credit standards, Basel parameters, and various other loan characteristics. The data are supplemented with data from various other sources such as the Central Credit Register. Moreover, additional (ad hoc) data requests are added to the survey when deemed relevant, as was recently the case for information on (risk-based) mortgage loan pricing and commercial margins. In 2019, the PHL reporting requirements were amended and extended in order to comply with the ESRB Recommendation on closing real estate data gaps<sup>1</sup>. The new requirements will become compulsory for all banks with effect from the reporting on the situation at the end of 2020. The Bank also developed a similar data collection survey for Belgian insurance companies, which is applicable as from 2019. This ensures the comprehensive monitoring of the mortgage market.

The monitoring framework also comprises a regular exchange of information with the institutions concerned. First, feedback on the results of the monitoring is systematically provided to the institutions, including sector benchmarks which are useful for comparing institutions with their peers. This feedback is supplemented with rounds of Q&As and regular dialogues with the institutions based on observed developments and risks in their portfolios. In this context, the Bank has repeatedly communicated

<sup>1</sup> ESRB recommendation on closing real estate data gaps, published in 2016 (ESRB/2016/4) and amended in 2019 (ESRB/2019/3) ([www.esrb.europa.eu](http://www.esrb.europa.eu))



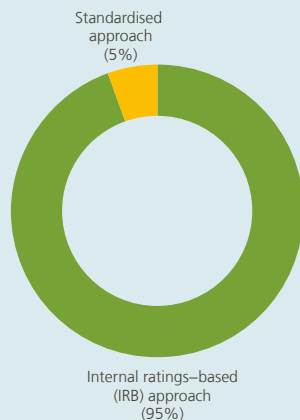
within the sector the importance of maintaining sound credit standards and correct pricing for new mortgage loans. Together with the results of the quantitative monitoring, these messages have also been passed on in Financial Stability Reports and Annual Reports.

In 2013, the Bank introduced a first macroprudential measure for the real estate market as the mortgage monitoring had revealed that Belgian banks were not only significantly (and increasingly) exposed to the residential real estate sector, but also held relatively low microprudential capital buffers for these exposures. For 95 % of outstanding mortgages, Belgian banks calculate the required capital buffers through internal ratings-based (IRB) models. Since those models are calibrated on historical data for credit losses (which have never been high in Belgium, as there has not been any real crisis in the housing market), the capital buffers which result from them are very low and deemed insufficient to absorb potential losses during a crisis. Therefore, the Bank decided to introduce a five-percentage point add-on to the risk weight calculated in banks' internal models for domestic mortgage loans. As a consequence, the average internal risk weight of domestic mortgage loans in the Belgian banking sector increased from 10 % to 15 %. In 2014, the measure was extended under Article 458 of the Capital Requirements Regulation and its application was renewed in 2016.

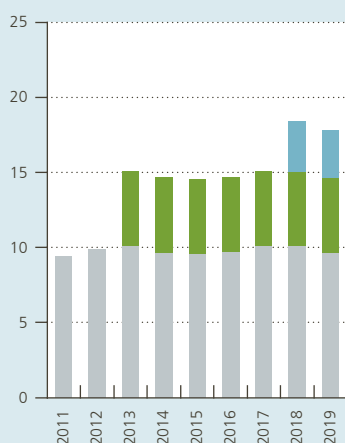
#### Average risk weight for domestic mortgage loans, as calculated in accordance with the internal ratings-based approach and the standardised approach

(percentages)

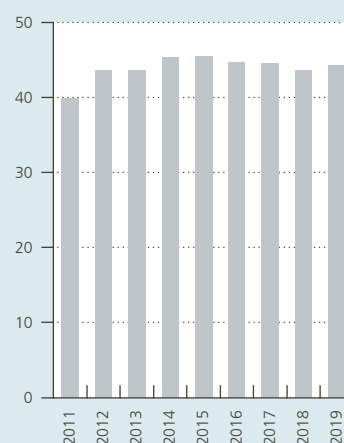
**Mortgage stock breakdown**  
(end 2019)



**Average risk weight IRB approach**



**Average risk weight standardised approach**



Average risk weight as calculated in accordance with the IRB approach  
 Add-on (5 percentage points)  
 Risk weight multiplier (1.33)

Average risk weight as calculated in accordance with the standardised approach  
 Risk weight multiplier (1.33)

Source: NBB.



Given the persistent vulnerabilities and further deterioration in credit standards, the Bank decided to introduce a new, more targeted, measure in 2018. The new measure adds two components to the internal risk weight for domestic mortgage loans: the first component is a flat five-percentage point add-on (as in the previous measure) and the second is an additional increase in the initial internal risk weight of 33 % (by means of a multiplier). Because of the latter component, banks holding a riskier mortgage loan portfolio and therefore contributing more to systemic risk are subject to proportionately higher capital requirements. Because of the measure, the average internal risk weight increased to 18 %. The application of the measure has been extended for one year, starting 1 May 2020.

In 2020, after findings by the Bank as well as by the ECB and ESRB<sup>1</sup> had revealed a renewed build-up of vulnerabilities in the mortgage market (especially a further deterioration of credit standards), a new initiative was taken with the aim of improving the quality of new mortgage loans. Within new supervisory expectations, the Bank has set out its expectations with respect to loan-to-value (LTV) ratios and particular pockets of risk in new mortgage lending, by establishing specific reference thresholds for these indicators. In order to provide enough scope for institutions to factor in borrowers' full risk profile and any mitigating factors, the Bank set tolerance margins as well, allowing a proportion of new loans to breach the reference thresholds. Different thresholds and tolerance margins apply to subsegments of borrowers because of their specific characteristics and risk profile. For example, 35 % of loans granted to first-time buyers can have LTV ratios above the 90 % threshold, whereas 10 % of buy-to-let loans can have LTV ratios above the 80 % threshold. In addition, the Bank applies a "comply or explain principle" that allows lenders to deviate from the expectations, provided they can prove that they observe due care and caution when granting loans. In this context, institutions must submit a yearly compliance report to the Bank in which they provide extensive documentation with respect to loans granted within or above the thresholds and tolerance margins (i.e. the high-risk loans).

The two macroprudential measures complement one another. While the capital-based measure is intended to increase banks' resilience to the existing vulnerabilities in the stock, the supervisory expectations aim to prevent the further build-up of pockets of risk. In view of the recent developments surrounding the coronavirus crisis, the Bank is maintaining both measures for the time being but will carefully monitor the risks and is prepared to release the macroprudential capital buffer if necessary (see MPR Section III.C.3).

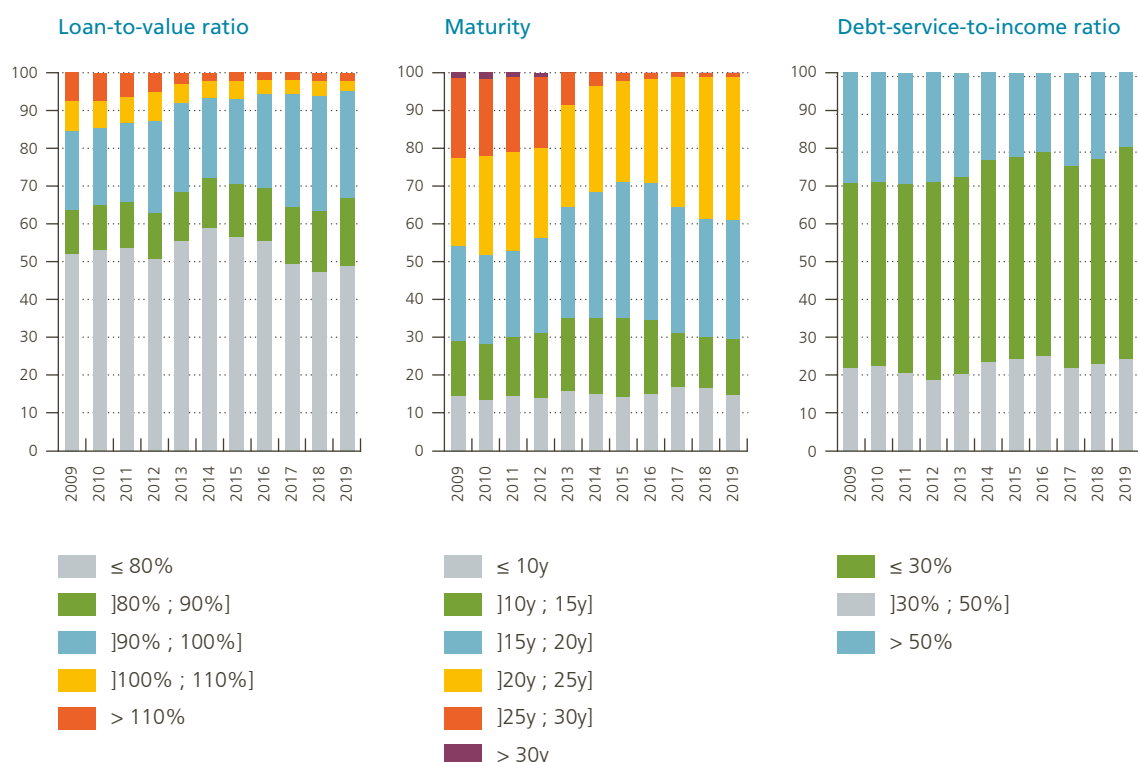
<sup>1</sup> On 23 September 2019, the ESRB issued a recommendation to the competent authorities of Belgium on medium-term residential real estate vulnerabilities (ESRB/2019/04, [www.esrb.europa.eu](http://www.esrb.europa.eu)).

Data from the Bank's national survey on mortgage lending (the PHL survey) show that there has already been some improvement in credit standards in 2019 (Chart 4). For the first time since 2014, the share of new mortgage loans where households borrowed more than 90 % of the value of the property used as collateral has declined: from 37 % in 2018 to 33 % in 2019. This quite significant tightening in loan-to-value (LTV) ratios mainly took place in the second half of 2019. To some extent, it might signal that certain banks had already anticipated the introduction of the supervisory measures by the end of 2019, but the development is also largely explained by the renewed increase in refinanced loans. Refinanced loans generally have better LTV ratios since part of the loan has already been repaid, while the price or value of the collateralised property has increased since the initial origination of the loan.

Chart 4

# Developments in credit standards for new mortgage loans<sup>1</sup>

(percentages of total loans granted during a particular vintage)



Source: NBB.

<sup>1</sup> 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.

Debt-service-to-income (DSTI) ratios have also improved. Whereas for 23 % of new loans granted in 2018 households spent more than half of their disposable income on repaying their debts, this was the case for 20 % of loans granted in 2019. Nevertheless, this is a quite significant share. Moreover, this improvement should be interpreted with caution since the rising share of refinanced loans towards the end of 2019 might also have artificially improved the figures here. Meanwhile, maturities have remained broadly stable compared to 2018: 39 % of new loans have an initial maturity of more than 20 years. This is a lot higher than in 2016, however, when the share was 29 %. On the other hand, the share of new loans with a very long maturity (of more than 25 years) remains very small: it declined from 20 % in 2012 to around 2 % in 2015 and the years thereafter.

The improvement in credit standards in 2019 was not observed to the same extent for different subsegments of borrowers (Chart 5). LTV ratios improved less for first-time buyers, representing around 42 % of new loans. The proportion of those loans with LTVs exceeding 90 % only declined slightly from 46 % to 45 % between 2018 and 2019, due entirely to a decline in LTVs above 100 % (from 5 % to 4 %). Loans seem to have shifted partly towards the ]80 % ; 90 %] LTV bucket, of which the share increased from 16 % to 19 %. For other owner-occupied and buy-to-let loans, the decline in LTVs above 90 % between 2018 and 2019 was larger: from 33 % to 28 % for other owner-occupied loans and from 19 % to 16 % for buy-to-let loans. Developments in the maturity of new loans also differed significantly. For first-time buyers, the lengthening of maturities continued:

58 % of new loans had a maturity of more than 20 years in 2019, compared to 45 % in 2016. The share was more stable (and lower) for the other subsegments.

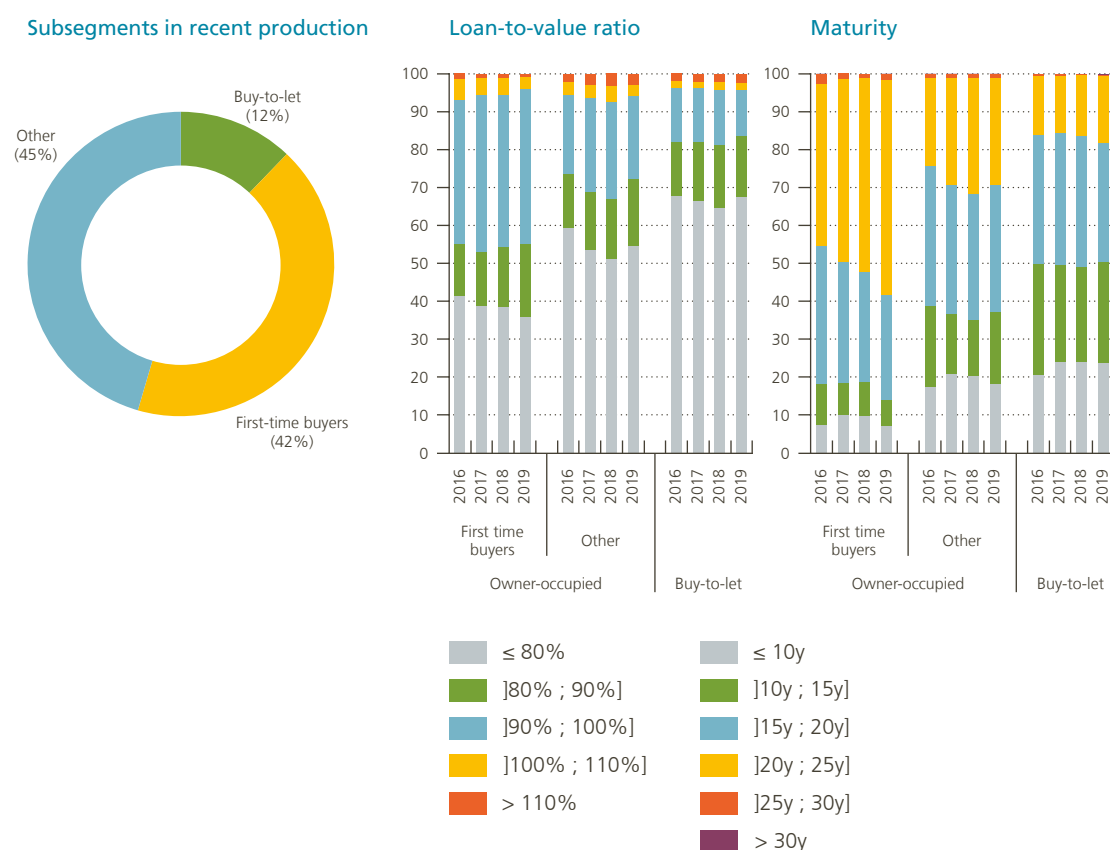
Young people buying their first house typically have higher LTV ratios and longer maturities, since they often have less own funds at their disposal than borrowers taking out a loan to finance an apartment to let or a holiday home on the coast, for example. Since borrowers are less likely to default on a loan financing the property in which they live than on a loan financing their holiday home or buy-to-let apartment, banks often also have stricter credit policies for buy-to-let borrowers and second residences than for other owner-occupiers.

Before the first signs of improvement in 2019, credit standards for Belgian mortgage loans had been deteriorating for quite some years. More specifically, after an initial period of tightening between 2012 to 2014, the share of new loans with high LTV ratios (i.e. higher than 90 %) increased continuously until 2018. This development was related to the acceleration in credit growth and the intensification of competition between banks against the background of rapidly declining mortgage rates. It has also been accompanied by shrinking commercial margins, raising concerns over a potential underpricing of risks for new mortgage loans.

Chart 5

#### Developments in credit standards for new mortgage loans<sup>1</sup>, by borrower subsegment

(percentages of total loans granted during a particular vintage)



Source: NBB.

<sup>1</sup> 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.

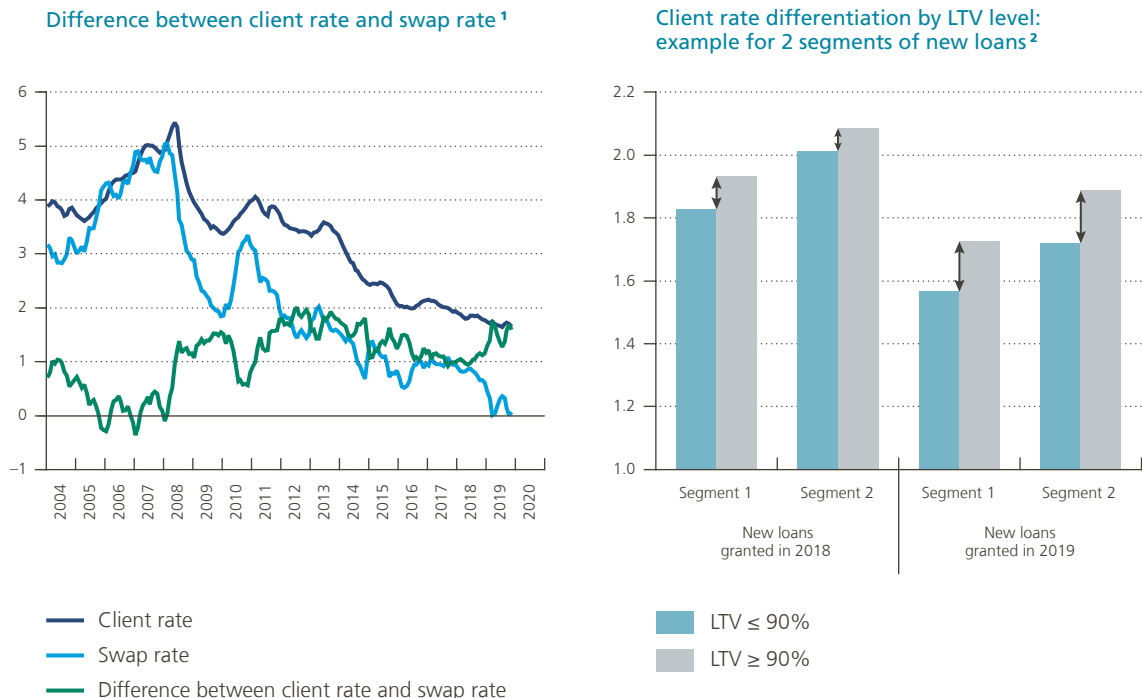
Gross commercial margins – which are approximated by the difference between the average interest rate on new mortgage loans offered to clients (client rate) and the corresponding swap rate according to the maturity of the period for which the client rate is fixed – have fallen back to around 100 basis points in recent years, after having increased sharply to around 200 basis points after the economic and financial crisis of 2008-2009 (left-hand panel of Chart 6). The Bank therefore decided to start monitoring this more closely by requesting banks to report detailed information on commercial margins for new mortgage loans as part of the PHL survey. The data collected showed that, after deducting all other costs from the gross commercial margins – such as costs associated with credit and liquidity risk and capital held – only very small or even negative net commercial margins remain. In addition, there was often very little differentiation between client rates for mortgage loans which are riskier for the bank (in terms of LTV, DSTI and maturity profile) and loans which are less risky. Sufficient price differentiation is nevertheless necessary in order to cover all the internal costs related to larger risks, to avoid subsidising risk-taking by mortgage borrowers and to ensure the long-term and sustainable profitability of the Belgian banking sector.

Since the second half of 2019, however, commercial margins have started to improve markedly, in both gross and in net terms (left-hand panel of Chart 6). This improvement continued in the first quarter of 2020. While client rates did not increase, the main driver behind the improvement was a large drop in swap rates which was not reflected in an equally large decline in client rates. There was a simultaneous improvement in risk-based pricing (right-hand panel of Chart 6), widening the difference between mortgage rates charged for loans with relatively higher risks (in terms of credits standards) and mortgage rates for loans with relatively lower risks. This may have played a role in the improvement in credit standards observed in the second half of 2019. Setting higher mortgage rates for loans with higher LTV ratios, for example, encourages borrowers to strive for lower LTV ratios, thus reducing the share of new loans with high LTVs.

Chart 6

### Commercial margins and risk-based pricing for new mortgage loans

(in %)



Source: NBB.

<sup>1</sup> Weighted by volume over the various maturities.

<sup>2</sup> Segment 1 includes new loans with maturity ≤ 20y and DSTI between ]30 % ; 50 %]; Segment 2 includes new loans with maturity between ]20y ; 25y] and DSTI between ]30 % ; 50 %].

### 1.3 Household debt and pockets of risk in the mortgage stock

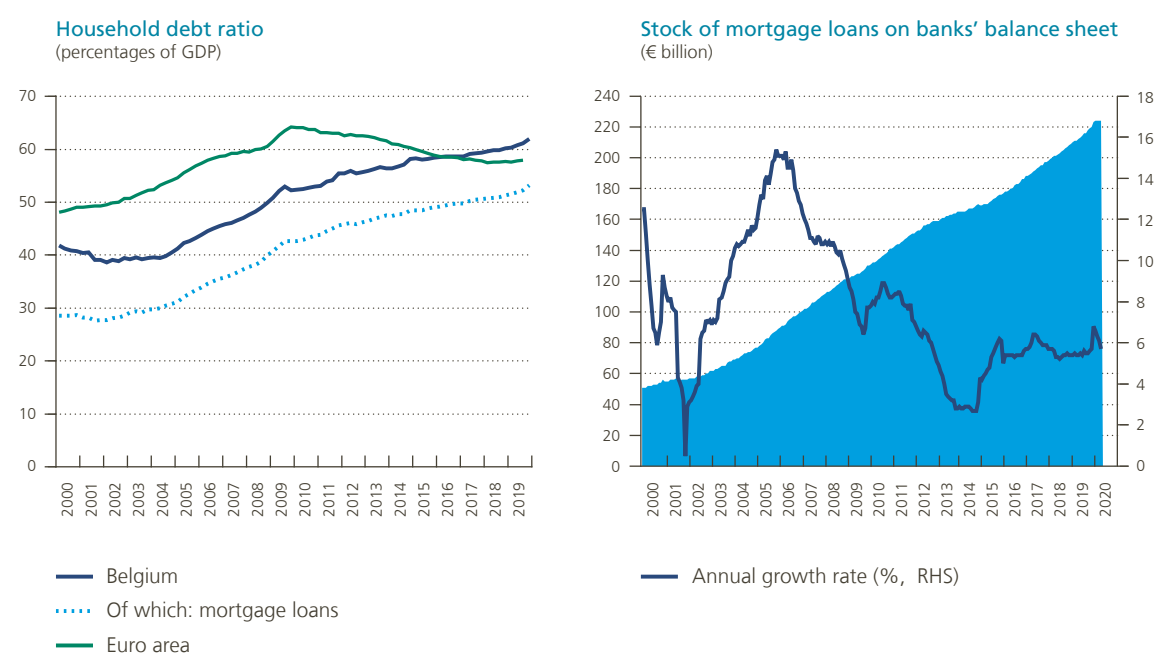
The almost continuous growth of house prices and mortgage lending, including during crisis years, has led to a further increase in the debt level of Belgian households (left-hand panel of Chart 7). Between the end of 2009 and 2019, the debt ratio increased from 52 % to 62 % of GDP. Although that trend is not specific to Belgium, it contrasts with developments in most euro area countries, where individuals in general have reduced their debt level since the economic and financial crisis of 2008-2009. By the end of 2019, the euro area debt ratio had fallen from 64 % in 2009 to 58 %, and is now well below the Belgian debt ratio. A high debt level implies that households are vulnerable to income shocks, especially those households without substantial financial buffers.

The vast majority of this debt is held by the Belgian banking sector. The amount of mortgage loans on the balance sheet of Belgian banks has risen sharply in recent years (right-hand panel of Chart 7), especially between 2014 and 2019. In this period, stimulated by the low interest rates, credit growth accelerated and the outstanding stock of mortgage loans increased from € 169 to € 223 billion, representing an average annual growth rate of 5.7 %. Another – increasing – part of the mortgage debt is held by Belgian insurers. At the end of 2019, they held € 17 billion of mortgages on their balance sheet compared to € 12 billion at the end of 2016, representing an average annual growth rate of 12 %.

For Belgian banks, the share of mortgage loans in total assets is significant. It increased from 10 % in 2009 to 20 % in 2019. In the insurance sector, the share is smaller – but also rising – and stood at 6 % in 2019. The Belgian banking and insurance sectors thus have a broad, significant and systemic exposure to the residential real estate market and are therefore very vulnerable to shocks affecting this market. A deterioration in economic conditions, such as rising unemployment, may lead to higher credit losses for creditors since it increases the probability that borrowers will default on their loan. Should house prices suddenly fall (e.g. as a result of an interest rate shock),

Chart 7

#### Household debt ratio and stock of mortgage loans on bank balance sheets



Sources: EC, NBB



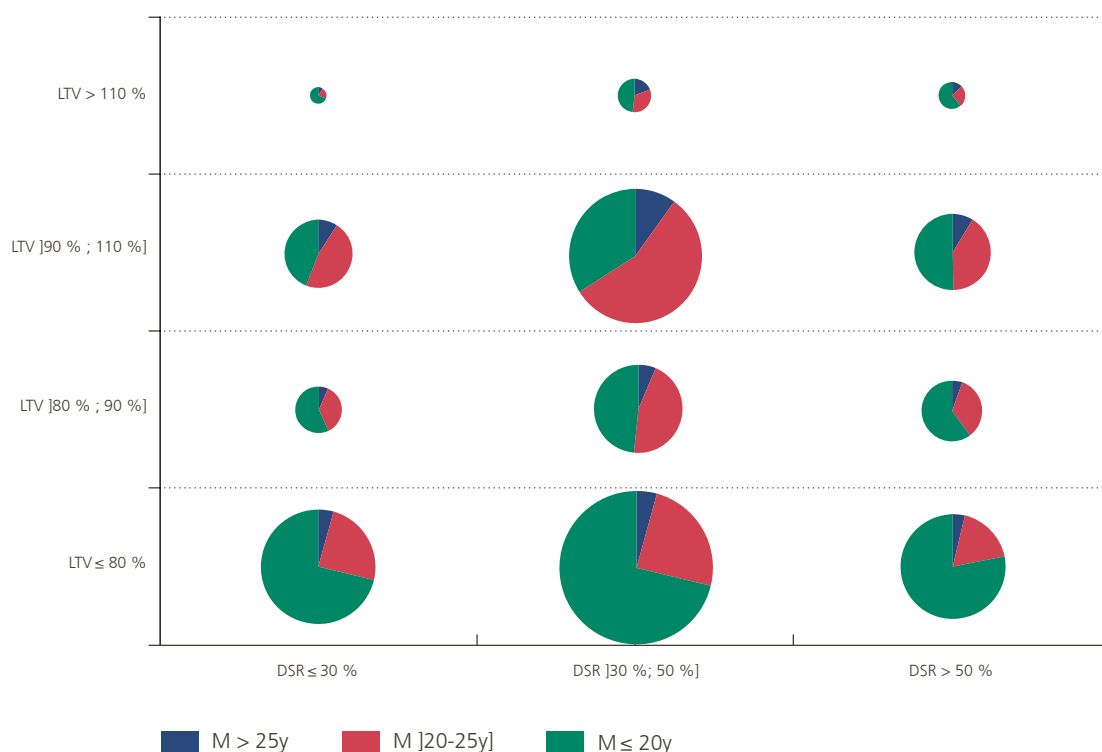
the value of the property used as collateral for a mortgage loan could potentially fall below the remaining outstanding capital of the loan, so that creditors may suffer higher than expected losses if borrowers default. In this context, it should be noted that for more than 1 out of 10 outstanding mortgage loans, the remaining outstanding capital to be repaid is more than 90 % of the current value of the mortgaged property. This means that if Belgian house prices drop by 10 % (they are currently estimated to be overvalued by 7.7 %), the value of the property, for 1 out of 10 mortgages, would not entirely cover the remaining capital of the mortgage loan.

The vulnerabilities in the mortgage loan stock are believed to be mainly concentrated in certain subsegments of the debtor population, where households combine several high-risk features in their mortgages such as high LTV ratios with high DSTI ratios and low liquid assets. Hence, they give rise to so-called “pockets of risk” in the mortgage portfolios. At the end of 2019, 27 % of the total outstanding mortgage stock had originally been granted with an LTV ratio above 90 % and a DSTI ratio above 30 % (Chart 8). In addition, over half of these loans also have an initial maturity of more than 20 years. Next, although Belgian households are generally considered to be among the wealthiest in the euro area, their financial assets are unequally distributed among the population. Mortgage-indebted households hold, on average, less (liquid) financial assets than households without mortgage debt. In addition, a significant part of these mortgage-indebted households lack the liquid financial resources to continue servicing their mortgage debt in the event of severe income loss.

**Chart 8**

**Breakdown of the portfolio of mortgage loans of Belgian banks, by LTV, DSTI and maturity at origination<sup>1,2</sup>**

(non-consolidated data, at the end of 2019)



Source: NBB.

1 The three indicators are calculated at the time of granting the loans.

2 The relative size of the circles reflects the relative size of the portfolios, while the level of the outstanding amount of loans in relation to the value of the property (loan-to-value, LTV) and the ratio between the debt repayments and the borrower's income at the time of granting the loan (debt service to income ratio, DSTI) are broken down by specific intervals. In addition, each portfolio is broken down according to the initial maturity (maturity, M) of the loans expressed in years.

While those pockets of risk may lead to higher than expected defaults for creditors in the event of a shock, there are also several mitigating factors. In Belgium, to a greater extent than in some other euro area countries, mortgage loans are characterised by both interest and capital repayments over the duration of the contract, typically in the form of annuities with monthly reimbursement of capital. At the end of 2019, 95 % of the total outstanding mortgage stock had full capital amortisation (left-hand panel of Chart 9). This means that “indexed” or “current” LTV ratios – that take into account loan amortisation and developments in house prices – improve each time a tranche of the capital is repaid (other things equal).

Secondly, a very large part of outstanding mortgage loans in Belgium have initial maturities below 25 years (94 % at the end of 2019) and the vast majority have a fixed interest rate for the whole maturity of the loan (69 % at end 2019, right-hand panel of Chart 9). In addition, the law regulating Belgian mortgage loans is quite prescriptive for variable interest rate mortgages: the rate charged to borrowers, reviewed on the basis of the monthly average yields on Belgian government bonds, may never exceed a level that is twice the initial client rate. These factors nuance to some extent the relatively high DSTI ratios in Belgium. In fact, the impact of a potential interest rate shock on borrowers’ debt service level is rather limited, and there is some scope for lengthening maturities for borrowers with repayment problems.

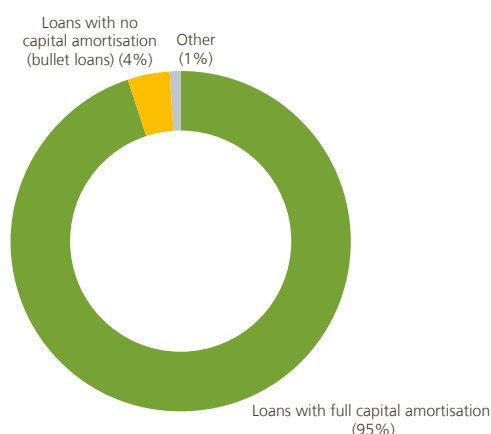
Despite the presence of risks in the stock, the default rate of Belgian mortgage loans has historically been very low. Ever since 2006, the share of defaulted loans in the total outstanding stock has never exceeded 1.4 %. Against the backdrop of favourable economic conditions, the share fell even further from 1.2 % to 0.9 % between 2014 and 2019. Since the beginning of 2020, however, default rates have started to increase again. While the level itself still remains very low and close to 0.9 % in May 2020, it is to be expected that default

**Chart 9**

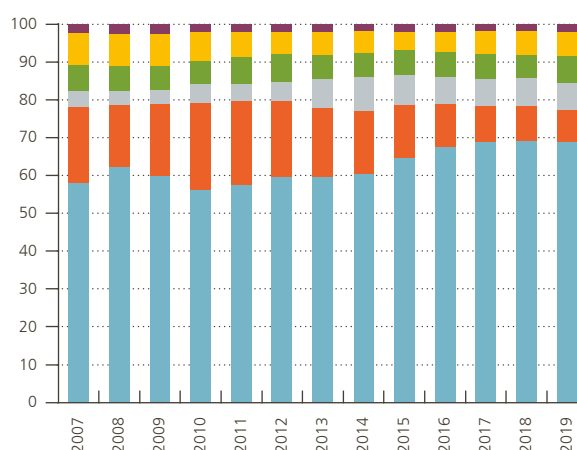
### Breakdown of outstanding mortgage loans by capital amortisation and interest rate type

(percentages of total outstanding loans)

#### By capital amortisation type (end 2019)



#### By interest rate type



Source: NBB.

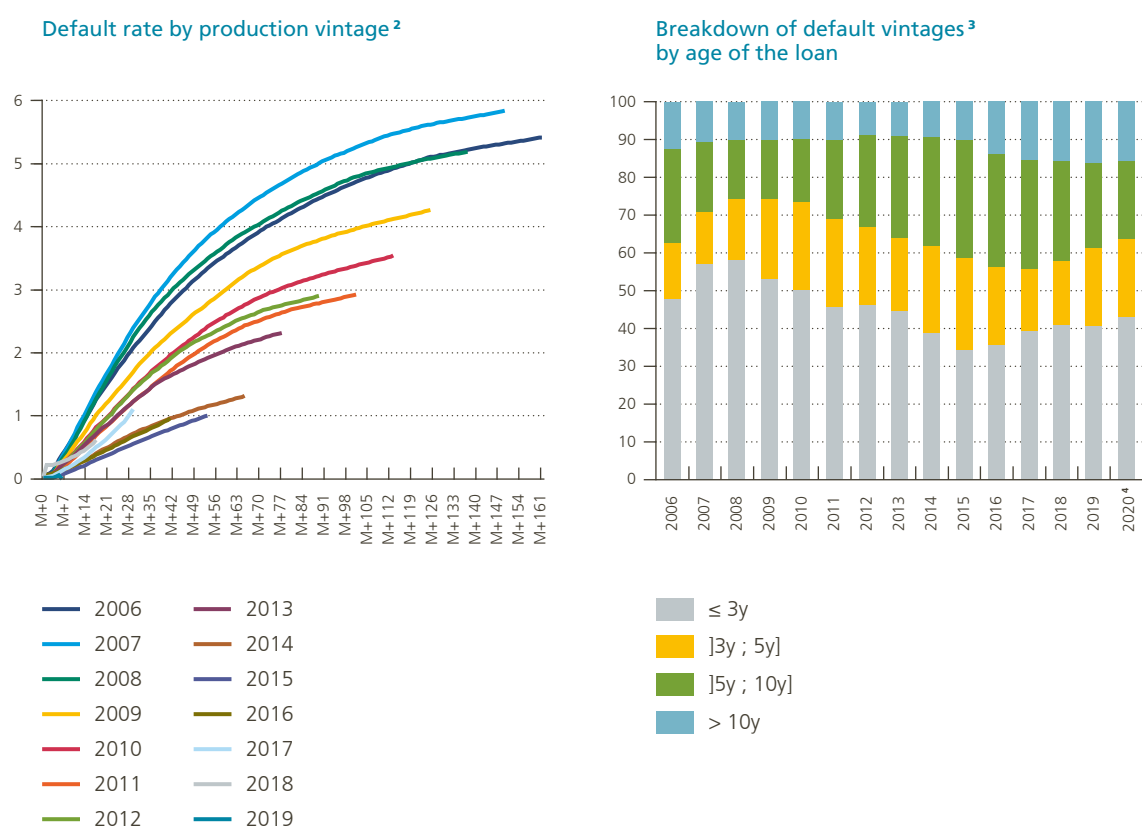
rates will further increase in the future as a result of the impact of the coronavirus crisis on large segments of the household sector, even though a number of measures have been taken to ease the debt service burden temporarily for the worst-affected debtors (more details below and in Box 2).

As a result of weaker credit standards, new mortgage loans granted in recent years are already showing a higher default risk than vintages with better credit standards. From 2006 up to 2015, credit quality had improved in almost every year, as shown by the default rates per vintage of production (left-hand panel of Chart 10). This trend has reversed since 2015 – not coincidentally at the same time as credit standards started to deteriorate again. To give an example, of the mortgage loans granted in 2015, 0.19 % had already defaulted after one year, but this was the case for 0.26 % of loans granted in 2016, 0.30 % of loans granted in 2017 and 0.42 % of loans granted in 2018. The observation that an increasing share of recent loans has a higher risk of default is confirmed by the breakdown of new defaults by age of the loan (right-hand panel of Chart 10). Back in 2015, 34 % of all new defaults related to loans which had been granted within the preceding three years. This share increased to more than 40% for new defaults in 2019 and the first months of 2020.

Chart 10

### Mortgage loans with payment defaults<sup>1</sup>

(percentages of total loans granted during a particular vintage)



Source: NBB.

<sup>1</sup> As recorded in the Central Credit Register.

<sup>2</sup> 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.

<sup>3</sup> Default vintages group together loans that defaulted during the same year.

<sup>4</sup> Figures up to May 2020.

Of course, the coronavirus crisis and its impact on the Belgian economy creates additional challenges. Many borrowers have less income than before, such as self-employed persons or those who are temporarily unemployed, and a significant increase in unemployment rates is expected. This might lead to a materialisation of the risks related to the high level of household indebtedness in Belgium and the pockets of risk in the outstanding mortgage stock, either in the form of higher defaults or as adjustments to consumption, thus deepening the economic impact of the current crisis. The federal government has already taken a series of exceptional measures to cushion the financial consequences for individuals, including the deferral of tax payments and the relaxation of rules on temporary unemployment due to force majeure. In addition, the federal government, with the support of the National Bank of Belgium, and the Belgian financial sector agreed on a moratorium for individuals experiencing payment problems as a result of the coronavirus crisis (see Box 2).

## BOX 2

### Moratorium for mortgage borrowers in the context of the coronavirus crisis

In March 2020, the federal government, with the support of the National Bank of Belgium, and the Belgian financial sector agreed on the provision of temporary support, in the form of a moratorium, for individuals experiencing payment problems as a result of the coronavirus crisis<sup>1</sup>. As from 1 April 2020 borrowers can request a temporary delay of their mortgage loan payments (both interest and capital payments) if they meet certain conditions. Mortgage payments will resume after the period for which payments have been delayed, and the initial maturity of the mortgage loan will be lengthened accordingly without banks charging additional administrative costs.

Borrowers can request a delay in payments provided that their income has been reduced or has even disappeared completely as a consequence of the coronavirus crisis (due to temporary or full unemployment, Covid19-related disease, closing of their business or bridging measures). The scheme does not apply to borrowers who were already in arrears on the mortgage loan for which a delay is requested before the outbreak of the crisis (on 1 February 2020). In addition, the mortgage loan must have been taken out for the borrower's sole and principal residence in Belgium. At the time of the request for postponement of payments, the borrower's total movable assets in current and savings accounts and in investment portfolios must be less than € 25,000 (excluding pension savings).

All borrowers who meet the above conditions can be granted postponement of their mortgage loan payments. In addition, borrowers with a net monthly income below or equal to € 1,700 will not have to pay additional interest because of the postponement period, so that their mortgage payments will resume afterwards at the same monthly charge as before. For all other borrowers, the payments will resume at an adjusted monthly charge that includes the deferred interest.

By June 2020, Belgian lenders had granted a delay in mortgage payments under the moratorium for more than 120,000 Belgian mortgage loans. In terms of amounts, this corresponds to around €13 billion or 7 % of the total outstanding stock.

<sup>1</sup> All information on the moratorium for individuals can be found on the websites of Febelfin ([www.febelfin.be](http://www.febelfin.be)) and the National Bank of Belgium ([www.nbb.be](http://www.nbb.be)).

## 2. Developments on the Belgian commercial real estate market

This second section of the article reviews the developments on the Belgian commercial real estate market. In contrast to the residential market, the commercial real estate (CRE) market is characterised by a variety of participants and different market segments in which trends, and hence risks, may vary considerably. However, the lack of (official) data on this segment of the Belgian real estate sector is hampering its accurate monitoring. Initiatives to close some of these data gaps, in line with the related ESRB Recommendation, are work in progress. This ESRB Recommendation on closing real estate data gaps – published in 2016 (ESRB/2016/4) and amended in 2019 (ESRB/2019/3) – defines CRE as follows: *“any income-producing real estate, either existing or under development, including rental housing; or real estate used by the owners of the property for conducting their business, purpose or activity, either existing or under construction; that is not classified as RRE; and includes social housing”*.

Although the data used in this overview of the Belgian CRE market do not always fully match the ESRB-definition, a too strict adherence to the ESRB recommendation would also run the risk of omitting important real estate-related sectors and related financial sector exposures (such as those of the construction sector) from the scope of what should be a comprehensive assessment of real estate developments not yet covered in the previous analysis of the residential mortgage loan market. The future closing of data gaps in response to the ESRB recommendation will thus provide an important complement to the data already available from prudential, private sector, credit register or balance sheet reporting, rather than an entirely new dataset on which to base future CRE analyses. This article thus analyses the CRE market based on sources that are not always fully consistent with the strict ESRB-definition, not only because of data limitations, but also – and in particular – because the aim is a comprehensive analysis based on the broadest possible scope of commercial real estate activities and sectors.

The first section covers recent trends in the Belgian secondary market of (physical) CRE properties. The next section focuses on the Belgian financial sector's CRE exposures by identifying the interactions of the CRE market with the financial system. The last section provides some indications on the financial position of the non-financial professional CRE sector.

### 2.1 Investment volume and prices on the commercial real estate market

Investment activity on the Belgian CRE market remained very robust during 2019; the current CRE investment cycle, which had already started in 2013, was thus prolonged. According to the private sector data provider Real Capital Analytics (RCA) and other CRE brokers, the total transaction volume involving existing CRE properties located in Belgium amounted to between € 4.5 billion (RCA) and € 4.8 billion (Jones Lang Lasalle) last year, a level well above the five-year average and very close to the 2018 figure, which was exceptionally high due to three large shopping centre deals (top panel of Chart 11).

Initially, the year 2020 announced itself even more dynamic. Investor surveys conducted by real estate brokers at the end of 2019, showed a strong investor appetite for Belgian commercial real estate, and investment volumes were generally expected to surpass the levels of previous years. Worth noting in this respect is that the sale of the Finance Tower – leased to the Belgian federal government until 2034 – for approximately € 1.2 billion to South Korean investors in January 2020 represented the largest single property deal ever on the Belgian CRE market. However, the coronavirus crisis has changed the setting since. At the time of writing it is still highly unclear how long and to what extent the Belgian CRE investment market will be affected by the impact of the health crisis, the lockdown measures applied to the broad economy, and any potential medium- and long-term changes in the fundamental key drivers of the various CRE subsegments such as the office market (economic growth, bankruptcies, unemployment, teleworking, co-working, etc.) or the retail market (hotels, pubs and restaurants, retail and wholesale trade, e-commerce, etc.). These impacts could

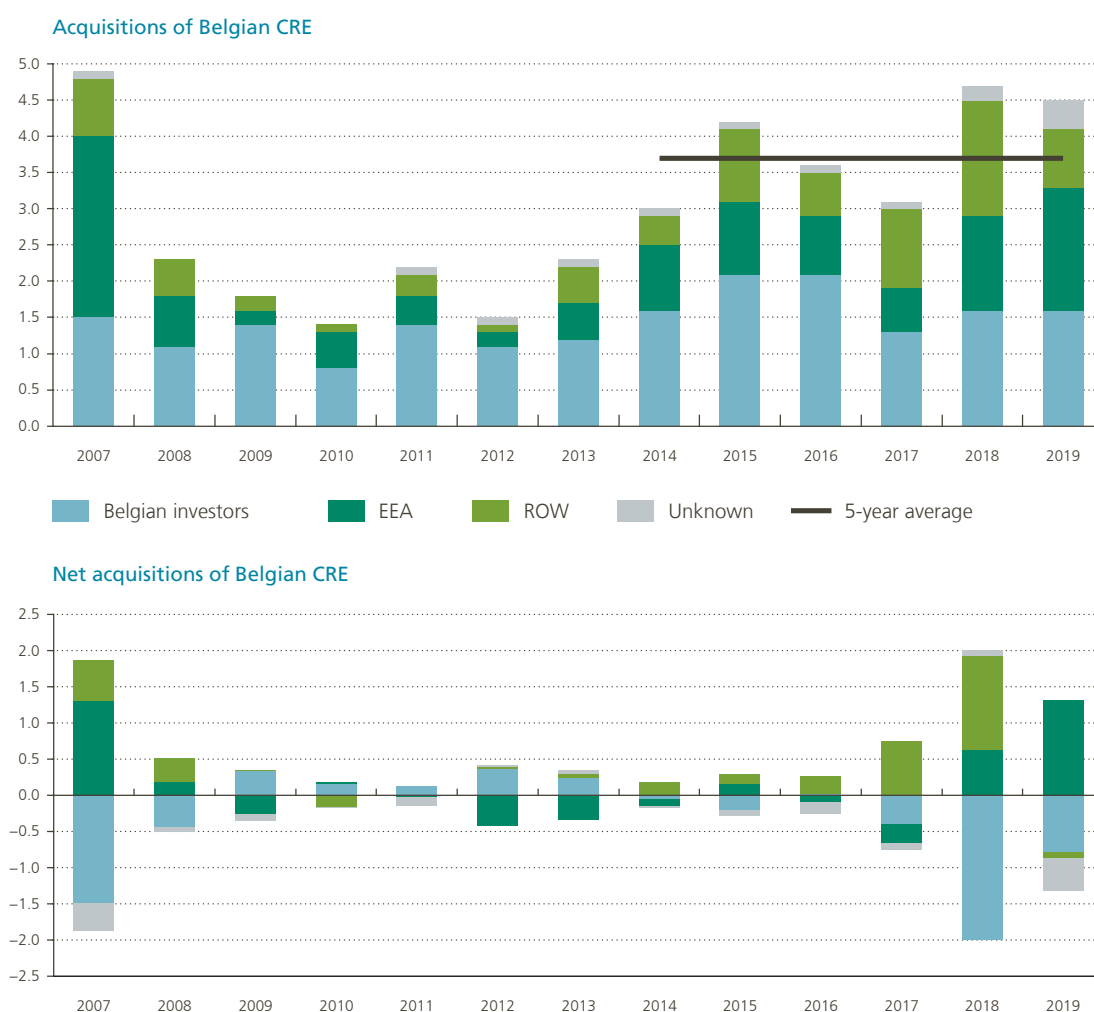
include increases in vacancies, downward pressure on rents and falling CRE prices in the short- to medium term, and more structural changes in supply and demand on the CRE market in the long term.

For several years, foreign investors originating from both the European Economic Area (EEA) and the rest of the world (ROW) have accounted for a significant part of the Belgian CRE transaction volume. Since 2017, the market share of these cross-border investors has even slightly exceeded that of domestic CRE investors, accounting for between 55 % and 62 % of total new transactions. Taking sales of properties into account as well, foreign investors appear to have switched from being net sellers of Belgian CRE during the last recession to being net buyers since the start of recovery and expansion phase of the most recent investment cycle. Net inflows of cross-border capital were particularly strong over the past two years, reaching levels of € 1 up to 2 billion (bottom panel of Chart 11).

**Chart 11**

**Transaction volume on the Belgian CRE market by investor's origin**

(in € billions)



Source: NBB calculations on RCA data.

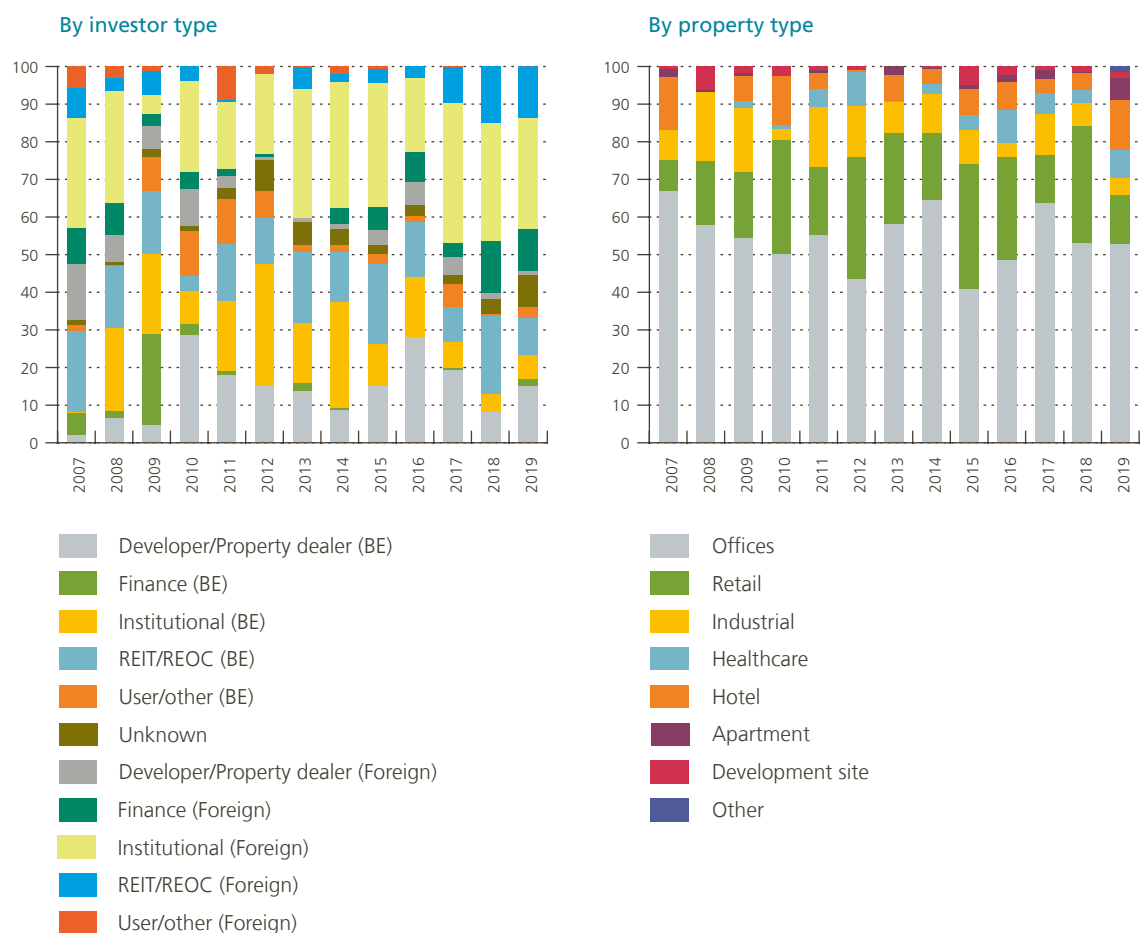
As in previous years, foreign investment in 2019 originated mainly from the neighbouring countries France (13 %), Germany (16 %), the Netherlands (2 %) and the UK (4 %), and from the United States (5 %) and Asia, – among which China (3 %) and South Korea (3 %) in particular. Unlike the other countries mentioned, Asian countries have only entered the Belgian CRE market to any significant extent since 2013. As far as South Korea is concerned, the interest in Belgian CRE is reportedly related to changes in legislation allowing such cross-border investments. The recent entry on the Belgian CRE market of new cross-border players that have not yet made any divestments partly explains the overall impressive net buyer position of foreign investors in recent years.

The high transaction volume and strong inflows of cross-border capital on the Belgian CRE market in 2019 have undoubtedly been driven by the continuing low interest rate environment. On the one hand, fairly cheap finance is available for property transactions; on the other hand, real estate remains an attractive asset class compared to financial assets in investors' global search of yield. Competition among professional investors pushed yields on the Belgian CRE market in general down further to new lows last year. Nevertheless, CRE prime yields in Belgium

Chart 12

### Breakdown of Belgian CRE acquisitions by type and residence of the investor and by property type

(in % of total)



Source: NBB calculations on RCA data.

continued to compare favourably to those seen in neighbouring countries, and are one of the explanations for the relative attractiveness of Belgian CRE. Another factor to be mentioned in this regard is the stable and defensive character of the Brussels office market, backed by the substantial presence of European institutions and international and Belgian authorities, and by long inflation-linked leases. In addition, Brexit-related uncertainty is said to have had an effect in 2019 too: foreign investors finding it difficult to assess the return on British CRE investment have instead oriented their investment funds towards other countries, including Belgium.

The most important types of domestic investor are institutional investors – in practice, mainly Belgian insurance companies –, regulated real estate investment trusts (REITs) and developers (left-hand panel of Chart 12). Regulated REITs are subject to the specific Belgium regime covering *Sociétés Immobilières Réglementées (SIRs)/Gereguleerde Vastgoedvennootschappen (GVVs)*, which imposes a legal cap on the level of indebtedness of these investors (see below for further details). While insurance companies and REITs generally invest with a long-term horizon, developers invest with the specific objective to build, convert or renovate a CRE property, the final goal being to put it up for sale again. They thus do not necessarily have a long-term investment focus. When property sales are accounted for, developers are in fact clearly net sellers of (redeveloped) CRE, completely in line with their business model.

In sharp contrast to these three main types of domestic investors, Belgian banks have hardly been present on the secondary CRE market as direct investors in CRE properties. Their exposure to the Belgian CRE market is mainly indirect by financing the above-mentioned domestic owners of CRE, as will be discussed in more detail in a later subsection.

As regards the composition of foreign investors in Belgian CRE, REITs and financial institutions have become more important in recent years, but institutional investors still account for by far the largest share of cross-border investment volume. Unlike their Belgian counterparts, foreign institutional investors are predominantly asset managers rather than insurance companies.

The breakdown of CRE acquisitions by property type indicates that the office market traditionally represents the lion's share of the CRE investment volume<sup>1</sup> (right-hand panel of Chart 12). Last year was no exception to this, with a market share of about 53 % for offices that attracted approximately € 2.4 billion in 2019, 21 % above its 5-year average. The vast majority of properties on the office market are located in the so-called Brussels Central Business District area. As usual, this particular subsegment of the Belgian CRE market attracted the most cross-border investment capital last year, for the reasons set out above. The robust investment activity in the office segment has put yields under further pressure.

If the office segment is disregarded, new transactions in 2019 showed a more diversified mix in comparison to previous years. Alternative CRE property segments like healthcare – particularly senior housing –, student housing and hotels have in fact gained importance at the expense of retail and industrial properties. The share of these alternative assets (29 %) even exceeded the combined share of retail and industrial properties (18 %), which are both traditional segments of the CRE market, alongside offices. As alternative real estate is considered to offer income stability even during cyclical downturns, this asset class appears to have attracted increasing interest from investors searching for higher yield. Some large portfolio deals were indeed seen in this segment in 2019, lifting transaction volumes for hotels (€ 0.6 billion) and for healthcare properties (€ 0.3 billion) to a multiple of their respective 5-year averages.

The retail segment has generally been the second largest segment of overall CRE investments, after offices. But after an exceptionally strong year 2018 with three large shopping centre deals totalling well over € 1 billion, the retail transaction volume fell back both in absolute terms (€ 0.6 billion) and in relative terms (13 %) last year. Apart from the absence of exceptional transactions in 2019, investors perceived this segment as more risky because of the structural changes the retail sector is facing as a result of e-commerce growth. Consequently,

<sup>1</sup> It should be noted that the way a property is used at the time of acquisition does not necessarily coincide with its future use. For instance, there has been a trend towards converting offices to alternative uses (residential and hotel) on the Brussels office market.



and in contrast to yields on the other traditional segments of the CRE market, retail prime yields did not erode further in 2019.

The transaction volume for industrial properties (€ 0.2 billion) also remained below the levels of previous years. Yet in contrast to the retail segment, the low activity in this market segment was due to a lack of supply (especially in terms of quality), rather than a lack of interest from investors. There is in fact strong demand for logistic warehouses because of the growth of e-commerce and the observed trend for companies to outsource their logistic activities to specialised players. Although the imbalance between demand and supply put downward pressure on yields, investment in logistics property in Belgium remained attractive compared to prime yields for other property types and for logistic properties in neighbouring countries.

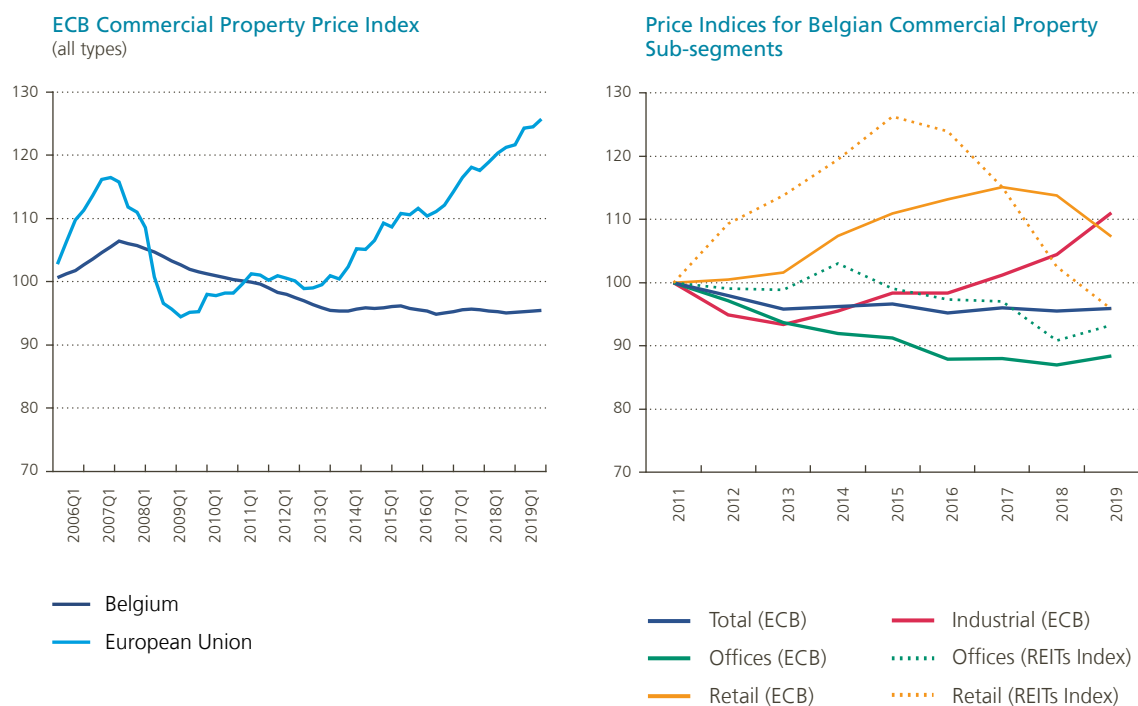
Regarding the investment strategy, brokers report that, for all asset types together, the share of core transactions – i.e. transactions exhibiting the lowest risk and the lowest potential returns – declined to 54 % in 2019 versus 63 % the year before. The pressure on yields and minimum required returns sought by institutional investors thus seem to have driven investors to take on more risks.

In sharp contrast to a number of other European countries, the strong investment activity on the Belgian CRE market in recent years does not seem to have translated into rising CRE prices (left-hand panel of Chart 13). According to the ECB's (experimental) commercial property price index, the trend in prices on the Belgian market diverged markedly from the overall picture in the EU. CRE prices in the latter started climbing steadily from 2014 onwards as investment activity gained momentum, therefore even surpassing their level on the eve of the financial crisis. Yet, price changes in Belgium remained subdued during the same period. Consequently, by the end of 2019 Belgian CRE prices overall had still not recovered to the levels last seen in 2007.

Chart 13

### CRE prices in the EU and Belgium

(indices 2011=100)



Sources: ECB, NBB.

This atypical pattern of the composite Belgian CRE price index in comparison with the rest of the EU is due mainly to the predominant office segment, where the oversupply built up in the years before the financial crisis continued to keep a lid on prices in the last decade (right-hand panel of Chart 13). The National Bank of Belgium's additional price indexes based on the Belgian REITs' share prices, capital structure and CRE portfolio mix – calculated according to a methodology detailed in a Eurostat publication<sup>1</sup> – indicate, however, that office prices may have bottomed out in the course of 2019 and may have resumed an upward trend. As regards the two other segments of traditional CRE, the price indexes clearly illustrate investors' persistent preference for industrial (logistics) properties and their risk aversion for retail, tendencies induced mainly by the growth of e-commerce.

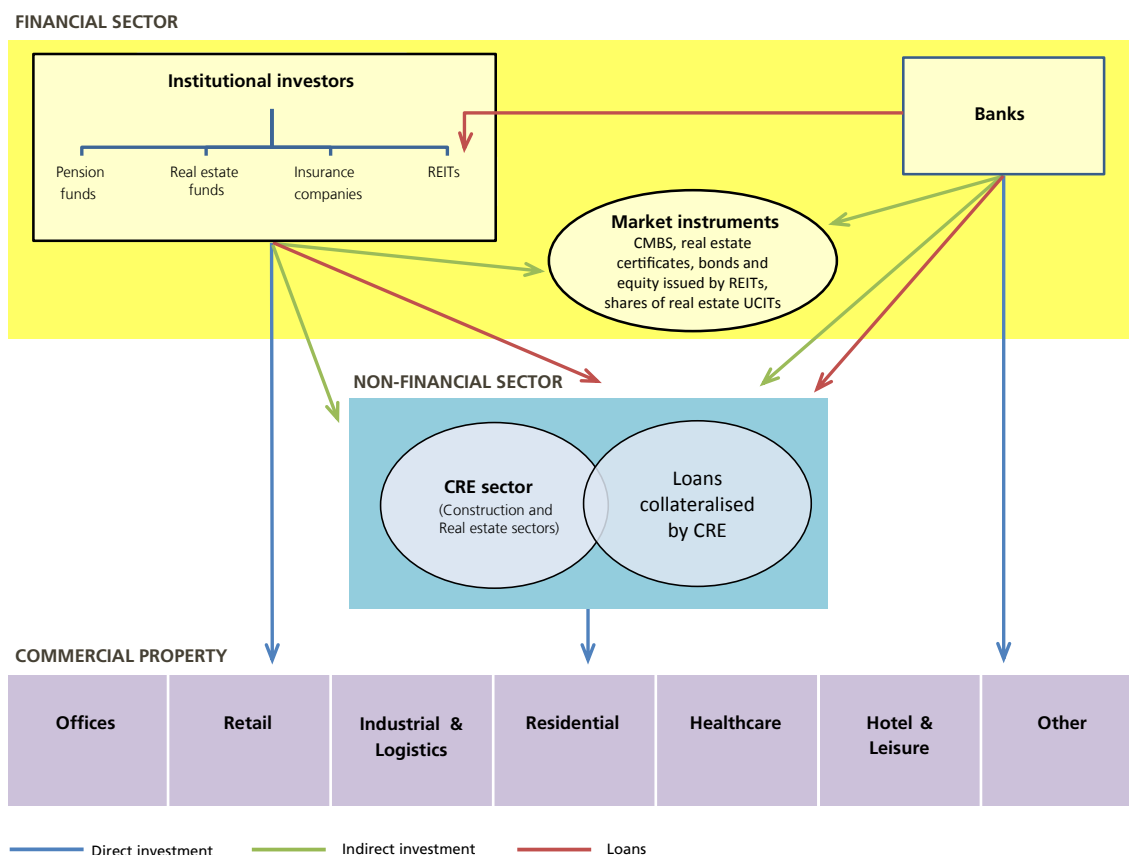
## 2.2 Belgian financial sector exposures

CRE markets are closely interconnected with the financial sector, warranting close monitoring of Belgian financial institutions' exposures to conditions in the Belgian CRE market.

1 Eurostat (2017), Commercial property price indicators: sources, methods and issues.

Chart 14

### CRE exposures of the Belgian financial sector



Source: NBB.

Since financial institutions can act as borrowers, as well as lenders and investors with respect to CRE, the channels through which the dynamics of the CRE market can potentially affect financial stability are manifold and complex. Chart 14 depicts the most relevant of these links for CRE-related exposures of the Belgian financial sector.

As already mentioned in the above review of CRE investments, the Belgian financial sector, and more specifically institutional investors, invest directly in physical commercial property as an income-generating asset class. Apart from that, though, financial institutions are also indirectly exposed to CRE through a number of channels. Real estate investment takes an indirect form through the holding of securities issued by Belgian REITs or other (non-) financial companies active in the CRE market. Furthermore, lenders – mainly banks – grant loans for CRE purposes to those same companies. In addition to this lending channel, and partly overlapping it, a collateral channel can be distinguished, as loans to non-financial companies in general are often secured on commercial real estate property.

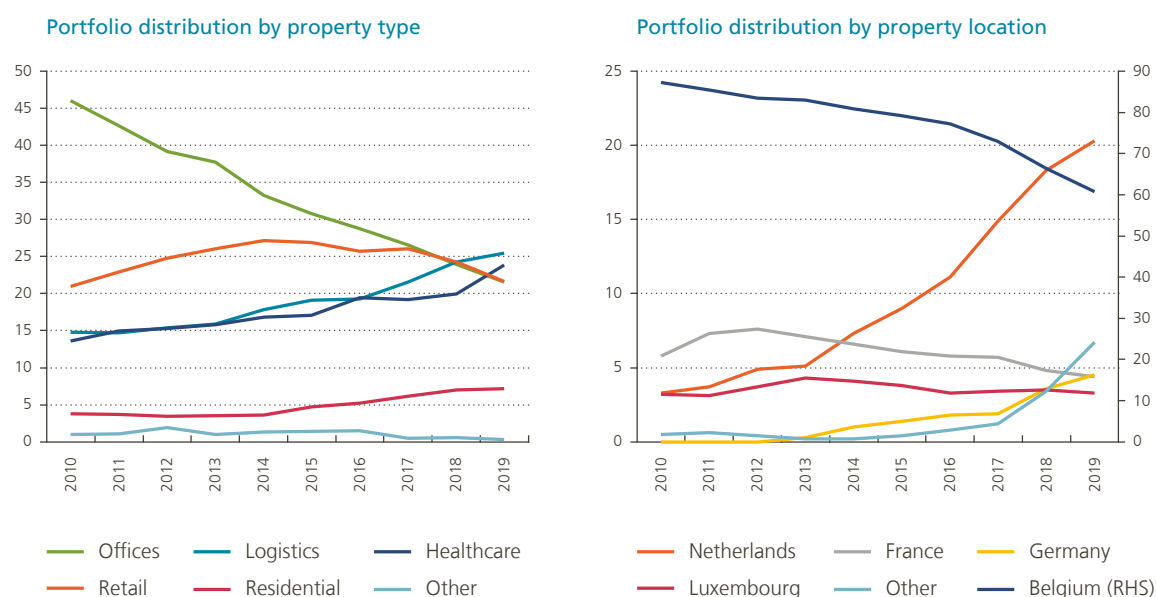
Assessing the CRE exposures of the Belgian financial sector requires aggregating the individual exposures of the different types of financial institutions. The (relative) importance of the direct and indirect exposures to the Belgian CRE market as described above varies considerably between different types of Belgian financial institutions. With overall CRE investments totalling less than € 1 billion in 2018, the CRE exposures of pension funds are rather limited compared to other types of financial institutions. In general, though, all types of financial institutions have shown a growing exposure to CRE in recent years.

As already demonstrated in the overview under point 2.1, Belgian REITs are an important type of investor on the Belgian physical CRE market. Their real estate portfolio, which is almost exclusively composed of direct investments, has grown considerably during the recent investment cycle: by the end of 2019 its size at fair value came to almost € 24 billion, or just about double the 2013 figure.

**Chart 15**

### Breakdown of the Belgian REITs' real estate portfolio

(in % of total)



Sources: Financial reports of the Belgian REITs.

Belgian REITs are subject to specific regulations, the most notable being the restriction of the (consolidated) gearing ratio to 65 %, the obligation to pay out at least 80 % of the net result as dividends, and the requirement to diversify investment risk – no more than 20 % of total assets may be invested in a single property.

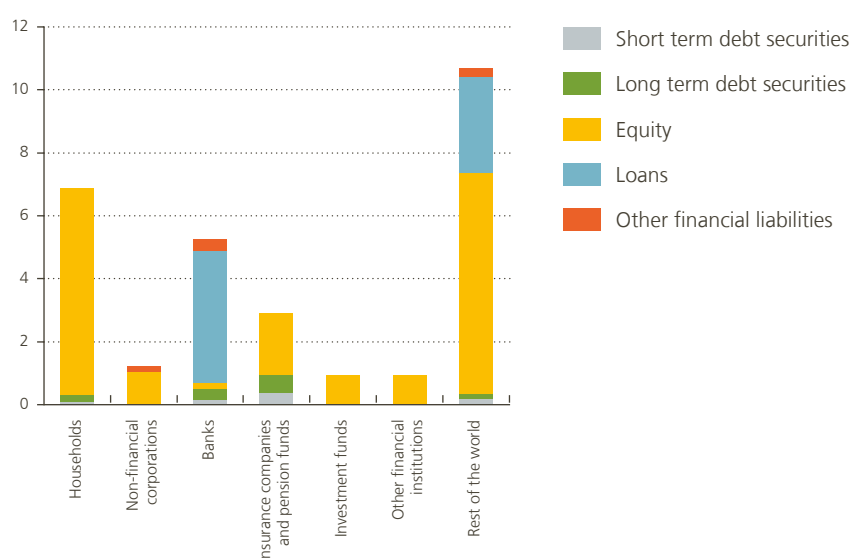
Belgian REITs are very diverse in their size as well as in their thematic and geographical focus, and the sector is very concentrated: the five largest trusts represent about 66 % of the overall sector portfolio. Almost every REIT is currently pursuing an investment strategy that focuses on a limited number of segments of the CRE market. Some of these institutions are even pure players as they focus exclusively on one type of property. Segments offering growth prospects, like logistics and healthcare – senior housing in particular –, are gaining interest, as clearly demonstrated by the changes in the portfolio distribution over the last few years. The share of offices – which in 2010 still accounted for almost half of the portfolio – declined sharply, while the share of retail also decreased slightly, mainly in favour of logistics and healthcare properties (left-hand panel of Chart 15). Consequently, these four segments had a very similar portfolio share at the end of 2019, ranging between 22 % and 25 %. Furthermore, the Belgian REITs sector also showed an increasing interest in the residential segment in recent years, focusing particularly on the student housing niche segment.

In addition to rebalancing their domestic investment portfolios towards other property types, the Belgian REITs also pursued a gradual international diversification of the investment portfolio, and that continued in 2019 (right-hand panel of Chart 15). Last year this trend included a further strengthening of existing cross-border positions – mostly in neighbouring countries, the Netherlands in particular – with some REITs explicitly extending their action radius into new European markets so as to broaden their geographical diversification. This resulted in a further rapid decline in the portfolio share of property located in Belgium, reducing it to only about 60 % at the end of last year. That said, Belgian REITs still own about 28 % (compared to 22 % in 2013) of the Belgian CRE market (measured by total value), according to estimates of the size of the Belgian professionally managed real estate market by Morgan Stanley Capital International (MSCI) up until 2018.

## Chart 16

### Financial liabilities of Belgian REITs by counterparty and by instrument

(end 2019 data in € billions; market value)



Source: NBB (calculations based on Financial Accounts and Central Corporate Credit Register data).

The growth of the Belgian REITs' portfolio in recent years went hand in hand with a diversification of financing sources, more specifically greater recourse to the debt capital markets. Nevertheless, the balance sheet structure on the liabilities side remained very sound: the debt ratio – calculated in accordance with the regulations on REITs<sup>1</sup> – thus remained well below the regulatory ceiling of 65 % applicable to this type of institutions. At the end of 2019 the (weighted) debt-to-assets ratio for the overall REITs' sector stood at 43.8 %, with the consolidated debt ratios for individual REITs ranging between 18 % and 55 %.

From the financial accounts statistics it can be derived that counterparties abroad and Belgian households are the largest providers of funds to the Belgian REITs' sector. This funding essentially takes the form of equity holdings, and is probably related to the attractive yield compared to other listed companies due to REITs' favourable tax status (almost complete exemption from corporate taxes). While the growing internationalisation of investment activities prompted Belgian REITs to take out loans abroad as well, Belgian banks are still by far their main credit providers. At the end of 2019, lending by Belgian banks to REITs stood at € 4.2 billion. Indirect investments in securities (bonds and equity) issued by REITs, amounting to less than € 1 billion, represent an additional, though smaller, part of banks' exposures to Belgian REITs. The rest of the institutions in the Belgian financial sector held securities – mainly equity – to the tune of € 5 billion. Insurance companies and pension funds accounted for the largest share of these indirect investments (€ 3 billion); the remainder was more or less evenly distributed between investment funds and other financial institutions, including REITs.

Alongside Belgian REITs, Belgian insurance companies also have significant exposures to the Belgian CRE market. The overall real estate exposures of this sector – covering both direct and indirect investments as well as loans – totalled € 27 billion or 9.1 % of their investment portfolio excluding assets covering unit-linked contracts at the end of 2019 (left-hand panel of Chart 17). Compared to the level of € 19 billion or 6.9 % of investments at the start of the Solvency II reporting in March 2016, the insurance sector's CRE exposures have risen remarkably in recent years. In response to the low yield environment, insurance companies have gradually re-allocated their investments towards alternative assets. In that regard, commercial real estate was very appealing to them as this asset class still offers attractive returns compared to more traditional ones like government bonds, and as it closely matches the long-term duration of their liabilities.

Although Belgian insurance companies are major investors on the physical real estate market, as pointed out above in point 2.1, the growing share of CRE exposures in their portfolio is almost entirely attributable to indirect investments in real estate-related securities. By the end of 2019 these indirect investments had attained a level of around € 15 billion (versus € 10 billion at the end of March 2016), comprising bonds (€ 7 billion) and equity (€ 6 billion) issued by REITs and companies in the CRE sector, and more specifically shares in real estate investment funds (€ 2 billion). Loans by insurers to CRE companies amounted to € 4 billion at the end of 2019, while their direct investment in physical real estate totalled € 8 billion. The vast majority of these physical properties consisted of CRE buildings located in Belgium. The insurance sector thus accounted for over 11 % of the Belgian professionally managed real estate market, as estimated by MSCI for the year 2018.

According to European Insurance and Occupational Pensions Authority's (EIOPA) figures, Belgian insurance companies are more exposed to real estate than their European counterparts (right-hand panel of Chart 17): total residential and commercial real estate exposure accounted for 12.6 % of total assets in Belgium against a European average of 8.8 %. The difference seems largely due to the importance of mortgages and, to a lesser degree, to CRE properties.

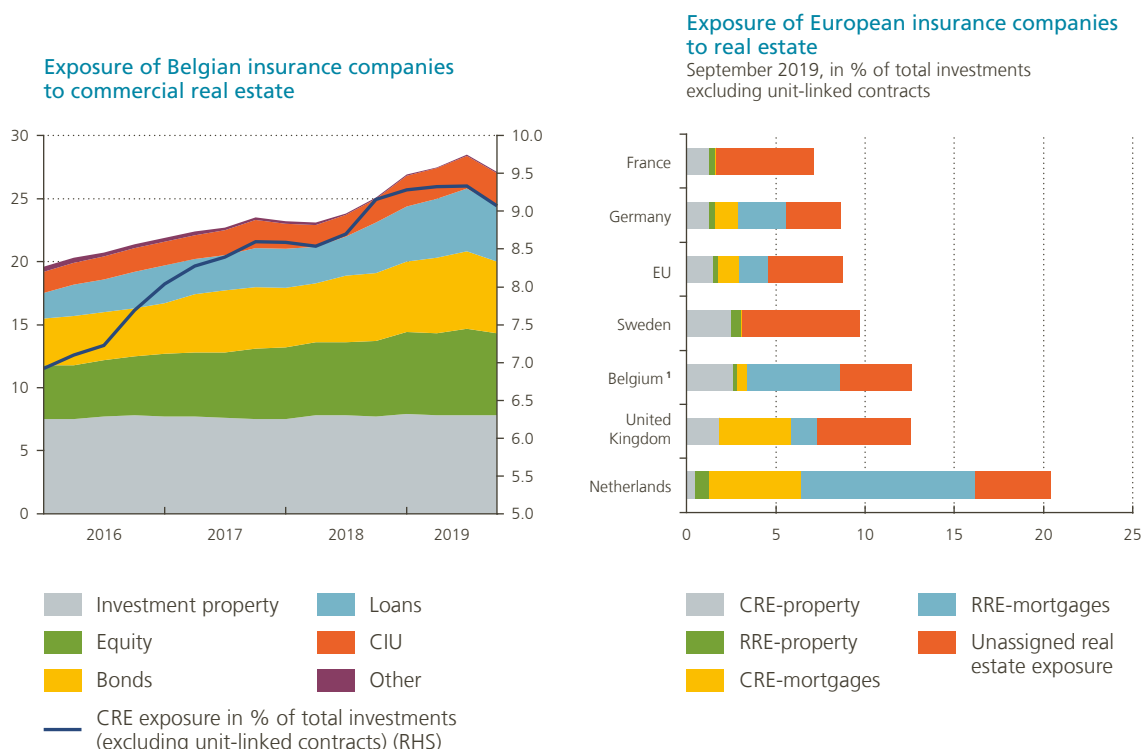
In contrast to institutional investors, Belgian banks are predominantly exposed to CRE through their lending activities, including both loans aimed at acquiring or developing CRE properties and loans secured by

<sup>1</sup> Koninklijk besluit van 13 juli 2014 met betrekking tot gereguleerde vastgoedvennootschappen/Arrêté Royal du 13 juillet 2014 relatif aux sociétés immobilières réglementées.

Chart 17

## Exposure of the insurance sector to real estate

(non-consolidated data in € billions, unless otherwise stated; market value)



Sources: NBB, EIOPA.

<sup>1</sup> The figures for Belgium may differ slightly from the left-hand chart due to methodological differences.

CRE properties. The supervisory reporting data show that banks' direct holdings of investment property are rather limited, amounting to less than € 1 billion at the end of 2019. Furthermore, on the basis of data from the largest banks, indirect investment in real estate can also be estimated at less than € 1 billion for the Belgian banking sector as a whole.

Apart from loans to REITs that have already been mentioned above, loans granted for CRE purposes are approximated by overall loans granted to non-financial companies active in the construction and the real estate sectors, the delineation corresponding to NACE sections F and L respectively. The stock of loans to non-financial corporations in the CRE sector thus defined amounted to € 59 billion on a consolidated basis at the end of 2019. This figure corresponds to 23 % of total loans to non-financial corporations, a share somewhat lower than the corresponding figure of 27 % for the whole EU banking sector. The largest part of these loans accorded by Belgian banks to construction and real estate companies, namely € 44 billion, consisted of exposures to Belgian corporations.

Although the data from the Central Corporate Credit Register (CCCR) are not fully comparable with those from the supervisory reporting due to methodological differences, the former can usefully complement the latter. That way, CCCR data include information on authorised credit and thus banks' off-balance-sheet CRE-credit exposures as well. In addition, they are more granular and hence allow a further breakdown of the construction and real estate sectors. Furthermore, they are available for a longer time period.

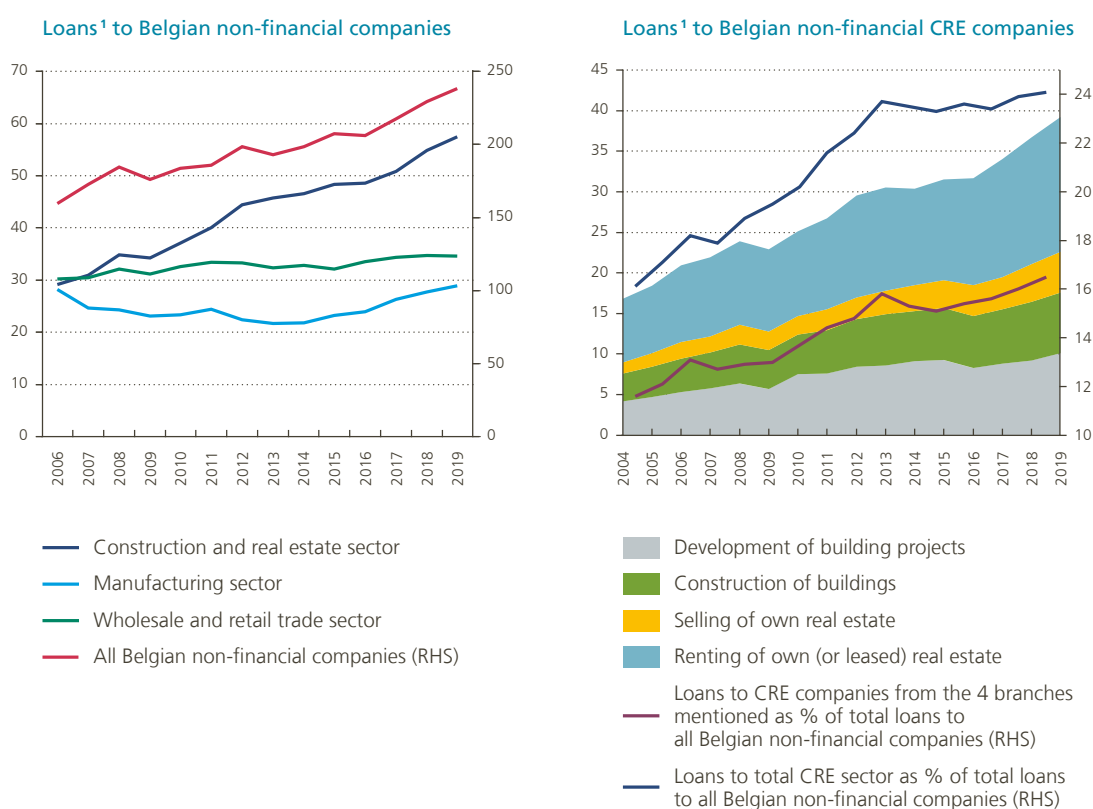
The CCCR data indicate that the amount of authorised credit to domestic non-financial companies from the construction and real estate sectors has shown a continuous increase since 2009: by the end of 2019 authorised credit thus reached a level of € 57 billion on a non-consolidated basis (left-hand panel of Chart 18). With an average annual growth rate of 5 % over the last decade, credit granted to the CRE sector has risen at a faster pace than credit to other activity sectors. Consequently, the share of the CRE sector in total bank credit to domestic non-financial corporations rose to 24 % in 2019, well above this real estate sector's share in the total value added of the corporate sector in GDP (13 %).

A detailed analysis of banks' credit exposures vis-à-vis non-financial corporations active in the most relevant real estate subsectors for commercial real estate analyses (see also point 2.3 below) reveals that all of them are witnessing strong growth in authorised credit lines (right-hand panel of Chart 18). Yet real estate developers and companies renting own properties are the types of counterparties that contribute most to the CRE exposures of the Belgian banking sector. These figures on banks' CRE exposures ask for some nuance though, as the risk profile of CRE companies can be very heterogeneous. Particularly the latter two subsectors, developers and renters of own real estate, include some specific types of counterparties, such as public-private partnerships and social housing companies which are quite different from the average non-financial CRE company from a risk perspective. Besides, a similar reasoning also applies to Belgian REITs.

**Chart 18**

### Exposure of the Belgian banking sector to Belgian non-financial companies active in the real estate sector

(non-consolidated data in € billions, unless otherwise stated)



Source: NBB (Central Corporate Credit Register).

<sup>1</sup> Authorised exposure amounts (maximum loan balance or authorised credit limit).

According to CCCR data, authorised credit for these financial institutions amounted to €7.8 billion at the end of 2019; however, when assessing these CRE exposures, it is necessary to bear in mind the strict regulations governing REIT debts and portfolios.

Via their lending activities, banks are also exposed to CRE through the collateral channel. In this regard, the supervisory reporting data reveal that Belgian banks' loans to non-financial companies collateralised by CRE amounted to about €54 billion on a consolidated basis at the end of 2019; the (maximum) amount of the CRE collateral considered here stood at €24 billion. Again, the largest part of these outstanding loans concerned Belgian debtors (€40 billion). Care should be taken, however, when interpreting the data on banks' CRE-related exposures, as there might be a substantial overlap between the collateral channel and the lending to the CRE sector.

However, loans collateralised by CRE are not limited to loans vis-à-vis non-financial companies: the supervisory reporting data also show loans to households and to other financial institutions for which CRE collateral had been received, albeit to a very limited extent.

As regards lending to REITs, which are part of the financial subsector "other financial institutions", their ability to contract mortgages is subject to regulatory limitations. Moreover, the information available in the annual reports of several REITs seems to suggest that it is not customary for these investors to pledge their buildings as collateral for debts to Belgian banks.

## 2.3 The non-financial professional CRE sector

Bank exposures to the professional CRE sector are approximated through the data on counterparties belonging to the construction and real estate sectors. From the financial stability point of view, developments in the activity and financial position of companies in these sectors therefore deserve special attention. The focus lies more particularly on a number of specific subsectors where activity most directly affects the supply in the CRE occupier and investment markets: the construction and development of buildings – whether or not at their own risk – (NACE 411 and 412) and the selling and renting of own real estate (NACE 681 and 682). The data compiled from annual accounts filed with the Central Balance Sheet Office, available up to the year 2018, provide some indications in that regard.

The growth of authorised bank credit in the period 2009-2018 discussed above seems to have kept pace with the activity in the subsectors considered, as can be inferred from a number of balance sheet items. The average annual growth rates for property stock available for sale (information available in full-format accounts only), for orders in progress and – specifically in the case of renters of own real estate – for tangible fixed assets in the form of buildings amounted all to about 5%, and hence a very similar figure to the growth of authorised bank credit. Total assets in the CRE sector have consequently grown strongly: expressed as a percentage of GDP they amounted to 28% in 2018, compared to 23% of GDP in 2009. The profitability of the non-financial professional CRE sector, measured by the return on assets (calculated as the net result before tax and financing costs in relation to total assets), has recorded a clear improvement since 2015; at 3.6% in 2018, it therefore exceeded the 2009 figure.

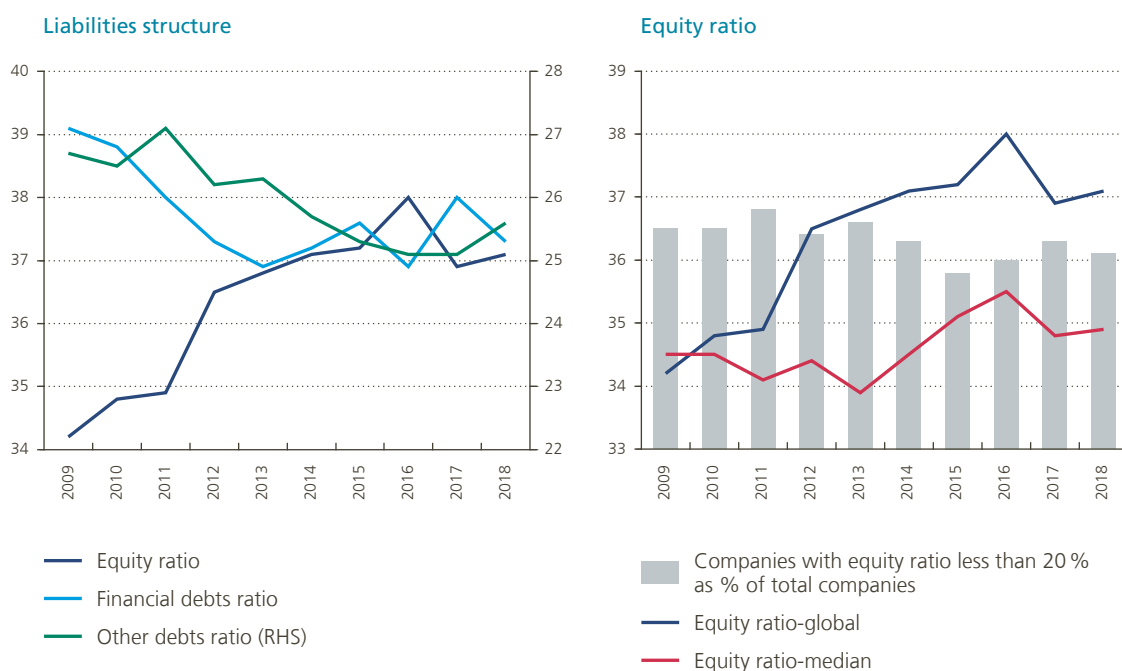
As far as the financial position is concerned, the data in the annual accounts evidence an improvement in the sectors' capital structure, despite the continuous growth of bank credit. The globalised value of the equity ratio for non-financial CRE companies increased to over 37% in 2018, while financial debts and other liabilities both declined in relative importance as a source of funding (left-hand panel of Chart 19). The improvement in the financial position was not a general phenomenon among CRE companies however, as suggested by the less pronounced upward movement of the median value of the equity ratio (right-hand panel of Chart 19). The share of companies with an equity ratio of less than 20% – i.e. the threshold usually referred to as critical – also remains all in all still high, namely 36% in 2018.



Chart 19

## Liabilities of CRE companies

(in % of total liabilities, unless otherwise stated)



Source: NBB (Central Balance Sheet Office).

Furthermore, globalised figures mask divergent situations depending on the subsector of activity. The equity ratio or degree of financial independence decreased over the period 2009-2018 in the subsector of sellers of own property, while the level of this ratio is clearly at a structurally higher level in the case of renters of own property. In addition, construction companies fund a significantly larger part of their economic activity through "other liabilities", including in particular advances received on contracts in progress, instead of through financial debts.

As regards financial debts, a dataset based on a constant sample of companies filling full-format accounts<sup>1</sup> over the period 2009-2018 gives a clearer picture of some underlying tendencies and differences between the branches (Chart 20).

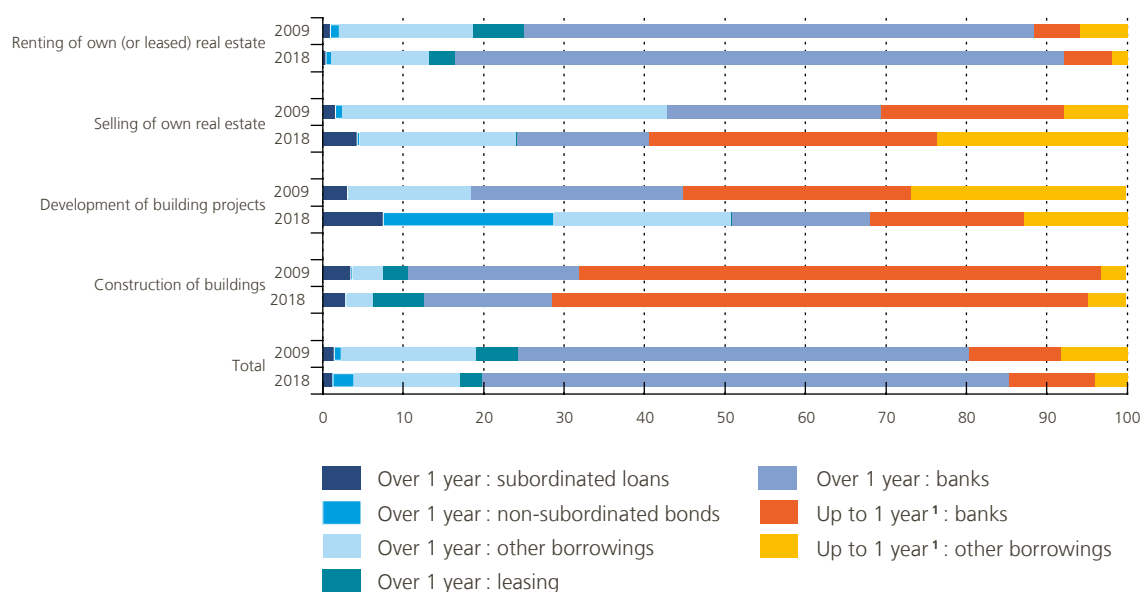
For the four subsectors taken together, a shift towards long-term bank debt has taken place over the decade considered: by the end of 2018, long-term debt accounted for 85 % of CRE companies' financial debts, with bank debts representing 66 percentage points of that figure. This shift is due entirely to the subsector renters of own property which accounts for a sizeable share in the sample as well as in the population as a whole. Nevertheless, in a financial stability context some nuance is required as this type of private CRE companies also includes companies renting social housing, a sub-branch closely linked to the regional public sector which therefore has an atypical business model and risk profile. In contrast to the subsector of renters of own

<sup>1</sup> Detailed information on financial debts is available in the full-format accounts only. Although the sample represents on average only 2 % of the number of companies in the population, the weight in terms of total assets (30 %) and financial debts (36 %) is clearly greater. Caution is, however, needed when generalising some of the findings based on these data, as funding sources such as bond issuance are less relevant in the case of SME's.

Chart 20

### Financial debts by maturity and by source

(data based on a constant sample of companies filling full-format accounts, in % of total financial debts)



Source: NBB (Central Balance Sheet Office).

1 Including debts payable after more than one year falling due within the year

real estate, construction companies and sellers of own property have turned more towards short-term funding over the last decade: in both subsectors, short-term financial debts predominated in 2018. However, the former are more dependent on bank debts than the latter, as sellers of own real estate seem to be able to rely more on intragroup borrowings. In the case of developers the most striking feature is the diversification of their (long-term) financial debts through the issuance of bonds and intragroup loans, in particular.

## Conclusion

This article confirmed again that both the residential and the commercial real estate markets have been very dynamic in Belgium in recent years. The low interest rate environment resulted in lower interest rates for debt-financed real estate transactions, but also increased the relative attractiveness of real estate as an investment asset. The residential real estate (RRE) market experienced a concomitant increase in transactions, house prices and mortgage lending. The commercial real estate (CRE) market was mainly characterised by high transaction volumes, fuelled by the attractiveness of this asset type to both domestic and cross-border investors (with the latter's market share exceeding that of the former since 2017).

At the same time, the Belgian residential and commercial real estate markets remained closely interconnected with the Belgian financial sector and the channels through which the dynamics of these markets can affect financial stability are manifold and complex. Due to the acceleration of mortgage loan growth over the past couple of years, Belgian banks and insurance companies are now exposed in a significant and systemic way to the Belgian RRE market. This exposure includes a number of so-called pockets of risks – where households

combine several high-risk features in their mortgage lending – and these risks have been building up further due to the deterioration in credit standards in recent years. The Bank has therefore taken various macroprudential measures to mitigate the risks in the Belgian RRE market. This article also assessed the CRE exposures of the Belgian financial sector for different types of institutions through their direct and indirect investments, as well as their lending activities. The (relative) importance of these direct and indirect CRE exposures varies considerably between the different types of financial institutions; in general, though, they all have shown a remarkable growth of CRE-related exposures in recent years. As a consequence, the Belgian financial sector is vulnerable to shocks affecting the Belgian RRE and CRE markets (especially if they affect both markets at the same time).

Against this background, the coronavirus crisis and the lockdown measures applied to the broad economy to contain the spreading of the coronavirus will undoubtedly shape future developments in the real estate markets, and are likely to reverse some of the very dynamic developments observed in both markets in recent years. Although it is too early to fully assess its impact on the Belgian economy and financial system, financial institutions should factor in the possibility that a number of real estate risks could materialise over the coming quarters. In the Belgian RRE market, a price correction cannot be ruled out if transactions – which declined significantly in March, April and May 2020 – do not pick up or as a result of the impact crisis on large segments of the household sector. Even though a number of measures have been taken to ease the debt service burden temporarily for the worst-affected debtors, it is not excluded that default rates for mortgage loans – which are currently very low – will increase in the future. To what extent the Belgian CRE investment market will be affected also remains unclear, but these impacts could include increases in vacancies, downward pressure on rents and falling CRE prices in the short- to medium term, and more structural changes in supply and demand on the CRE market in the long term.

From the financial stability point of view, a close monitoring of developments in the RRE market, the CRE market and the non-financial professional CRE sector remains thus warranted. In this regard, the future closing of data gaps in response to the related ESRB recommendation will be an important complement to the data already available. Moreover, the Bank will carefully monitor the risks in view of the recent developments and consider policy actions where necessary and appropriate, including through the release of the macroprudential capital buffer for banks' RRE exposure in case of a materialisation of the risks for which this buffer was built up, starting in 2013.



# Climate-change-related transition risk associated with real estate exposures in the Belgian financial sector

Brenda Van Tendeloo

With contributions from Louise Dumont, Alexandre Francart and Peter Reusens

## Introduction

The current coronavirus crisis calls for urgent action in order to manage the health risk and deal with the economic consequences of the lockdown measures. While it potentially pushes back the sustainability issues in the order of immediate priorities for both the financial sector as well as policy-makers, the coronavirus crisis is also a stark reminder of the potential wide-ranging consequences that the materialisation of certain events can have for global society if vulnerabilities to these shocks trigger systemic impacts. Climate change also has the potential to trigger unexpected and large shocks, but for which societies can prepare by taking measures to contain the probability and magnitude of the risk on the one hand and by building additional resilience to related potential unexpected shocks on the other hand. Even in these challenging circumstances of a global health crisis, we should thus not lose sight of the fact that climate change remains an urgent policy priority. Indeed, calls have been made to consider the opportunity of the required large-scale policy support for the recovery from the coronavirus crisis to foster the required transition towards low-carbon economies as well. There may even be a link between climate- and environment-related risks and the risk of pandemics.<sup>1</sup> It is important for both supervisors and financial institutions to be aware of the different climate and environmental risks and the potential interlinkages and reinforcing effects between them. Making the recovery from this crisis as sustainable as possible could be a big opportunity to contribute to the transition to a more sustainable economy and mitigate all these risks.

This article focuses specifically on real estate exposures of the Belgian banking sector and how they can be subject to transition risk. There is a growing consensus that meeting the targets set by the Paris agreement, aiming to keep global temperatures well below 2°C above pre-industrial levels, and the EU's climate neutrality ambitions by 2050<sup>2</sup> is necessary in order to avoid major physical climate-related risks. A transition towards a carbon-neutral and more sustainable economy is therefore necessary. On the other hand, if this transition is made too abruptly, this too can cause major losses due to abrupt structural changes in the economy. So, to avoid both physical and transition risks, the transition should be as gradual as possible. To this end, a coherent, decisive

<sup>1</sup> See for instance UNEP (2016) UNEP Frontiers 2016 Report on Emerging Issues of Environment Concern.

<sup>2</sup> This ambition was included in the EU long-term strategy "A clean planet for all" (2018), reaffirmed in the "The European Green Deal" (2019) and translated into a legislative proposal of a European Climate Law in March 2020.

and timely climate policy is required, with explicit actions that are notified well in advance for every market participant to be able to prepare for the changes that inevitably have to come. The longer action is postponed, the harsher the measures will have to be in order to attain the emission reduction targets, and the bigger the transition risks will be. As discussed in the thematic articles on climate risk in the Financial Stability Reports of 2018 and 2019 the Belgian financial sector may be confronted with both physical and transition risks. Under the assumption that policy measures and technological developments will succeed to a large extent in averting major physical risks, the Bank's current focus is thus mainly on climate-related transition risks facing the financial sector.

While it is evident that Belgium still has to make more effort in terms of greenhouse gas reductions, it is not entirely clear at this stage how it will be going about cutting emissions. Nevertheless, improving the energy efficiency of the Belgian building stock seems to be at least one very important avenue for reducing greenhouse gas emissions. As exposures to energy-inefficient buildings are likely to be more subject to transition risk, financial institutions are encouraged to gather relevant data on energy performance of their real estate exposure and take these potential transition risks into account. This recommendation was already mentioned in the 2019 NBB Financial Stability Report and subsequently communicated specifically to the financial sector. Policy-makers, on the other hand, are encouraged to agree on credible and concrete policy measures to reduce greenhouse gas emissions in short order, so as to reduce transition risks as much as possible.

Besides transition risk, real estate exposures are of course also subject to physical risk. The credit risk of exposures within sectors or geographies vulnerable to physical risk may be impacted, for example, through lower collateral valuations in real estate portfolios as a result of increased flood risk. Abrupt repricing of real estate due to higher flood risk may cause large negative wealth effects in some exposed regions that may in return weigh on demand and prices through second-round effects. A recommendation to financial institutions to gather relevant data in order to assess the vulnerability of their (real estate) exposures to physical risk was therefore also included in the 2019 Financial Stability Report. This article, however, focuses on transition risks related to real estate exposures and elaborates further on the importance of this issue.

## **1. Real estate as main contributor to greenhouse gas emissions in Belgium**

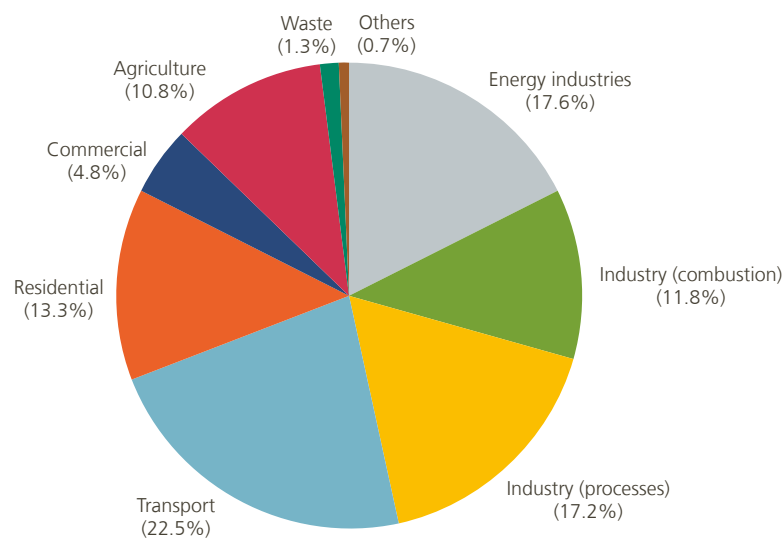
As illustrated in chart 1, buildings (13,3 % residential, 4,8 % commercial) are among the main contributors to greenhouse gas (GHG) emissions in Belgium. While Belgium's building stock has expanded by 12 % since 1995, it still includes a high proportion of old buildings. In addition, natural gas is the main source of heating in Belgian houses. Although greenhouse gas emissions from commercial buildings are much lower than those from residential buildings, emissions from the former tend to be on the rise (+28 % between 1990 and 2017), whereas emissions from the latter have been falling over the same period (–26 %) (NECP, 2019).

Based on aggregate data, provided by the three Belgian Regions, on the energy performance of residential buildings that have been newly built, sold or rented out over the last ten years, it appears that the share of energy-efficient buildings in the Belgian residential real estate market is currently very low, which is illustrated in chart 2<sup>1</sup>. While energy labels are not comparable across the Regions, we have taken into account the energy score, an indicator that specifies how much primary energy consumption there is per square metre of floor space (kWh/m<sup>2</sup>), and translated it to the Flanders label. This is also the label we will use throughout this document.

<sup>1</sup> Not all buildings are included in these databases. Mainly old buildings are not included, meaning the energy performance of the entire building stock could be worse than illustrated in Chart 2. On the other hand, the energy performance of buildings included in the database may have improved due to renovations after having obtained the energy performance certificate.

Chart 1

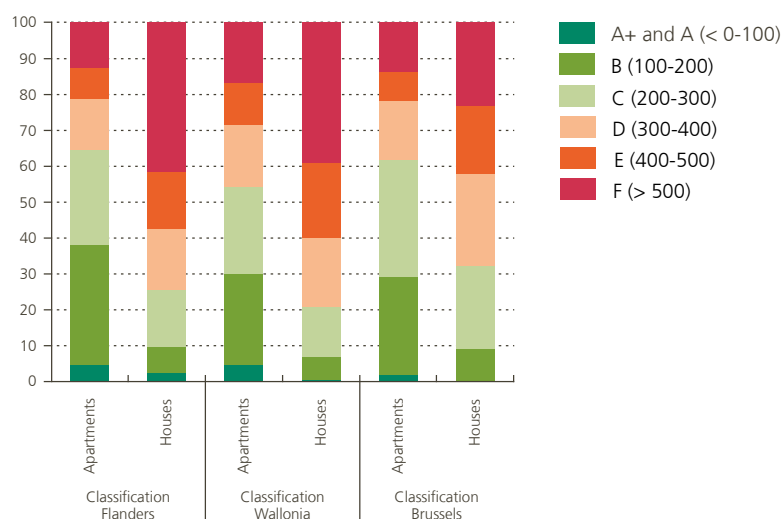
### Contributions to GHG emissions in Belgium, by sector (2017)



Source: Final National Energy and Climate Plan 2021-2030 Belgium.

Chart 2

### Distribution of energy-efficiency scores and labels (Flanders label) of residential buildings



Source: Regional energy/environmental agencies.  
Period covered by database: Flanders 2009-2019 – Wallonia 2010-2019 – Brussels 2011-2019.

## 2. Policy measures directed at reducing real estate GHG emissions

The European Union has set EU-wide energy and climate targets for 2030<sup>1</sup> (at least 40 % cuts in greenhouse gas emissions from 1990 levels, at least 32 % share for renewable energy and at least 32.5 % improvement in energy efficiency)<sup>2</sup>, without translating them into national objectives. The EU long-term strategy envisages climate neutrality by 2050, as published in November 2018, reaffirmed in the “The European Green Deal” (2019) and translated into a legislative proposal of a European Climate Law in March 2020. It is up to the individual Member States to determine their own contribution towards achieving these EU-wide objectives. Integrated National Energy-Climate Plans (NECP 2021-2030) and Low-Emission Long-Term Strategies (2050) had to be drawn up by each Member State and submitted to the European Commission by the end of 2019 and 1 January 2020, respectively. Belgium has adopted its final Energy-Climate Plan 2021-2030<sup>3</sup> in December 2019, taking into account the relevant plans of all three Regions. This plan will be decisive for actions to be taken on climate and energy in the coming years. According to this plan, Belgium will aim to reduce carbon emissions by 35 % by 2030, to boost the share of renewable energy to 18.3 % (EU target is 32 %) and to increase energy efficiency (26 % in primary energy and 12 % in final energy compared to 2005, EU target is 32.5 %). With some delay, Belgium’s long-term climate strategy for 2050 has also been approved in February 2020. In both medium-term and long-term plans, both the building and transport sector are mentioned as the most important sectors for taking further measures to reduce greenhouse gas emissions in Belgium.

With regard to long-term goals, all three Regions are hoping to reach an average of 100 g/Kwh for the residential building stock by 2050, with Brussels even setting this target for the entire building stock. For tertiary buildings (occupied by public authorities, associations and companies providing services), carbon neutrality is envisaged by 2050.

Several federal and regional measures are mentioned in order to lower GHG emissions of buildings in the NECP. All Regions are planning large-scale renovations of their public buildings. On a federal level, the aim is to encourage renovation and improve energy efficiency in buildings in order to achieve energy neutrality of federal public buildings of 50 % by 2030 and 100 % by 2040. Other measures aimed at improving the energy efficiency of the existing housing stock include stricter norms for renovation and subsidies for better building insulation. In addition, a reduced VAT rate for demolition and reconstruction is envisaged, subject to approval by the European Commission.

Next to renovating buildings, other measures are mentioned, such as a ban on oil-based heating systems in new buildings as of 2021 and existing buildings from 2035 (Flanders), and the prohibition of natural gas-based heating systems in new building areas. Most of these measures, however, seem to be directed towards new buildings, for which energy efficiency requirements are already in place, and thus have a limited impact on the existing housing stock.

More generally, the NECP also includes a plan for an environmental energy tax, which will be drafted by the federal State by 2021, after consulting the different Regions. Such a measure is likely to have an impact on energy renovations as these will become more profitable but would also help to reduce greenhouse gas emissions in other sectors.

1 See the new (recast) Renewable Energy Directive (EU) 2018/2001 and the Energy Efficiency Directive 2012/27/EU, as amended by Directive (EU) 2018/2002.

2 These objectives have not been translated into national objectives, except for the reduction of greenhouse gas emissions. This objective has been translated by the European Union through the ‘2030 climate and energy framework’ into a reduction of 43% for EU Emission Trading System (ETS) sectors and 30% for non-ETS sectors (compared to 2005), of which the latter has been translated into individual binding targets for Member States, being 35% for Belgium.

3 See [www.nationaalenergieklimaatplan.be](http://www.nationaalenergieklimaatplan.be).



Belgium's current NECP with targets for 2030 does not meet the targets set by the European Union and, at the current renovation rate, the targets for 2050 as set by the federal and regional governments will not be met either. While more than 95 % of the Belgian housing stock currently does not meet the energy label A target (see chart 2 above), and more than 60 % of Belgian houses are more than 50 years old (VEA, 2019b and Statbel 2019), the need for renovation and in some cases demolition and reconstruction is huge. To raise the renovation rate from the current level of less than 1 % to the required 3 %, additional measures will have to be taken (VEA, 2019b).

A plausible policy measure would be to impose a minimum energy efficiency requirement for the existing housing stock before 2050, as in the Netherlands, where commercial buildings will have to meet a minimum energy standard from 2023 onwards, or in the UK, where properties with an energy performance label in the lowest two categories (F and G) may not be rented out as new leases or renewals as of April 2018, and this will be extended to existing leases from 1 April 2023, with significant penalties for non-compliance.

However, getting the entire housing stock on to an energy label A would require major investments. The exact investment required to achieve the energy label A target of course varies depending on the age, type and size of the building. While estimates are very difficult, the average cost for a house to become energy label A in Flanders is estimated at somewhere between 40 000 and 65 000 euro (Ryckewaert *et al.*, 2019; VEA 2019b; SERV, 2019). While the energy renovation costs per home tend to be the same in absolute terms, the energy renovation costs for the poorest owners is much higher relative to their income (Ryckewaert *et al.*, 2020). In addition, the average renovation costs for other (non-energy) general housing quality defects for these poorest owners are also substantially higher in absolute terms (Ryckewaert *et al.*, 2020). The total investment cost for attaining a full energy-efficient housing stock by 2050 is estimated to be € 110 billion for Flanders<sup>1</sup>, € 28.8 billion for Brussels<sup>2</sup> and € 63 billion for Wallonia<sup>3</sup>. Although this investment would result in major energy savings, the payback time of these energy renovations in terms of energy cost savings can still be very long, depending of course on the evolution of energy prices and potential energy taxes.

Public and private financing mechanisms may therefore be necessary, especially for poorer households. To some extent, the NECP is already considering some measures to avoid or reduce energy poverty, such as subsidies for renovating rented houses and houses of certain protected customers<sup>4</sup>, social energy tariffs and free energy audits of houses. The Energy Efficient Mortgage Initiative (EEMI)<sup>5</sup> is an example of a private initiative aiming to encourage energy-efficiency renovations by reducing the cost of lending for these investments. In addition, while more renovations and rebuilding can have a positive impact on the construction sector and create many job opportunities, potential supply constraints in the building sector would also need to be tackled.

1 Ryckewaert *et al.* (2019).

2 *Energieklimaatplan Brussels Hoofdstedelijk Gewest 2030* (2019).

3 *Stratégie Wallone de rénovation énergétique du bâtiment à long terme* (2017).

4 Customers entitled to the maximum social price for electricity and natural gas qualify as 'protected customers'.

5 The Energy Efficient Mortgage Initiative aims with its Energy Efficient Mortgage Action Plan (EeMAP) to create a standardised "energy-efficient mortgage", which gives building owners an incentive to improve the energy efficiency of their buildings or acquire an already energy-efficient property by way of preferential borrowing conditions. At the heart of this Energy Efficient Mortgage Initiative is the assumption that energy efficiency has a risk-mitigation effect for banks as a result of its impact on borrowers' ability to service their loans and on the value of the property. This means that energy-efficient mortgages will carry a lower risk on banks' balance sheets and could, therefore, qualify for better capital treatment.

### 3. Transition risk related to real estate exposures in the Belgian financial sector

While policy measures such as imposing minimum energy efficiency standards or encouraging energy-saving renovations through energy taxes could provide major opportunities for banks, as loans can be offered to finance these renovations, such policy measures could create transition risk for the existing stock of loans collateralised by real estate in several ways, especially if these measures need to be taken abruptly.

With regard to setting minimum energy efficiency standards, if owners make the energy efficiency improvements, owner-occupiers will save on their energy bills, thus improving mortgage repayment capability. Also, tenants will have lower energy costs and will be more able to pay their rent, in turn reducing the credit risk of the owner. On the other hand, the extra investment required may, of course, also have a negative impact on borrowers' repayment capacity (or their financial margin to absorb unexpected income shocks), at least in the short term when the effect of energy savings might not yet be fully felt.

However, if the necessary adjustments are not made to meet the new standards, due to a lack of resources for the additional investment, inability to find a construction firm due to the high demand caused by the new measure, or simply because people are not willing to make the investment, the value of these energy-inefficient buildings could be severely affected. This could potentially have a significant impact on real estate markets and collateral values for mortgage loans, effectively pushing up the credit risk of these loans. Credit risk of buy-to-let mortgages will also increase if home owners can no longer rent out buildings that do not meet the energy-efficiency standards, raising the probability of default.

The introduction of an energy tax, which is planned to be drafted by the federal State by 2021, may also push up the credit risk of mortgage loans granted to owners of energy-inefficient homes, as a rise in energy prices could reduce the reimbursement capacity of the families and businesses occupying these buildings, while more tenants may be unable to pay their rent due to higher energy costs.

A number of studies have already analysed the relationship between the credit risk of mortgages and the energy efficiency of the property used as their collateral. The Bank of England (2020) has found evidence suggesting that, in the UK, mortgages on energy-efficient properties are less frequently in payment arrears than mortgages on energy-inefficient properties. In its analysis, the BoE has controlled for several other determinants of mortgage defaults, such as borrower income and the loan-to-value ratio. Other factors such as financial literacy, risk aversion or time preference of the borrower have not been controlled for, though. So, a causal relationship between energy efficiency and lower mortgage payment arrears cannot be derived per se from this analysis, although energy efficiency does prove to be a relevant predictor of mortgage payment arrears. An older study by Kaza *et al.* (2015) also found that both default and prepayment risks are significantly lower in mortgages on energy-efficient properties in the United States, although the authors did not control for some important characteristics such as borrower income, which is important as higher EPC levels can be expected to be associated with higher income levels (Adalilara *et al.*, 2015).

The European Commission's Joint Research Centre (JRC) has carried out an extensive literature review (Zancanella *et al.*, 2018), indicating that energy efficiency improvements raise the price of residential real estate by 3-8 %, while pushing up residential rent by 3-5 %. For commercial buildings, the sales price premium seems to be even higher (10 %-20 %), while the increase in rent is somewhat lower (2-5 %). Differences are of course shown across regions and countries, as well as different property types. While there is already a vast range of literature on the link between energy efficiency and house prices in various European and non-European countries, studies for Belgium are limited. A study by S. Damen (2019) indicated that residential property in Flanders with an energy label B are being sold at a price that is on average 10.9 % higher than a comparable house with an energy label E. In addition, the time it takes to sell the more energy-efficient houses is on average 25 days shorter. The price difference for apartments is smaller (+3.2 %) and there appears to be no significant difference in the time

it takes to sell an apartment based on its energy efficiency. A potential explanation can be the lower average energy consumption of apartments<sup>1</sup>. What is more, the price difference for energy-efficient houses appears to have widened over time, which is consistent with the assumption that people are becoming more aware of the relevance of energy efficiency in their homes. With regard to the future, with a possibility of new policy measures raising the minimum energy efficiency standards of houses and a potential increase in energy prices, one can only expect this price difference to widen.

As such, it appears that energy efficiency is a determining factor for both the collateral value of mortgage loans and the probability of default on these loans. As future policy measures such as imposing minimum energy efficiency standards and energy taxes are likely to make these relationships even stronger, energy efficiency is important information for financial institutions to take into account in the credit risk assessments of their mortgage portfolios.

#### 4. Addressing transition risk related to real estate exposures

As the energy performance of the real estate investments and buildings financed by financial institutions may be an important risk factor for the transition risk to which the Belgian financial sector is potentially exposed, it is important that financial institutions start analysing to what extent the energy efficiency of their real estate exposures may impact their current and future credit risk. As revealed by the sector survey performed by the Bank in 2018, institutions currently do not have information on the energy performance of their real estate exposures in their information systems (NBB FSR, 2019). The Bank has therefore actively supported the financial sector's request to gain direct access to the regional databases containing energy performance certificates of residential buildings that have been newly built, rented out or sold over the last ten years<sup>2</sup>. However, as this access to regional databases will have to be agreed upon politically, and has to take into account certain technical considerations and data confidentiality, this may not be possible in the short term.

In view of these uncertainties, the Bank has reiterated its recommendation to the sector, as already mentioned in the 2019 Financial Stability Report, to immediately start gathering energy performance certificates for financed real estate, and not merely wait for possible access to the regional databases. The gathering of these certificates is also essential for the commercial real estate market, for which the certificates (LEED, BREEAM or other relevant certificates) are not collected in a central database. While the Bank is well aware that this may involve certain difficulties, such as the unavailability of the energy performance certificate at the time of conclusion of the loan agreement, the importance of the information contained in these certificates is adequate justification for financial institutions to put in place as soon as possible the necessary procedures to systematically obtain the energy performance certificates for new loans that finance or are guaranteed by residential or commercial real estate and, as far as possible, for existing loans with a significant amount outstanding, as well as for all significant direct investments in this market.

While financial institutions can analyse the past relationship between energy efficiency and credit risk of their real estate exposures once they have access to energy efficiency data, the impact in terms of transition risk will have to be assessed using scenario analyses and stress testing, which is generally considered the best way to assess climate-related risk (NBB FSR 2019, NGFS 2019). The NBB has performed a rough scenario analysis of a potential abrupt introduction of a minimum energy performance standard for residential real estate on the banking sector's mortgage portfolio, as described in the box below. Although very useful to gain some insight

1 290 kWh/m<sup>2</sup> compared with 481kWh/m<sup>2</sup> for houses) (VEA, 2019a).

2 Flanders 2009-2019 – Wallonia 2010-2019 – Brussels 2011-2019.

into the potential risks and effects, it should be borne in mind that climate-related risks have an impact on the economy and financial sector through various direct and indirect transmission channels, and climate-economic models are inherently incapable of representing all these interactions, effectively overlooking many social and political forces that will strongly influence the way the world evolves. The outcomes of a scenario-based analysis should therefore be assessed very cautiously and cannot suffice to guide decision-making (BIS, 2020).

What is clear, though, is that the longer action is postponed, the more abrupt the policy measures will have to be in order to attain the targets necessary to combat climate change and the larger the actual transition risks resulting from these measures will be. The financial sector itself has realised the urgency of the matter and is therefore trying to encourage energy-efficient renovation with the Energy Efficient Mortgage Initiative. If risk analyses show that loans for improving the energy efficiency of buildings involve lower risks, the institutions could charge cheaper rates for such loans. By providing cheaper funding for energy-efficient renovations, home owners and businesses are encouraged to make their buildings more energy-efficient, and banks can contribute to mitigating potential future transition risk.

## BOX 1

### Scenario analysis of an abrupt introduction of a minimum energy performance standard

A sudden introduction of a minimum energy efficiency standard for real estate could lead to a fall in the value of buildings that are not brought up to standard, due to a lack of resources to make the additional investment, inability to find a construction firm due to high demand caused by the new measure, or because people are not willing to make the investment.

In order to assess the potential impact of such a policy measure, assumptions need to be made as to the percentage of buildings that will not be brought up to standard. In addition, assumptions have to be made regarding the price impact of property that does not meet the standard. While we have an indication of the current price impact of differences in energy efficiency of residential property in Flanders, based on a study by Damen (2019), this price impact will most likely be larger once a binding policy measure is announced and put in place. In addition, the price impact may also differ across the different Regions within Belgium. Assumptions would also need to be made regarding the mortgage default rates, which would most likely be higher for less energy-efficient home loans, as shown in the literature (see section 3), and which may also rise, especially if other measures such as energy taxes are taken as well. It should also be borne in mind that households with the lowest incomes generally have higher energy-renovation costs relative to their income, as found by Ryckewaert *et al.* (2019) for Flanders. Finally, the energy performance certificates of all the residential real estate exposures of the banks would need to be known. While this information is currently unavailable, we can use the energy performance information from the different Regions and assume the mortgage portfolios of all banks are distributed accordingly.

Given the importance of residential mortgages for the Belgian banking sector (see the other thematic article in the Financial Stability Report on the Belgian real estate market), the result of this scenario analysis is quite material. However, because of the many assumptions that had to be made, exact numbers will not be published. A similar analysis for commercial real estate is currently not possible due to the lack of data regarding energy efficiency of these buildings as there is no central database gathering this data.

## Conclusion

As it appears that the energy inefficiency of real estate exposures may be an important risk factor for the transition risk to which the Belgian financial sector is potentially exposed, it is of utmost importance that financial institutions start gathering data on this subject. While the Bank is in favour of financial institutions having access to the regional databases containing information on energy performance of residential buildings, financial institutions need to start as soon as possible gather this data themselves, both for residential and commercial real estate exposures. The financial sector was informed about this recommendation via the thematic article in the 2019 Financial Stability Report and a letter to the sectoral federations. It is important that financial institutions start analysing to what extent the energy efficiency of their real estate exposures may impact their current and future credit risk and subsequently manage and mitigate the transition risk associated with their real estate exposures.

## References

- Adalilara S. N., S. Alkibayb and Z. Eser (2015), "Ecovillages as a destination and a study of consumer approaches to ecovillages", *Procedia Economics and Finance*, 23, 539-546.
- BIS (2020), "The Green Swan. Central banking and financial stability in the age of climate change, January 2020", 115p.
- Brussels Hoofdstedelijk Gewest (2019) Energie-Klimaatplan 2030.
- COM (2014) 15 final. "A policy framework for climate and energy in the period from 2020 to 2030".
- COM (2018) 773 final. "A clean planet for all, A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy".
- COM (2019) 640 final, "The European Green Deal Communication".
- COM (2020) 80 final "Proposal for a regulation of the European Parliament and of the Council establishing the framework for achieving climate neutrality and amending Regulation (EU) 2018/1999 (European Climate Law).
- Damen (2019) Het effect van het EPC en energetische kenmerken op de verkoopprijs van woningen in Vlaanderen. Manuscript. KU Leuven.
- Guin, B. and P. Korhonen (2020), "Does energy efficiency predict mortgage performance?", Bank of England Staff Working Paper, 18p.
- Kaza, N., R. G. Quercia, and C.Y. Tian (2015), "Home Energy Efficiency and Mortgage Risks", *Cityscape: a journal of policy development and research*.
- NGFS (2019), Network for Greening the Financial System, First Comprehensive Report, April 2019.
- Ryckewaert, M., K. Van den Houte and L. Vanderstraeten, m.m.v. J. Leysen, (2019) Inschatting van de renovatiekosten om het Vlaamse woningpatrimonium aan te passen aan de woningkwaliteits- en energetische vereisten, Steunpunt Wonen, Leuven, 93 p.
- SERV (2019) Klimaat en energiebeleid 2019-2024 van alfa tot omega. Achtergrondrapport.
- Statbel (2019) Statistieken over gebouwenpark in België, beschikbaar op <https://statbel.fgov.be/nl/themas/bouwen-wonen/gebouwenpark>.
- UNEP (2016) UNEP Frontiers 2016 Report on Emerging Issues of Environment Concern.
- Vlaams Energieagentschap (2019a), werkdokument 2019: renovatiepact 2.0: Verhogen van de renovatiegraad van bestaande woningen, September 2019.
- Vlaams Energieagentschap (2019b), "Vlaamse renovatiestrategie 2050: de weg naar energiezuinige en koolstofarme gebouwen", Presentatie Studiedag 5 jaar Renovatiepact.
- Waalse regering (2017) Stratégie wallonne de rénovation énergétique du bâtiment à long terme.
- Zancanella, P, P. Bertoldi and B. Boza-Kiss (2018), "Energy Efficiency, the value of buildings and the payment default risk", JRC science for policy report, 45p.

## Statistical annex





# List of tables

## Tables relating to Belgian credit institutions

1. Number of Belgian credit institutions	155
2. Key figures	156

## Tables relating to Belgian insurance companies

3. Number of Belgian insurance companies	157
4. Main components of insurance companies' assets	158
5. Main components of insurance companies' liabilities	159
6. Components of the income statement of insurance companies	160



Table 1

## Number of Belgian credit institutions

	2013	2014	2015	2016	2017	2018	2019
Credit institutions governed by Belgian law with Belgian majority shareholding	15	15	17	15	14	14	14
Credit institutions governed by Belgian law with foreign majority shareholding	24	22	20	19	19	18	17
EU Member States	19	17	13	12	12	11	10
Other States	5	5	7	7	7	7	7
Belgian branches of foreign credit institutions	65	66	62	56	54	55	54
EU Member States	55	56	52	48	46	47	48
Other States	10	10	10	8	8	8	6
<b>Total</b>	<b>104</b>	<b>103</b>	<b>99</b>	<b>90</b>	<b>87</b>	<b>87</b>	<b>85</b>

Source: NBB.

Table 2

## Key figures

(data on consolidated basis)

	2012	2013	2014	2015	2016	2017	2018	2019
<b>A. Large banking groups</b>								
Balance sheet total (in billion euro)	857.1	774.7	815.6	802.7	849.7	839.6	847.0	888.2
Customers' holdings (in billion euro)	518.2	516.5	544.0	559.2	575.7	595.3	598.2	623.3
Loans and advances to customers (in billion euro)	432.8	444.7	463.1	476.1	485.9	506.3	531.4	555.7
Risk asset ratio (in %)	17.9	18.5	16.9	17.8	17.5	17.8	17.7	17.6
Net after tax results (in billion euro)	1.2	2.6	3.9	5.2	4.8	5.2	5.3	5.6
Return on average assets (in %)	0.1	0.3	0.5	0.6	0.6	0.6	0.6	0.6
Return on average equity (in %)	2.7	5.6	7.8	10.3	9.4	9.4	9.2	9.6
Cost-income ratio (in %)	71.5	60.0	60.9	58.3	56.5	56.9	59.9	57.7
<b>B. Total of Belgian credit institutions</b>								
Balance sheet total (in billion euro)	1 048.7	960.6	996.3	970.3	1 021.9	993.8	993.2	1 047.8
Customers' holdings (in billion euro)	620.4	622.1	659.1	676.0	686.6	708.5	717.5	751.8
Loans and advances to customers (in billion euro)	504.7	518.1	538.6	547.2	565.8	590.2	618.5	648.9
Risk asset ratio (in %)	18.2	18.7	17.6	18.7	18.8	19.0	18.8	18.8
Net after tax results (in billion euro)	1.6	3.3	4.5	6.1	5.7	5.9	5.6	6.1
Return on average assets (in %)	0.1	0.3	0.5	0.6	0.6	0.6	0.5	0.6
Return on average equity (in %)	3.0	5.9	7.7	10.1	9.1	8.9	8.0	8.7
Cost-income ratio (in %)	72.1	60.8	61.2	58.6	58.4	58.2	61.2	59.5

Source: NBB.

Table 3

## Number of Belgian insurance companies

	2012	2013	2014	2015	2016	2017	2018	2019
<b>A. By the location of their registered office</b>								
Belgium <sup>1</sup>	88	84	81	76	73	68	69	68
European Economic Area <sup>2</sup>	46	46	47	43	45	46	46	45
Rest of the world <sup>3</sup>	0	0	0	0	0	0	0	0
<b>Total</b>	<b>134</b>	<b>130</b>	<b>128</b>	<b>119</b>	<b>118</b>	<b>114</b>	<b>115</b>	<b>113</b>
Free service provision <sup>4</sup>	942	933	950	970	999	917	1 095	1 118
<b>B. By specialisation<sup>5</sup></b>								
Life insurance	24	23	23	21	22	20	16	16
Non-life insurance	83	81	79	72	70	67	72	71
Life and non-life insurance	25	24	24	24	24	25	24	24
Reinsurance companies	2	2	2	2	2	2	3	2
<b>Total</b>	<b>134</b>	<b>130</b>	<b>128</b>	<b>119</b>	<b>118</b>	<b>114</b>	<b>115</b>	<b>113</b>

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 on a company basis, in € billion)

	2012	2013	2014	2015	2016	2017	2018 <sup>1</sup>	2019 <sup>1</sup>
<b>Investments</b>	242.1	249.6	258.3	259.7	261.4	263.9	272.8	290.6
All activities with the exception of class 23	218.4	223.5	229.6	229.2	229.6	228.2	236.8	246.1
Shares <sup>2</sup>	9.3	11.6	12.6	13.3	13.5	14.1	14.3	15.5
Debt securities	173.3	171.7	173.8	171.1	171.4	169.2	168.1	174.6
Land and buildings	3.4	3.2	3.1	3.0	2.9	2.8	2.8	2.7
Mortgage loans	9.4	10.1	10.4	10.8	11.7	12.7	13.6	16.7
Investments in affiliated undertakings	15.7	16.6	18.3	18.6	17.2	17.6	25.7	22.4
Others	7.4	10.2	11.3	12.5	13.0	11.8	12.3	14.2
<b>Class 23</b>	<b>23.7</b>	<b>26.2</b>	<b>28.7</b>	<b>30.4</b>	<b>31.8</b>	<b>35.8</b>	<b>36.0</b>	<b>44.6</b>
Shares <sup>2</sup>	13.8	14.7	16.3	18.5	19.9	23.6	23.6	32.0
Debt securities	9.1	10.7	11.6	10.9	10.9	11.1	11.5	11.5
Others	0.8	0.7	0.9	1.0	1.0	1.0	0.9	1.0
<b>Reinsured part of technical provisions</b>	<b>7.4</b>	<b>6.1</b>	<b>6.9</b>	<b>9.4</b>	<b>7.2</b>	<b>6.3</b>	<b>6.1</b>	<b>9.7</b>
<b>Claims and other assets</b>	<b>15.1</b>	<b>15.0</b>	<b>15.6</b>	<b>17.1</b>	<b>16.3</b>	<b>14.1</b>	<b>14.6</b>	<b>18.9</b>
<b>Total</b>	<b>264.5</b>	<b>270.7</b>	<b>280.8</b>	<b>286.1</b>	<b>284.9</b>	<b>284.4</b>	<b>293.5</b>	<b>319.2</b>

Source: NBB.

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

Table 5

**Main components of insurance companies' liabilities**

(data on a company basis, in € billion)

	2012	2013	2014	2015	2016	2017	2018 <sup>1</sup>	2019 <sup>1</sup>
Own funds	13.7	13.7	14.9	14.4	13.5	13.0	19.6	22.8
Technical provisions	226.6	231.6	240.1	242.6	243.4	245.1	243.6	262.1
Life insurance (with the exception of class 23)	170.9	172.6	175.4	175.3	173.5	171.9	170.5	172.2
Class 23	23.7	26.2	28.7	30.5	31.8	35.8	36.0	44.6
Non-life insurance	25.4	25.8	28.1	28.5	29.4	28.8	28.5	33.9
Others	6.6	7.0	7.9	8.3	8.8	8.6	8.6	11.4
Reinsurance companies' deposits	5.3	4.3	3.9	6.4	4.2	3.3	3.5	3.9
Creditors' claims	16.3	18.6	19.0	20.3	20.3	20.1	22.7	26.3
Other liabilities	2.7	2.5	2.9	2.6	3.5	2.9	4.1	4.1
<b>Total</b>	<b>264.5</b>	<b>270.7</b>	<b>280.8</b>	<b>286.1</b>	<b>284.9</b>	<b>284.4</b>	<b>293.5</b>	<b>319.2</b>

Source: NBB.

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

Table 6

## Components of the income statement of insurance companies

(data on a company basis, in € billion, unless otherwise stated)

	2012	2013	2014	2015	2016	2017	2018 <sup>1</sup>	2019 <sup>1</sup>
<b>A. Technical account in life insurance</b>								
Net premiums written	20.7	15.9	16.0	15.1	14.4	14.4	15.3	16.3
Claims paid	(-)	18.3	18.1	19.7	18.7	17.6	16.7	17.1
Change in the provisions for claims	(-)	4.2	5.6	2.0	1.4	1.3	0.6	-6.5
■ all life insurance classes excluding class 23		2.9	3.6	1.4	0.6	0.2	3.0	-10.7
■ adjustments on class 23	1.8	1.3	2.0	0.6	0.7	1.1	-2.4	4.3
<b>Premiums after insurance costs</b>	-6.6	-6.6	-7.7	-6.6	-5.7	-4.4	-0.8	-7.3
Net operating expenses	1.7	1.7	1.6	1.7	1.6	1.7	1.7	1.7
<b>Result before investment income</b>	-8.3	-8.2	-9.3	-8.3	-7.3	-6.1	-2.5	-9.0
Net investment income	9.5	8.9	10.0	8.5	8.3	7.6	3.7	10.7
■ all life insurance classes excluding class 23	7.7	7.6	8.0	7.9	7.6	6.4	6.1	6.4
■ adjustments on class 23	1.8	1.3	2.0	0.6	0.7	1.1	-2.4	4.3
<b>Technical result life insurance</b>	1.2	0.6	0.7	0.2	1.1	1.4	1.3	1.6
<b>B. Technical account in non-life insurance</b>								
Net premiums earned	10.8	11.1	12.3	12.7	12.7	12.7	12.8	15.1
Claims paid	(-)	7.3	8.1	8.0	8.2	7.8	8.1	9.7
Change in the provisions for claims	(-)	0.7	0.5	0.7	0.5	0.6	-0.3	-0.6
<b>Premiums after insurance costs</b>	3.0	3.2	3.8	4.0	4.0	4.3	4.4	4.8
Net operating expenses	3.1	3.2	3.6	3.7	3.8	3.9	3.9	4.7
<b>Result before investment income</b>	-0.1	-0.1	0.2	0.3	0.2	0.4	0.6	0.1
Net investment income	1.1	1.2	1.3	1.3	1.2	1.2	1.1	1.2
<b>Technical result non-life insurance</b>	1.0	1.2	1.5	1.6	1.4	1.6	1.7	1.3
<b>C. Non-technical account</b>								
Total technical result life and non-life insurance	2.3	1.8	2.1	1.8	2.5	3.0	3.0	2.9
Residual net investment income	0.9	0.3	0.4	0.3	-0.2	0.4	1.0	0.7
Other and exceptional results and taxes	-0.7	-0.7	-1.2	-0.9	-1.0	-1.1	-0.8	-0.9
<b>Net result</b>	2.4	1.4	1.3	1.2	1.3	2.3	3.2	2.7
<i>p.m. Return on equity (in %)</i>	17.8	10.2	8.8	8.2	9.8	17.5	16.3	11.9

Source: NBB.

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



National Bank of Belgium  
Limited liability company  
RLP Brussels – Company number : 0203.201.340  
Registered office: boulevard de Berlaimont 14 – BE-1000 Brussels  
[www.nbb.be](http://www.nbb.be)



Publisher

Jean Hilgers

Executive Director

National Bank of Belgium  
Boulevard de Berlaimont 14 – BE-1000 Brussels

Contact for the publication

Jo Swyngedouw

Deputy Director  
Prudential Policy and Financial Stability

Tel. +32 2 221 44 75 – Fax +32 2 221 31 04  
[jo.swyngedouw@nbb.be](mailto:jo.swyngedouw@nbb.be)

© Illustrations: National Bank of Belgium

Cover and layout: NBB CM – Prepress & Image

Published in July 2020

