



# RISK REPORT 2022

Belfius



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# 2022 – key figures

## RATIOS

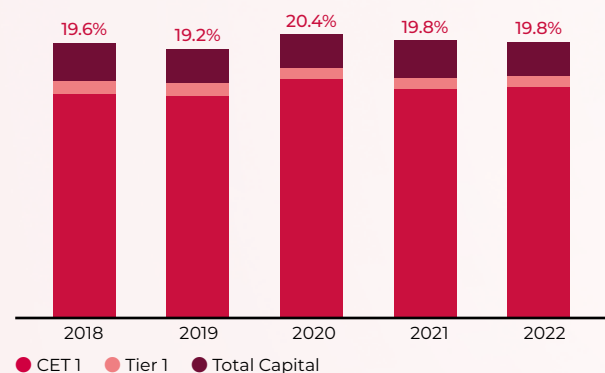
CET 1	LEVERAGE RATIO	LCR	NSFR
Percent	Percent	Percent	Percent
<b>16.55</b> (16.40)	<b>6.26</b> (7.13)	<b>173</b> (195)	<b>135</b> (136)

## CREDIT

COST OF RISK	ASSET QUALITY RATIO	COVERAGE RATIO
EUR Million	Percent	Percent
<b>-106</b> (+1)	<b>1.82</b> (1.95)	<b>60</b> (60)

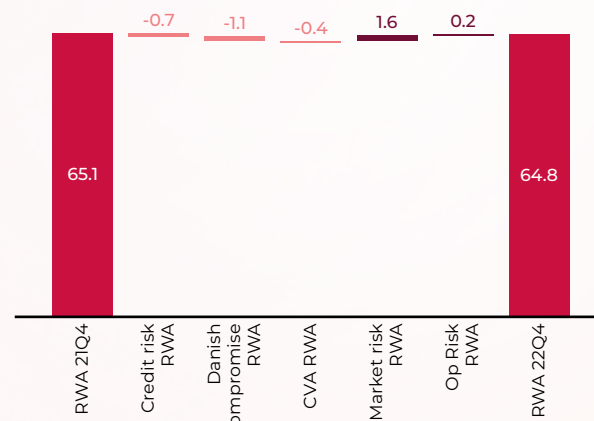
## Capital ratio evolution

Percent



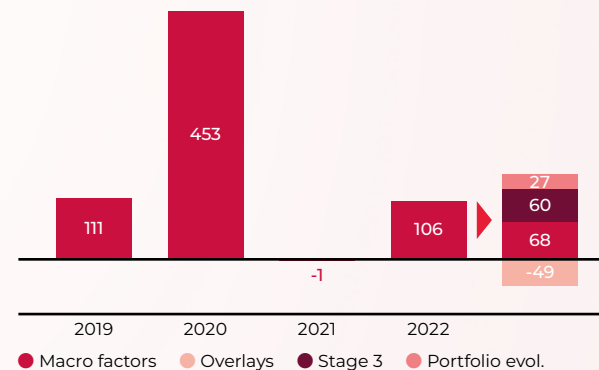
## Developments in risk-weighted Assets

EUR Billion



## Cost of risk evolution

EUR Million





# 2022 – key figures

## RATINGS

MOODY'S

**A1 stable** (A1 stable)

S&P

**A stable** (A- Stable)

FITCH

**A- stable** (A- Stable)

MREL CAPACITY  
(TREA)

Percent

**28.4** (28.8)

NFC EXPOSURE TO CLIMATE SENSITIVE SECTORS  
(% of total loans & advances)

Percent

**22** (21)

OPERATIONAL LOSSES  
(3 LAST YEAR AVERAGE)

EUR Million

**2.53** (2.93)

BANKING BOOK EXPOSURES TOWARDS SECTORS  
THAT HIGHLY CONTRIBUTE TO CLIMATE CHANGE

EUR Million

**28,806**

# Summary of risk profile

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2022 has been another challenging year from macro and geopolitical perspectives, setting the ground for the new proactively anticipated era, while many uncertainties remain

Uncertainty and the resulting volatility from the macroeconomic and geopolitical factors have dominated the course of 2022, considerably weakening the post-pandemic recovery of the Belgian economy. Inflation has risen sharply reaching more than 10% in 2022, reflecting strong post-pandemic demand, supply chain bottlenecks, higher energy and food prices, being further fuelled by the rising wage costs and still accommodative monetary policies in the first half of the year. Later on, starting from July 2022, the ECB began raising its key interest rates, with the policy tightening aiming to ensure a timely return of inflation to the 2% medium-term target, however, at the price of lower aggregate demand and economic growth. As a result, the economy was expected to experience a contraction in the fourth quarter of 2022.

Nevertheless, those fears eased with the latest publication of the NBB, where the reported Belgian GDP in the last quarter of 2022 still grew by 0.1%, quarter-on-quarter. The annual real GDP growth has therefore amounted to 3.1% in 2022. From the sectoral perspective, the yearly growth was particularly strong in the country's service sector (+4.2%), but was negative in Belgium's industrial and construction sectors (of -0.3% and -0.1%, respectively). Furthermore, the labour market has shown strong resilience with continuing job growth,

stemming from a strong economic rebound in the first half of 2022 and the demographic impact vigorously accelerating in recent quarters.

2022 stood out with a well-organized management of the Ukrainian crisis from a financial (e.g. credit risk analysis on clients' vulnerability to energy price increase) as well as a non-financial risk management. The management of concentration risk was also high on the 2022 agenda, in particular, the measures taken considering the rising indebtedness of the Belgian regions and the increased and monitored exposure on commercial real estate. Early 2022 was marked by low Cost of Risk (CoR) and an overall reduction of provisioning levels due to a partial release of the Covid buffers during a strong economic recovery. Since the start of the war, the impact on credit quality was limited. Nevertheless, the uncertainty about future evolutions has led to the increase of stage 1 and 2 provisions, contributing to the 2022 Cost of Risk of EUR -106 million. Risk management considers the level of overlay for economic uncertainties of EUR 235 million (composed of EUR 124 million for macroeconomic factors and EUR 111 million for vulnerable exposures) at the end of 2022 as a solid buffer taking into account its current portfolio and environment.

The rebound of the interest rates in the second half of 2022 has been adequately anticipated by Risk Management and Finance together with the businesses, that defined a clear vision and interest rate strategy for the non-maturing deposits, adjusted its Risk Appetite Framework and its hedging policy resulting in overall positive contribution on the income side, partly compensating the negative impact of inflation on the costs. Higher interest rates were also passed through to deposit rates. Belfius was the first major bank in Belgium in 2022 to increase its rates on customers' saving accounts.

For Belfius Insurance, the rising interest rates have overall a positive impact through investment and pension life insurance. The ability of Belfius Insurance to change and adapt life and non-life pricing to this new changing and evolving environment greatly contributed to the improvement of the resilience of Belfius Group. Solvency II ratio was put under pressure due to inflation but remained well above our risk appetite along the year.





While the conflict between Russia and Ukraine is still ongoing with potential of further escalation, the overall outlook at the onset of 2023 is rather positive, with headline inflation stabilising, energy prices off their peaks, and economic growth holding up. According to the forecasts, the economy remains resilient, and economic growth will pick up again in 2023 as headline inflation moderates. Risk Management expects, however, the core inflation to be persistent in 2023, as a result of second round effects. All in all, NBB is expecting the annual GDP growth to fall temporarily to 0.6% in 2023, further rebounding to 1.7% in 2024 and to 1.8% in 2025.

It is clear that the cautiously positive outlook for 2023 is subject to many continuing risks and uncertainties. Majority of the obstacles continue to persist, with core inflation expected to remain higher than 2% in 2023. In the medium term, in the absence of necessary reforms (e.g. in labour market), sound(er) energy policy and better (geo)political predictability, the competitiveness of more Belgian enterprises could be hurt, jeopardizing medium term (potential) economic growth in Belgium and impacting households further. On top of that, the higher (longer) interest rates could exacerbate the concerns regarding the elevated Belgian fiscal deficit and public debt.

Any additional adverse geopolitical development or macroeconomic shock could jeopardize the GDP recovery trajectory and push Belgian economy into recession. Belfius therefore remains vigilant to any signs of further deterioration in economic situation and changes in the macroeconomic conditions (including sudden changes of the yield curve) and pays particular attention to potentially vulnerable in the current situation individual, business and corporate clients, proactively facilitating solutions for them.

## Belfius proves highly resilient in 2022 in a highly uncertain environment

In this challenging context, the Belfius' commercial, financial and risk profiles have continued to improve and have shown significant resilience to external shocks. This resilience reflects as well, for few years in a row now, the development and enhancement of the overall risk management framework for financial and non-financial risks, our capacity to anticipate some important developments in the environment (e.g. rise of interest rates) and to address tail risks (sound management of crisis from a non-financial risk point of view, hedging strategy, provisioning and capital buffers, reduction of concentration on

ex-legacy...), combined with a strong (commercial) diversification strategy. Indeed, the capacity of Belfius to absorb shocks has been strong, as highlighted by the evolution of the external (EBA) and internal stress tests over the years as well as Belfius' rating evolution. This resilience is the reflect of a sound risk culture within Belfius Group across all business lines held by all staff levels and a sound risk framework. The very high engagement and loyalty of Belfius' employees, also, greatly contribute to this sound resilience, in light of the high ambitions set by the group in its clear strategy.

The strong focus on risk management and on the preservation of financial soundness are not detrimental to commercial growth, and continuous support is brought to the Belgian economy in line with the Belfius strategy 20-25. In 2022 again, Belfius had strong loan growth rates in all segments and continued supporting its customers, among others those severely affected by the higher energy prices.

Furthermore, only seven months after the unprecedented flooding of July 2021, Belgium was hit by the February storms. Additional measures were taken to increase resources and gain control over the high volumes of claims to manage. Once more, the reinsurance program of Belfius Insurance demonstrated its value as a key component of the risk management framework in place. Natural disaster scenarios have been developed in anticipation of future events, setting up clear governance processes and a coordinated, focused on the customer approach.

Market risks remain the major risk drivers for Belins. Throughout 2022, following a strict monitoring process, adequate measures were taken (roll-over of spread lock, equities sales, alleviation of leverage loans exposure, re-balancing of asset duration per bucket, ...) in order to control the risk exposure and respect the Belfius Insurance RAF.

## Risk appetite framework

In 2022, Belfius has been able to maintain a very high compliance degree with the Risk appetite framework (RAF) limits defined by the Board of directors with no material increase of risks induced by the difficult and uncertain environment. Remediation plans have allowed to quickly resume the few breaches that occurred.

All in all, the sound risk profile of our institution is demonstrated by the fact that the main metrics of our RAF ended up in their green zone in the fields of Solvency, Liquidity, Interest Rate, Profitability, Credit and Market risks. Risk Management was focused on a close monitoring and follow-up of the non-financial risks' indicators in 2022, in light of the rising cyber-attacks, internal and external frauds as well as outsourcing risks.



The 2022 yearly RAF review, which included a risk scope extension (e.g. ESG Risks, Outsourcing risks, more granular credit risk limits ...) as well as the roll-out of the framework to the main subsidiaries, allowed for increased consistency throughout the group and a closer monitoring of the risk profile by the Group Financial Conglomerate Review Committee. This yearly review did not lead to any increase of risk appetite. On the opposite, to remain on the prudent side, some metrics' limits have not been re-assessed in light of the foreseen increase of profitability in our financial plan to account for the important ongoing uncertainties, for which a half year review is foreseen to take place in 2023 (ex: Earning At Risk indicators).

## Solvency and liquidity

Belfius CET 1 ratio was at 16,55% as of end 2022, an increase of +17 bps compared to the end of 2021. This CET 1 ratio represents a continued strong and solid level, allowing Belfius to continue to support its strong strategical commercial franchise development.

Thanks to the increasing profit capacity (+150bp impact on CET 1 ratio) and positive regulatory impact (+44bp on CET 1 ratio) stemming from the removal of the NBB macroprudential add-on on Belgian residential mortgages (replaced by a systemic buffer in capital), partially offset by the impact of internal model updates, Belfius has been able to cope with the strong commercial balance sheet growth (impacting the CET 1 ratio with -111bp) and foreseeable dividend pay-out ratio (-59bp on the CET 1 ratio).

The solid capital base still compares very favourably with Belfius' minimum 2022 applicable CET 1 capital ratio SREP requirement of 10.05% and internally defined operational target (>13.5%). The capital buffer vs SREP requirement is close to EUR 4.2 billion.

At year-end 2022, Belfius capacity in subordinated MREL and total MREL was already exceeding the Single Resolution Board final targets to comply with on January 1st, 2024. Expressed in Total Risk Exposure Amount (TREA), Belfius MREL of EUR 18.4 billion represents 28.4% to be compared with a 2024 final binding target of 27.58% (including a CBR of 4.35%). In the same way, Belfius MREL subordination of EUR 15.1 billion represents 23.2% of TREA to be compared with a binding target of 20.18% (including a CBR of 4.35%). Expressed in Leverage Ratio Exposure (LRE), Belfius MREL subordination of 8.4% exceeds the 6.87% requirement.

Furthermore, Belfius is actively preparing for upcoming regulatory developments from Basel III finalisation and the EU Banking reform. Based on the CRR3 legislative proposal released by the Council on Oct 31st 2022, Belfius expects a limited impact on its solvency ratio under the static balance sheet assumption.

Looking forward, taking into account the expected evolution in Belfius' overall regulatory approaches and anticipated management mitigation actions, and considering an overall growing balance sheet from further development of our commercial franchise, the impact of CRR 3 at first time application (2025) on CET 1 ratio is currently estimated to be slightly positive. Note also that under these assumptions, the output floor should not have an impact in the first years of Basel III finalization implementation. Customary disclaimers to forward-looking aspects thereof and ever-changing market and regulatory environment continue to apply.

Belfius Insurance has been able to maintain a strong Solvency profile as well in this uncertain year. As of the end of 2022, the consolidated Solvency II (SII) ratio ends up with a strong 193% after the foreseen dividend (with 60% pay-out ratio). This remains well within Belfius Insurance's risk appetite (>160%). Since the end of the year 2021, the effect of inflation was quarterly assessed and reviewed in the SII calculations pushing down the solvency ratio. The new pricing strategy of Branch 21 investment (renewal of the guarantee rate and the profit sharing at higher level more aligned with the rate environment) has been implemented in the Q4 calculations.

Another key element for Belfius Insurance is the entry into force of IFRS 17. It will likely not affect the solvency position of Belfius Insurance, but special attention is now paid to Belfius Insurance's earnings and Other Comprehensive Income future volatility impacting Belfius CET 1 via the so-called Danish Compromise. Risk Management continues to monitor these volatilities and keep enhancing its risk framework to better anticipate them in our planning/stress testing processes.

In an abundant ECB funding environment and a strong wholesale market, Belfius still shows very solid key liquidity metrics with a Liquidity Coverage Ratio of 173% (2021: 195%) and a Net Stable Funding Ratio of 135% (2019: 136%), both well above the minimum requirement of 100%.

At the end of 2022, Belfius Bank had available liquidity reserves of EUR 46.2 billion, of which EUR 34 billion HQLA (High Quality Liquid Assets according to LCR regulation). These available liquidity reserves consisted of EUR 27.0 billion in cash overnight deposited at NBB/ECB, EUR 8.7 billion in CCP-eligible (Central Counterparty-eligible), EUR 2.1 billion in other liquid bonds (of which EUR 1.3 billion are ECB eligible) and EUR 8.4 billion in bank loans (ECB eligible). The ratio HQLA/Total Non Maturing Commercial deposits stood at 33% at the end of 2022, and cash overnight deposited at NBB/ECB represents approximately 79% of the HQLA buffer.





In the first three months of 2023, the available liquidity reserves have increased to EUR 50 billion, of which EUR 39 billion HQLA, corresponding to the LCR of 139%. This increase took place following larger cash overnight deposited at NBB/ECB (EUR 37 billion).

In 2022, Belfius has continued diversifying funding sources and investor base. Belfius has successfully issued a EUR 500 million five-year Belgian Mortgage Pandbrieven benchmark in October 2022, followed by a EUR 500 million Tier 2 Benchmark in the early January 2023. Given the T-LTRO III repayment of EUR 9.7 billion in 2022 out of the total funding under T-LTRO of EUR 15.7 billion, more short-term wholesale funding has been attracted than in the previous years, 3.8 billion as of the end 2022 (compared to EUR 0.9 billion in 2021), mainly in CP/CD with a horizon of less than 1 year.

The total Return On Normative Regulatory Equity was equal to 11.2% vs 11.0% end 2021<sup>(1)</sup> at the end of 2022.

These strong solvency and liquidity positions, largely respecting all regulatory minima, proactively support the commercial development of Belfius and the group's ability to cope with economic or geopolitical uncertainties, while continuing to play an active and positive role for the Belgian society in its future developments (including climate related projects) and absorbing more stringent regulatory requirements (e.g. Basel III finalization, IFRS 17 accounting standards for Belins).

## Asset quality

2022 has been another challenging year from macroeconomic and geopolitical perspectives. While in the first half of the year the economy was still recovering from the Covid-19 sanitary crisis, the impact of the war between Russia and Ukraine, the very high energy prices and surging inflation put the economic activity nearly to a halt in the last quarter of 2022.

Early 2022 was marked by low Cost of Risk (CoR) and an overall reduction of provisioning levels due to a partial release of Covid buffers boosted by the observed economic recovery, suddenly halted by the Russian invasion of Ukraine. This fundamental change in the economic environment triggered Belfius to adopt a more prudent CoR approach in the

second half of 2022. Overall this resulted in a CoR impact (at consolidated level) of EUR -106 million in 2022, driven to a large extent by:

- Increase of stage 1 and 2 provisions resulting from the impact of macroeconomic factors, considering the negative 2023 perspectives and an increase of the weight of negative macroeconomic scenarios: - EUR 68 million for 2022;
- A reassessment of the vulnerable sectors following top-down and bottom-up analyses contributing to an overall reduction of EUR +49 million for 2022;
- Stage 3 (default) provisions remaining low with an impact of EUR - 60 million for 2022 (compared to EUR -77 million in 2021).

In this challenging context, the Belfius' risk profile has continued to improve and has shown significant resilience to external shocks. Sound asset quality ratio of 1.82% in 2022 was maintained (vs 1.95% in 2021) as well as the high coverage ratio of non-performing loans (60%).

Portfolio analyses enriched by client vulnerability checks, based on transactions' data analytics, were performed throughout the year for enterprises and individuals to pinpoint vulnerable pockets of risks with regard to the rise in energy prices and inflation in remarkably changing environment. At this moment, this environment does not lead to major bankruptcies or payment arrears, nor to the marked signs of material credit risk deterioration. However, the remaining high macroeconomic uncertainties, the rising interest rates and more fragile financial structure of some sectors and enterprises, especially when exposed to higher raw material prices and salaries, remain areas of attention and are subject to continuous granular monitoring.

The total overlay for economic uncertainties of EUR 235 million at the end of 2022 (vs EUR 216 million in 2021) composed of EUR 124 million for macroeconomic factors and EUR 111 million for vulnerable exposures allows Belfius to absorb potential defaults in the coming quarters.

As in previous years, Belfius continues to monitor potential de-risking opportunities in its run-off portfolios and large exposure concentrations. In 2022, specific actions have been conducted to further reduce the ex-Legacy positions in the trading book as well as in the banking book. This allowed to accelerate the naturally amortizing exposures to non-core business as well as to reduce the remaining P&L sensitivities.

(1) New RoNRE calculation method as of 2022, pro forma applied for 2021 figures. Return on average normative regulatory equity based on last 4 quarters net income divided by last 5 quarters rolling average RWA\*13.5%).



## Non-financial risks

Belfius has again, like in the previous years, demonstrated its high operational resilience in the challenging context of 2022 (notably, further increase in cyber and fraud risks), with no major incidents. Building up on the initiatives taken in 2021 in order to strengthen the management of non-financial risks, further improvements in the overall NFR risk framework have been implemented in 2022 by developing new frameworks and enhancing existing ones like the Permanent control framework, the new Project Risk Management framework, the Information Security Management System (ISMS) and the Third Party Risk Management framework.

Non-financial risk management will remain a key attention point in the next years with strict monitoring required in the ongoing group transformation and growing phase and permanent vigilance required in a tough external environment. Further strengthening of the non-financial risk management is planned for external fraud, IT security as well as the monitoring of the acceleration of retirements at Belfius Group.

## Compliance

Compliance risks remain among Belfius' top priorities in order to manage the increasing number of files often linked with more intrinsic complexity, to deal with evolving regulatory requirements and with ambitious internal targets set to ensure compliance risks remain within our low-risk appetite.

In 2022, major updates have been made to the control framework regarding special mechanisms. In the Anti Money Laundering (AML) domain, a new AML based transaction monitoring system has been implemented based on the latest Artificial Intelligence technology. International transactions falling under the sanctions and embargo's screening have been optimised this year to cope with increasing workload induced by the Russian invasion of Ukraine. Regarding the Know Your Customer (KYC) processes, the PEP (Politically Exposed Persons) detection process has been optimised and a risk-based approach for identification of UBOs has been implemented. In the MiFID domain, ESG preferences are being implemented gradually. Finally, the market abuse detection framework has been challenged leading to the choice of a new automated detection tool that will be implemented in 2023.

## Environment, social and governance

Environmental and climate-related issues are one of the greatest challenges the world is facing and there is no doubt it will have a significant and lasting impact on the economic growth and prosperity. Considering the salient impacts of environmental and climate-related risks and opportunities, Belfius chooses to be the leading actor in the transition to a low carbon and resilient Belgian economy and society and to engage more deeply than ever with its customers about these issues.

Accordingly, ESG risks have been identified by Belfius as one of the top risks for few years now and are being gradually embedded in its risk management framework. ESG related themes have also been integrated into the governance layers of Belfius and the management of environmental and climate-related risks and opportunities is being progressively encapsulated across all layers of the organization along the three lines of defence.

All 3 components of sustainability (i.e. Environmental, Social and Governance) are at the core of Belfius' mission and vision (i.e. being meaningful and inspiring for Belgian society). Belfius overarching goal in this field is threefold: it is about adequately managing ESG risks in order to ensure that Belfius remains resilient and stays profitable while also limiting its potential negative impact on the world and maximizing its positive value creation and contribution to society. Belfius is thus increasing the finance flow towards the green economy, putting in place policies and procedures that aim at reducing negative impacts and risks on/from the environmental and climate-related factors and taking commitments and engaging in collaborations aligned with its environmental and climate objectives.

For a sound implementation of its business strategy, Belfius looks into risks and opportunities, including environmental and climate-related ones, that have already or will become material in the future from both a financial materiality perspective and an impact materiality perspective. Therefore, Belfius Bank identified climate-related risks that are considered substantial in the short, medium and long term through a high-level materiality analysis, based on a mix of expert judgment and literature findings, performed in 2021 and updated 2022.

At this stage (pending a more granular and/or quantitative assessment), it seems that the most relevant risk drivers in the short term are linked to policy and regulation changes and additional legal, reporting and compliance requirements. In the medium term, other risk drivers such as mandatory alignments with certain transition pathways, technological shifts, changes in market preferences, increase of the energy and raw material prices and additional legal, reporting and compliance requirements are expected to gain importance.



The impact of physical risks should not be downplayed either, as we have seen in 2021 in Belgium their potential impact, and even more so in the coming years in the absence of the policies to mitigate global warming.

Since 2020, Belfius has started developing a general sustainability framework that sets the foundation for a better framing and management of ESG risks. In 2021, Belfius moved forward with the design of an ambitious ESG action plan aimed at aligning practices and plans with the expectations set by the European Central Bank (ECB) in its “Guide on climate-related and environmental risks” published in 2020 (the so-called “ECB ESG action plan”).

2022 saw Belfius setup both an ESG Key Risk Indicators Dashboard and develop an ESG scoring methodology for corporates, as well as a climate risk assessment tool for mortgage loans. The aforementioned portfolio screenings were updated and extended and progress was made in the definition of additional environmental and climate related key risk indicators (mainly relating to our financing activities this time around) in the Quarterly Risk Report (QRR) and Risk Appetite Framework (RAF). Our participation to supervisory exercises (ECB climate stress test and ECB thematic review) should also be noted and offered us insights that were leveraged in internal projects such as Belfius' first internal climate stress test.

A further acceleration is expected in 2023, namely triggered by the feedback from the thematic review performed by the ECB: European banks have been invited to submit updated ESG action plans and ensure full alignment with ECB's supervisory expectations by the end of 2024 at the latest.

The outcome of the various ESG risk identification, assessment, quantification, management and monitoring exercises will help Belfius prioritizing actions and feed its business and sustainability strategy. This includes decisions regarding how to ensure a sustainable growth, the identification of the most valuable products and service offerings, the possible influence on pricing, the adaptation and mitigation activities that should be pursued, amongst others.

Belfius is convinced that, in the context of significant expected macro- and microeconomic changes stemming from the transition to low carbon, climate-resilient and environmentally sustainable economy, its climate-aware business strategy and risk management framework combined with its robust balance sheet structure and reinsurance program will ensure its resilience first and foremost but also growth opportunities. This conviction is underpinned by the results of the supervisory and internal climate stress tests that

confirm environmental and climate-related risks do not pose a significant threat to Belfius' profitability, capital position and liquidity buffers for the time being in the given scenarios.

## Risk management organisation, governance, tools and processes

In the context of a growth and diversification strategy, evolving and challenging economic and social environment and stringent regulatory framework, the Risk management function needs to be continuously upgraded to remain future proof. In this context, a re-organization of the CRO department took place in mid-2022 with the creation of the modelling department merging the quantitative profiles working on Basel Pillar 1 credit risk models with the ones working on the Pillar 2 perimeter to gain in efficiency and to better share their expertise.

Regarding tools and processes, Belfius continues to work on different initiatives to further improve the quality and real timeliness of data and increase efficiency of the risk processes. This entails tools (re)-design, simplification and automation. Some of these projects are risk specific but as much as possible and when appropriate, they are inserted into more global and centrally managed projects like the Corporate data platform and the Core Banking Renewal program.

A full strategy was crystalized in 2022 to simplify the Pillar 1 credit model landscape. This exercise led to the proposition of a standardized approach for some models. Aside, the EBA repair program to ensure regulatory compliance for the credit models remains on track, it is considered as broadly adequate by the regulator with very limited RWA add-on.

Risk management is also optimizing the use of data and artificial intelligence and machine learning technologies in the portfolio monitoring and Early Warning Signals tools, with the purpose of capitalizing on experience gained in anti-money laundering to extend the use of these technologies to other compliance and risk topics/departments.

Governance around these new models and technologies is also being reinforced. The scope of the Model validation team is being extended to additional models and modelling techniques and the model management framework is adjusted accordingly.

Greater attention is also put on a central repository of all regulatory reporting and associated automation processes in order to cope with the increasing regulatory requirements.



All these projects aim at putting Belfius in a position to face ever more complex and rapidly evolving risks with strong, comprehensive but also agile risk management processes and practices.

## Belfius' strong risk profile is confirmed by external sources

Belfius' strong risk profile is reflected in the supervisory review and evaluation process, the results of the ICAAP and internal stress testing, and the rating agencies views on the Belfius' credit risk profile. Furthermore, the bank performed well in the ECB 2022 climate risk stress test.

### Supervisory review and evaluation process

In 2021, the ECB has returned to its regular Supervisory Review and Evaluation Process (SREP), therefore stepping away from the pragmatic approach of 2020 adopted in response to the coronavirus (COVID-19) crisis, where Pillar 2 requirements and guidance have been kept unchanged at 2019 levels. On the 4th of February 2022, Belfius has been notified by the ECB decision on the 2021 SREP.

The new Pillar 2 Requirement (P2R) entered into force from March 1st, 2022 and was set at 2.13%, where 13 bps represented a prudential add-on for non-performing exposures relating to the automatic application of the prudential backstop by the ECB on NPE stock as of March 31, 2018. In the outcome of SREP 2022 process, it was determined to slightly increase that requirement to 2.14% from March 2023. Without taking into account the prudential add-on for NPE stock, the P2R remained largely the same.

With this score, Belfius remains below the average of European bank-specific capital requirements of 2.3% (in 2021 SREP). The CET 1 ratio (16.55%) is still largely in excess of the SREP CET 1 requirement (10.05%) for 2022, which includes the newly introduced (in May 2022) by the NBB sectoral systemic risk buffer for Belgian residential real estate exposures of 0.30%. Belfius, therefore, continues to confirm its solid capital and liquidity positions in SREP exercises, going beyond the levels required.

## Stress testing in 2022

The strong resilience of the Belfius business model was also evidenced by the internal stress testing program conducted on its Financial Plan 2022-2026. In 2022, the Bank has developed a set of alternative and severe macroeconomic scenarios designed to anticipate different possible macroeconomic evolution for the next 5 years taking into account the specific context of the war in Ukraine (a.o. stagflation, higher interest rates resulting in inverted yield curve, crash of the stock markets, rising credit spreads and uncertainty and higher IR environment affecting customer behaviour..), and to simulate how Belfius might be affected under these circumstances. Moreover, three power outage scenario's (triggering liquidity outflows) have been developed by the Non-Financial Risk team in order to account for the new threats to business continuity.

Overall, Belfius showed good resilience to financial and liquidity stress under these stress test scenario's (and their combination, such as stagflation scenario occurring together with power outage), decrease of the loans production limiting capital charge increase and solvency impact for Belfius. These stress test results have been submitted to the Management Board as well as to the Board of Directors of Belfius. Mitigating actions and recommendations have been proposed based on their results.

No EBA EU-wide stress test took place in 2022 (as they're conducted every two years, the current one successfully launched on January 31, 2023), however the ECB has carried out a climate risk stress test of significant institutions. This first Climate Stress Test exercise had the objectives of:

- assessing the banks' climate risk stress testing capabilities and data availability;
- stock-take and benchmark the sensitivity of banks' income to transition risk and their exposure to carbon intensive industries;
- run bottom up projections in order to evaluate the Banks' vulnerabilities to climate related and environmental events.

The results of the ECB climate stress test to assess sector's climate risk preparedness, to gather best practices for dealing with climate related risks and assess vulnerabilities of the sector Belfius' results were positive, placing Belfius within the best 40 banks.



## Rating agencies

The rating agencies view positively the group's credit quality as reflected by the rating actions taken during 2022.

The rating agencies took the following decisions:

- on 13 July 2022, Moody's confirmed Belfius Bank's long-term rating at A1 with Stable outlook;
- on 27 July 2022, Fitch affirmed Belfius Bank's long-term rating at A- with Stable outlook;
- on 29 July 2022, S&P published a new Full Analysis report on Belfius, confirming its long-term A rating with stable outlook;
- on 12 December 2022, Moody's confirmed Belfius Bank's long-term rating at A1 with Stable outlook.

On 1 March 2023, S&P affirmed the A- long term issuer credit rating to Belfius Insurance, with Stable outlook.

## Belfius is ready for the next challenges

### Next steps for risk management in 2023

Some work areas remain and will be further developed in 2023, such as:

- IT resilience (including DRP, capacity to react to cyber-attacks, operational continuity);
- our capacity to timely adjust our control system to existing (or new) regulations when changing our risk profile and in anticipation to supervisory expectations;
- our capacity to oversee and enhance E2E processes and include more automatic internal controls in a fast changing (and digital) environment, where some more operational knowledge might disappear;
- our non-stop preparation for unthinkable events (cyber, public debt and political instability, climate risks, major data leak, energy blackout, ex-legacy...); and
- the maintenance of Belfius' culture, sound governance and agility in a fast changing team with an impressive amount of new hires.

Our capacity to meet these objectives will greatly contribute to our overall resilience, next to our ability to further develop a sound forward-looking assessment of financial and non-financial factors.

**Marianne Collin**  
CRO Belfius Bank



### Subsequent events in Q1 2023

Belfius is closely monitoring the potential risks related to the failures of 3 US regional banks early March 2023 (Silicon Valley Bank, Silvergate Capital Corporation and Signature Bank), and to the general market uncertainties related to Credit Suisse and the merger agreement with UBS entered into on 19 March 2023 following the intervention of the Swiss Federal Department of Finance, the Swiss National Bank and the Swiss Financial Market Supervisory Authority FINMA.

As of the end of 2022 and at the date of this report, Belfius has no direct exposure to the 3 abovementioned US banks.

As of the end of 2022 and at the date of this report, Belfius has a very limited direct exposure to Credit Suisse amounting to a nominal amount of EUR 27.8 million, under the format of a trade finance guarantee for EUR 2.8 million and a senior bond issued by Credit Suisse AG for EUR 25 million. Furthermore, Belfius has collateralized derivatives with Credit Suisse for a fair value of EUR -54mio (fair value as of 17 March 2023). Such negative fair value represents a debt owed by Belfius to Credit Suisse, on which Belfius posts cash collateral for that amount.

Within Belfius Group very close monitoring of these market circumstances is put in place, for instance to assess actions to take if contagion would accelerate. It is to note that Belfius can rely on its strong solvency and liquidity position as further detailed on pages 34-42 and 76-81 of this report.

## Declaration approved by the management body on the adequacy of risk management arrangements

Belfius Bank is a Belgian banking and insurance group fully owned by the Belgian Federal State through the Federal Holding and Investment Company (FHIC). Belfius Bank shares are not listed.

Belfius Bank is a locally anchored autonomous banking and insurance group serving individuals, professionals, companies, social profit institutions and public authorities in Belgium.

With a balance sheet mainly oriented towards Belgian businesses and customers in different segments, Belfius is committed to deliver value-added products and services through a modern proximity model. It aims at maintaining a healthy financial profile, reflected in a prudent investment strategy and a carefully managed risk profile, resulting into sound liquidity and solvency positions.

The Board of Directors of Belfius has defined a clear and straightforward business model focused on the long term. A clear Risk Appetite has been defined and approved by the Board of Directors, expressing the level of risk that Belfius is prepared to take – for the various types of risk (credit risk, market risk, liquidity risk, non-financial risk...) – taking into account the expectations of the main stakeholders (shareholders, creditors, regulators, rating agencies, customers and so on), in order to achieve the strategic and financial objectives.

The Risk Appetite is a key component in the planning process with a clear articulation between the group's capacities, the strategy and the Risk appetite framework (RAF). The three components are determined in parallel in an iterative process as they are linked and influence each other. The RAF is there to support strategy definition and planning, to





support analysis of value creation - integrating the risk dimension, and to help making day to day decisions on investments and financing. This leads to business plan adjustments as necessary to ensure the global risk profile derived from the financial plan is consistent with the Belfius' Risk Appetite.

This dynamic exercise is steered by Finance and Risk in collaboration with the Business Lines.

The Management Board has the responsibility to implement the decided risk appetite into the daily transactions. The process is supported by a detailed limit framework, a committee structure and a cascade of information/decision briefings to risk management stakeholders, promoting an environment of open and constructive engagement.

Through this process, risk attention points and recommendations are communicated, understood, embraced and monitored throughout the bank. The mechanism ensures that risk appetite, risk management strategy, and business strategy are effectively aligned and embedded in decision-making and operations at appropriate levels.

All risks are managed in accordance with the Group framework for risk management. Each risk type is covered in the Risk Appetite, which is then further declined in operational limits on all risk types. The compliance with the risk appetite framework is monitored and reported quarterly to the Management Board and to the Board of Directors. If a RAF indicator is exceeded, the Management Board and the Board of Directors are notified and provided with an analysis of the reasons for the breaches and, if required an action plan to ensure the return to the RAF risk level.

The key ratios and figures of Belfius Bank are integrated in the "Summary of risk profile" of this Risk Report, as well as the main risks encountered in 2022. The way risks (credit market, liquidity, non-financial, ESG risk, other financial risks) are managed is further explained in each risk section of this risk report. In general, the Belfius risk management framework is based on the 3 Lines of Defence (3 LoD's) model with a set of adequate and effective guidelines, policies and internal controls.

Belfius Bank has consolidated risk data and systems supporting regulatory reporting and disclosures as well as regular or ad-hoc internal Risk management reporting. The various internal management reports are presented to the appropriate committees as indicated in the risk governance structure as well as in the table of section II.4.2.

Intra-Group Transactions (IGT) at Belfius Group are surrounded by a sound framework. Their monitoring is executed based on approved Belfius Bank & Belfius Insurance thresholds. It is to be noted that, in recent years, no significant intragroup transactions that could be qualified as "prudential arbitrage" were recorded within the Belfius group.

In accordance with Article 435 of CRR, the Management Board is of the opinion that the risk management system is adequate regarding Belfius' risk profile and strategy. The Management Board considers that this Risk report demonstrates the assurance of the adequacy of the risk management framework.

This declaration is also approved by Belfius Bank's Board of Directors of 21 March 2023.



# I. Regulatory framework and Pillar 3 disclosure

## I.1. Regulatory framework

The capital adequacy regulations consist of three pillars.

- The first pillar – minimum capital requirements – defines the way banking institutions calculate their regulatory capital requirements in order to cover credit risk (including counterparty credit risk), market risk, operational risk and credit valuation adjustment (CVA).

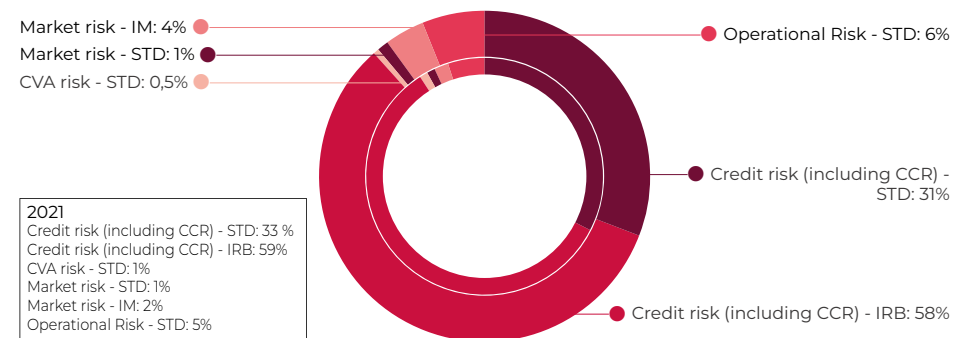
The framework provides different approaches for calculating credit risk (3 approaches: Standardised, Foundation Internal Rating-Based and Advanced Internal Rating-Based), market risk (2 approaches: Standardised Approach and Internal Model Approach), operational risk (3 approaches: Basic Indicator Approach, Standardised Approach and Advanced Measurement Approach) and CVA (2 approaches: Standardized Approach and Internal Model Approach). The Pillar 1 also encompasses the leverage requirement which is a non-risk-based ratio serving as backstop to the risk-based minimum capital requirements.

- The second pillar – supervisory review – provides the European regulators acting under the Single Supervisory Mechanism (SSM) with a framework to help them in assessing the adequacy of banks' capital to be used to cover either risks identified in the first pillar but not sufficiently covered by the Pillar 1, and other risks such as among others concentration or interest rate risks.
- The third pillar – market discipline – develops a set of qualitative and quantitative disclosures allowing market participants to make a better assessment of capital, risk exposure, risk assessment processes, and hence the capital adequacy of the institution. The requirements of the third pillar are met by this publication.

### I.1.1. Pillar 1 implementation

Belfius uses different approaches for the determination of its minimum regulatory capital requirements under Pillar 1:

#### Reporting methods used (Outside 2022 – Inside 2021)



2021  
 Credit risk (including CCR) - STD: 33 %  
 Credit risk (including CCR) - IRB: 59%  
 CVA risk - STD: 1%  
 Market risk - STD: 1%  
 Market risk - IM: 2%  
 Operational Risk - STD: 5%



#### I.1.1.1. Credit Risk

Since 1 January 2008, Belfius has been authorised to use the Advanced Internal Rating-Based Approach (AIRB Approach) for the determination of its minimum regulatory capital requirements (see as well IV.2.2.1).

Belfius has also decided to maintain a Standardised Approach for some portfolios for which this approach is specifically authorised by the Basel framework, such as small business units, non-material portfolios, portfolios corresponding to activities in run-off, to be sold or portfolios and entities for which Belfius has adopted a phased roll-out of the AIRB Approach.

In total, credit risks (including CCR) capital requirements represented 89% of total risk exposure amount at the end of 2022.

#### I.1.1.2. Counterparty Credit Risk and CVA risk

Belfius calculates its exposures based on the standardised method for counterparty credit risk (SA-CCR). Capital requirements are calculated according to the same principles as for credit risk.

The additional charge to cover the risk of Mark-to-Market losses due to a deterioration in the creditworthiness of the counterparties, the CVA risk, is calculated according to the Standardised Method, and represented 0.5% of total risk exposure amount as of end of 2022.

#### I.1.1.3. Market Risk

Since June 25, 2013, Belfius has been authorized to use its historical VaR model for the determination of its regulatory capital requirements. This Internal Model Approach is currently granted for general interest rate risk and foreign exchange risk. Belfius applies the Standardised Approach for specific interest rate risk, equity risk and commodity risk (see as well V.3.6.).

In total, market risks requirements accounted for 5% of total risk exposure amount at year-end 2022.

#### I.1.1.4. Operational Risk

For operational risk, Belfius Bank applies the Standardised Approach, which accounts for 6% of total risk exposure amount.

### I.1.2. Pillar 2 implementation

The Internal Capital Adequacy Assessment Process (ICAAP), applicable since the end of 2008, requires banks to demonstrate to the supervisors the adequacy of their risk profile and of their capital by providing an overview of the internal consolidated Belfius Bank process for assessing Capital Adequacy in relation with risk profile and organisation.

In this context, appropriate governance has been put in place for the calculation and management of the risks and for the assessment of the economic capital needs from a Risk Appetite perspective (see section III.4.3.1.). The Capital Adequacy Statement (CAS) formalizes all the ICAAP constituting elements of Belfius' assessment process with regards to its internal capital adequacy. It provides the official and comprehensive view of Management body on the ongoing assessment of the risks Belfius faces in a holistic and forward-looking manner, along with the level of capital needed, both now and in the future, having considered all necessary management actions. The CAS, endorsed and signed by the management body, has been communicated to the supervisors.

Next to the ICAAP, an ILAAP (Internal Liquidity Adequacy Assessment Process) describing how Belfius Bank monitors and assesses the adequacy of its liquidity and funding risk management is designed. Similarly, a Liquidity Adequacy Statement (LAS), endorsed and signed by the management body, demonstrating that Belfius Bank has an adequate management and monitoring of its liquidity and funding positions and risks, has also been communicated to the supervisors. A detailed description of the Belfius liquidity and funding risk management framework can be found in the chapter Risk management of the Belfius' Management Report (see section on liquidity risk).



The SSM imposes as well additional requirements above the first pillar. For 2022, The P2R and the P2G were respectively set at 2,13% and 0.75% (see section III.1. for more detail).



## I.1.3. Pillar 3 – Disclosure policy & disclosure map

### I.1.3.1. Pillar 3

The current report contains information about risk management, risk measurement and capital adequacy in accordance with the Capital Requirement Regulation (CRR) and the Capital Requirement Directive (CRD) of the European Union.

The current report contains information on all subjects included in the directives and implementing regulations, insofar as they apply to Belfius Bank SA:

- Part eight of CRR;
- Consolidated Pillar 3 disclosure implementing regulation (EU 2021/637);
- Implementing regulation on disclosure of MREL (EU 2021/763);
- Implementing regulation on disclosure of ESG risks (EU 2022/2451);
- EBA guideline on disclosures of exposures subject to measures applied in response to the Covid-19 crisis (EBA/GL/2020/07);
- EBA guideline on IFRS 9 transitional arrangements (EBA/GL/2020/12).

The pillar 3 disclosures under the CRD /CRR framework only deal with parent companies, subsidiaries and associated companies in the financial sector, and exclude insurance companies. This means that disclosures requirements for Belfius Insurance are generally not included in this report. Belfius Insurance prepares its own Solvency Report (SFCR report), which will be published on 21 May 2023.

However, in order to give a representative view of Belfius Group's risk profile, Belfius Insurance figures have been included in some sections, when relevant. In this case, the reporting scope is always clearly indicated.

The information provided in this report has not been subject to an external audit, but the quality of information is guaranteed by a strong process of validation within the Belfius Bank SA Management Board.

The Risk report 2022 and its templates have been signed off by Belfius' Chief Risk Officer. The report was also presented to the Risk Committee and Audit Committee (in joint session) on 17 March 2023 and to the Board of Directors on 21 March 2023.

All aspects for which disclosure is required under part eight of CRR but that are not applicable to Belfius are listed in Appendix XI

No exceptions have been applied for the publication of information considered proprietary or confidential.

The Risk report is presented in euros (EUR), which is Belfius' accounting currency, rounded to the nearest million (unless otherwise stated). Due to rounding, numbers presented throughout this document may not add up precisely to the totals we provide, and percentages may not precisely reflect the absolute figures.

The Risk report is released on an annual basis. The next report's update is scheduled for April 2024. However, quantitative information will be released on a semi-annual basis in accordance with article 433 and article 433a of CRR.

This Risk report and the Risk report annex are available in the investors section of the Belfius website ([www.belfius.be](http://www.belfius.be)), under "Results and Reports".





### I.1.3.2. Pillar 3 disclosure map

If information is already available in the Management report of Belfius or Belfius Insurance and if Belfius believes it is equivalent in nature and scope to the disclosure requirements, the Risk report 2022 clearly refers to it, without repeating this information. For this purpose, a Disclosure map is established.

#### Mapping with Pillar III disclosure

Article CRR	Disclosure requirement	Reference to the chapter in present document		Risk report annex	Reference to external documents: Management report (MR) / Financial statements (FS)
435	Risk Management objectives and policies	II.	Risk management governance	●	
436	Scope of application	I.	Regulatory framework and Pillar III disclosure	●	
437	Own funds	III.	Equity and capital adequacy	●	
437A	MREL	III.	Equity and capital adequacy	●	
438	Own funds requirements and risk-weighted exposures	III.	Equity and capital adequacy	●	
439	Exposure to counterparty credit risk	IV.4	Counterparty credit risk	●	
440	Countercyclical capital buffers	III.	Equity and capital adequacy	●	
441	Indicators of global systemic importance	Not applicable for Belfius			
442	Credit risk adjustments	IV.3	Credit risk management and governance	●	Accounting policies - section 6.5 Impairment of financial instruments
443	Encumbered and unencumbered assets	VI.3	Encumbered assets	●	Risk management - Section Liquidity Risk (MR)
444	Use of ECAs	IV.2.3	Standardised approaches		
445	Exposure to market risk	V.3	Trading market risk	●	
446	Operational risk management	VII.2	Non-financial risk - operational risk		
447	Key metrics		Summary of risk profile	●	
448	Exposure to interest rate risk on positions not included in the trading book	V.2	Structural & ALM risk	●	Risk management - Section Market Risk (MR)
449	Exposure to securitisation positions	IV.6 VI.2	Securitisation risk Securitisation activity as originator"	●	
449A	ESG risks	VIII	ESG risk management	●	Sustainability report (MR)
450	Remuneration policy			●	Corporate governance (MR)
451	Leverage	III.	Equity and capital adequacy	●	
451A	Liquidity requirements	VI	Liquidity Risk	●	
452	Use of the IRB Approach to credit risk	IV.2.2 X.2	Internal rating based approaches Risk methodology	●	
453	Use of credit risk mitigation techniques	IV.3.3	Credit risk mitigation techniques	●	
454	Use of the Advanced Measurement Approaches to operational risk	Not applicable for Belfius			
455	Use of Internal Market Risk Models	V.3	Trading market risk	●	



### I.1.3.3. Pillar 3 - Risk report annexes with all tables

As EBA encourages institutions to disclose the quantitative templates in an editable format, the tables listed in the Reference table are not included in the Risk report itself but published in a separate excel file referred as the Annex of the Risk report (Risk report Annex.xls) published on the same time as the Risk report itself. You will find this reference table here beneath.

#### Risk report annex reference table: quantitative templates

##### CAPITAL BASE AND CAPITAL REQUIREMENTS

KM1	Key metrics
OV1	Overview of risk weighted exposure amounts
CC1	Composition of regulatory own funds
CC2	Reconciliation of regulatory own funds to balance sheet in the audited financial statements
INS1	Non-deducted participations in insurance undertakings
INS2	Financial conglomerates information on own funds and capital adequacy ratio
CCA	Main features of regulatory own funds instruments and eligible liabilities instruments
KM2	Key metrics for MREL
TLAC1	MREL capacity and composition
TLAC3	Creditor ranking
LRSUM	Summary reconciliation of accounting assets and leverage ratio exposures
LRCOM	Leverage ratio common disclosure
LRSPL	Split-up of on balance sheet exposures (excluding derivatives, SFTs and exempted exposures)
IFRS9	IFRS 9 transitional arrangements
CCYB1	Geographical distribution of credit exposures relevant for the calculation of the countercyclical buffer
CCYB2	Amount of institution-specific countercyclical capital buffer

##### GROUP STRUCTURE AND SCOPE OF APPLICATION

LI1	Differences between accounting and regulatory scopes of consolidation and mapping of financial statements with regulatory risk categories
LI2	Main sources of differences between regulatory exposure amounts and carrying values in financial statements
LI3	Outline of the differences in the scopes of consolidation (entity by entity)

##### CREDIT RISK

CR1	Performing and non-performing exposures and related provisions
CR1-A	Maturity of exposures
CQ1	Credit quality of forborne exposures
CQ3	Credit quality of performing and non-performing exposures by past due days
CQ4	Quality of non-performing exposures by geography
CQ5	Credit quality of loans and advances by industry
CR3	CRM techniques overview: Disclosure of the use of credit risk mitigation techniques
CR4	Standardised approach - Credit risk exposure and CRM effects
CR5	Standardised approach
CR6	IRB approach – Credit risk exposures by exposure class and PD range
CR6-A	Scope of the use of IRB and SA approaches
CR7	IRB approach – Effect on the RWEAs of credit derivatives used as CRM techniques
CR7-A	IRB approach – Disclosure of the extent of the use of CRM techniques
CR8	RWEA flow statements of credit risk exposures under the IRB approach
CR9	IRB approach – Back-testing of PD per exposure class (fixed PD scale)
CR10	Specialised lending and equity exposures under the simple riskweighted approach

##### COVID 19 MEASURES

TEMPLATE 2	Breakdown of loans and advances subject to legislative and non-legislative moratoria by residual maturity of moratoria
TEMPLATE 3	Information on newly originated loans and advances provided under newly applicable public guarantee schemes introduced in response to COVID-19 crisis

##### COUNTERPARTY CREDIT RISK

CCR1	Analysis of CCR exposure by approach
CCR2	Transactions subject to own funds requirements for CVA risk
CCR3	Standardised approach – CCR exposures by regulatory exposure class and risk weights
CCR4	IRB approach – CCR exposures by exposure class and PD scale
CCR5	Composition of collateral for CCR exposures
CCR6	Credit derivatives exposures
CCR8	Exposures to CCPs

##### SECURITISATION

SEC1	Securitisation exposures in the non-trading book
SEC4	Securitisation exposures in the non-trading book and associated regulatory capital requirements - institution acting as investor



**MARKET RISK**

MR1	Market risk under the standardised approach
MR2-A	Market risk under the internal Model Approach (IMA)
MR2-B	RWA flow statements of market risk exposures under the IMA
MR3	IMA values for trading portfolios
MR4	Comparison of VaR estimates with gains/losses
PV1	Prudent valuation adjustments (PVA)

**INTEREST RATE RISK IN THE BANKING BOOK**

IRRBB1	Interest rate risks of non-trading book activities
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**FUNDING & LIQUIDITY RISK**

LIQ1	Quantitative information of LCR
LIQ2	Net Stable Funding Ratio
AE1	Encumbered and unencumbered assets
AE2	Collateral received and own debt securities issued
AE3	Sources of encumbrance

**OPERATIONAL RISK**

OR1	Operational risk own funds requirements and risk-weighted exposure amounts
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**REMUNERATION**

REM1	Remuneration awarded for the financial year
REM2	Special payments to staff whose professional activities have a material impact on institutions' risk profile (identified staff)
REM3	Deferred remuneration
REM4	Remuneration of 1 million EUR or more per year
REM5	Information on remuneration of staff whose professional activities have a material impact on institutions' risk profile (identified staff)

**ESG**

TEMPLATE 1	Exposures towards carbon-related sectors
TEMPLATE 2	Energy efficiency of the collateral (EPC)
TEMPLATE 4	Exposures to top 20 carbon-intensive firms
TEMPLATE 5	Exposures subject to physical risks

**Risk report annex reference table: qualitative templates**

Qualitative information has also been included in this Annex relating directly to the quantitative elements presented in order to facilitate their interpretation.

LIA	Explanations of differences between accounting and regulatory exposure amounts
LIB	Other qualitative information on the scope of application
SECA	Qualitative disclosure requirements related to securitisation exposures
IRRBBA	Qualitative information on interest rate risks of non-trading book activities
LIQA	Liquidity management
LIQB	Qualitative information on LCR
TABLE 1	Qualitative information on Environmental Risk
TABLE 2	Qualitative information on Social Risk
TABLE 3	Qualitative information on Governance Risk

# II. Risk management governance

Risk management is rooted in Belfius' corporate governance and the principles for risk appetite are incorporated at the highest governance level.

Belfius risk profile is decided by the Board of Directors through the risk appetite, and the risk appetite framework is reviewed and updated (at least) once a year. The approved targets and limits are translated into risk management policies and guidelines, such as limits on authorisations and business activity.

The compliance with the risk appetite framework is monitored and reported quarterly to the Management Board and to the Board of Directors.

## II.1. Governance arrangements



For the global governance arrangements at Belfius Bank and Belfius Insurance, we refer to the respective Annual Reports (see chapter Corporate governance).

## II.2. Risk governance model at Belfius Bank

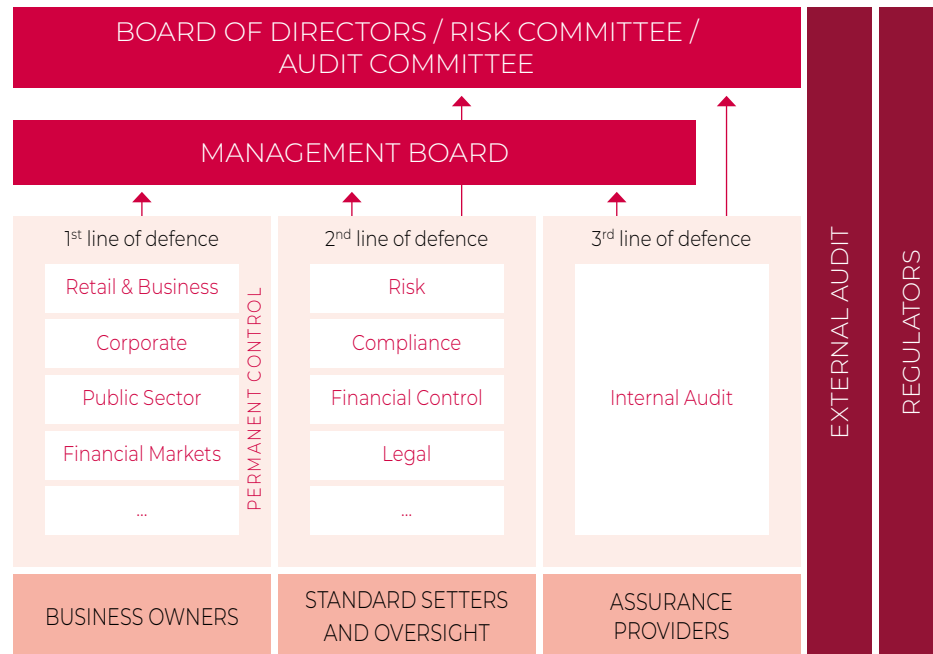
### II.2.1. Three lines of defence model

The Belfius risk management framework is based on the 3 Lines of Defence (3 LoD's) model with a set of adapted and effective internal controls.

- The **first line of defence** is the responsibility of the business (and support lines when applicable) and their management as this is where the risks are taken (handled) and where risks are potentially mitigated : they own, manage and control risk (Business Lines/Front) within the framework designed by the 2nd LoD.  
The Permanent Control functions within the business lines play a key pillar in this respect. These have been set up in each main business lines: one for PBR and one for WEP.
- The **second line of defence** is the responsibility of the (transversal) control functions assured, mainly but not exclusively, by Risk and Compliance, which are independent from the business: they define the risk management framework (policies, guidelines, Risk Appetite Framework...), monitor and control the risks in support of the 1st line (Risk, Financial control, Legal, Compliance) and keep global risk oversight. Within the 2nd line, a new department was created this year to trigger synergies between the quantitative pole previously part of the Strategic Risk Management (SRM) and Credit Risk Modelling (CRM) departments under the leadership of a new appointed head.
- The **third line of defence** is the responsibility of the internal audit function, which provides an independent review of the first two lines of defence.



Although external parties are not formally considered to be among an organization's 3 lines of defense, groups such as external auditors and regulators play an important role regarding the organization's overall governance and control structure.

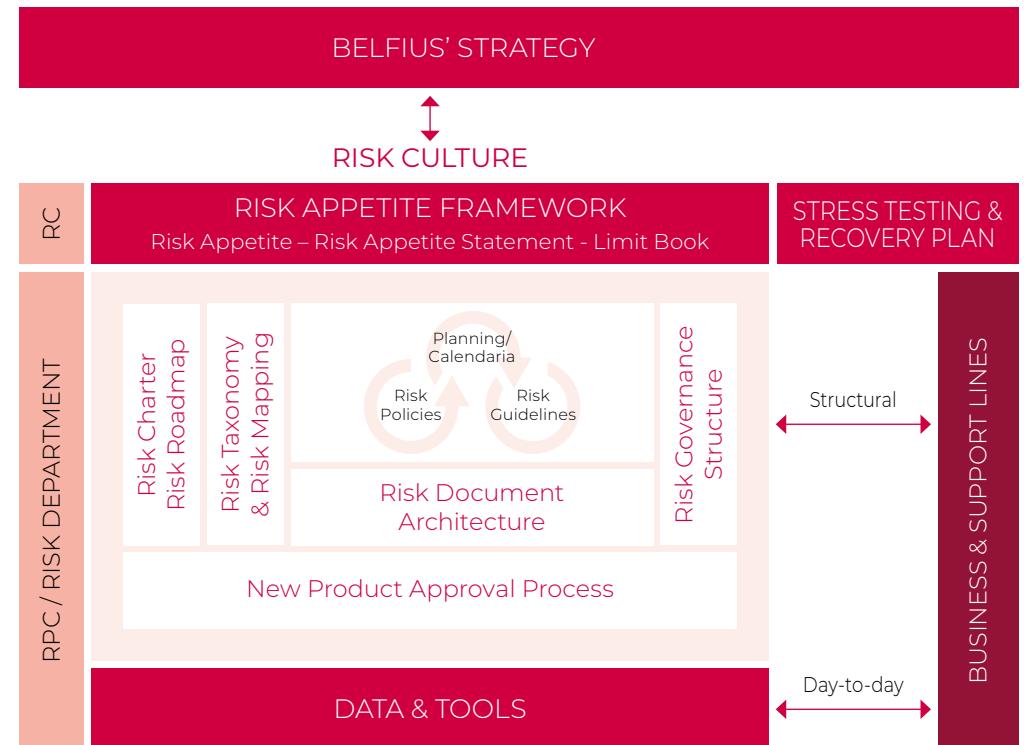


With regards to the 3 LoD model, the Risk Mapping enables a clear assignment of responsibilities and ensures a comprehensive risk coverage as well as an enhanced capacity to spot gaps and define action plans. This risk mapping is regularly updated, in order to capture all newly identified risk categories in accordance with the adjustments brought to the Belfius' Risk Taxonomy. Both the Risk Taxonomy and Risk Mapping have been revised in 2022.

The Board of Directors reviews the Senior Management Report on the Assessment of the Internal Control, which includes assessments of the principal risk areas, on a yearly basis. The review documents the quality of the internal control and risk management and identifies weaknesses and needs for improvement.

## II.2.2. Risk management framework

The risk management framework aims to implement sound, prudent and effective risk management and corporate governance. It aims to cover in a consistent way all elements required for a sound risk management.



### II.2.2.1. The Risk Appetite Framework (RAF)

(see also Equity and Capital Adequacy – III.3.3.1. Risk Appetite)

The Risk Appetite Framework (RAF) is the expression, at the highest consolidated level, of the risks Belfius is prepared to take, or not to take, as a stand-alone group pursuing its own strategy and financial targets. It applies group-wide and all (sub-)limits and risk guidelines must be consistent with it. It is composed of 3 levels:



- Level 1 includes high level risk indicators and qualitative statements;
- Level 2 includes more detailed KRI's on a broad range of key risks;
- Level 3 concerns the operational limit book and activity or entity specific risk indicators.

The RAF is consistent with the Belfius Group strategy and financial targets. The RAF must be seen as an evolutive process in which:

- risk coverage and risk level are revised on a yearly basis;
- defined key Risk Indicators (KRI's) and limits are regularly checked against business strategies with the annual check that the RAF limits are respected, both in base case and in case of stress scenarios, when designing the Financial plan.

The RAF covers both qualitative and quantitative indicators, both related to financial as non-financial risks. Qualitative indicators are embedded in the RAF under the form of statements, while quantitative indicators are based on regulatory requirements (CET 1, LCR, NFSR, MREL,...) and internal indicators deemed relevant to monitor Belfius' risk profile (EaR, operational losses, data breaches, internal fraud, compliance, ESG risks,...).

For quantitative indicators, the Board of Directors defines tolerance levels which need to be respected at all times. In case of breaches, action plans must be submitted to the Board of Directors. The RAF report is presented to the Board of Directors on a quarterly basis.

As the RAF is the expression, at the highest consolidated level, of the risks Belfius is prepared to take or not to take, the Management Board has the responsibility to implement the decided risk appetite into the daily transactions. This is done through the implementation of a detailed limit framework, a committee structure and a cascade of information/decision briefings to all risk management stakeholders, promoting an environment of open and constructive engagement.

The RAF has been rolled-out in the subsidiaries has been realised to strengthen the conglomerate dimension, These RAF's are based on the RAF at group level, reflecting and monitoring the own (financial and non-financial) vulnerabilities and risks of each subsidiary.

### II.2.2.2. The Risk Charter

Belfius Bank has determined the main risk principles and guidance for all stakeholders and departments involved and more specifically for Belfius risk management, in a Risk Charter.

### II.2.2.3. The Risk Roadmap

Via its risk roadmap, Belfius Bank sets and communicates the overall objectives, actions and priorities for the Risk department to its team members and its main stakeholders (1 to 2-year time horizon).

### II.2.2.4. The Risk Taxonomy and Risk Mapping

The Risk Taxonomy is a common set of risk categories, used within Belfius. The Belfius Risk Taxonomy is integrated and standardized: one basic classification: same risk types and classification throughout the group & one description for each risk category & risk type.

The Belfius Risk Mapping defines clear roles and responsibilities for all risk types and tasks within the Bank.

The general Risk Taxonomy & Risk Mapping have been updated in 2022 with more detail for compliance risk.

### II.2.2.5. The Risk Governance Structure

The Risk Governance Structure defines a robust set-up of Risk Committees incorporating effective communication and reporting lines with clear and consistent assignment of responsibilities and authorities; consistently assigns roles and responsibilities to both Risk/Risk & Business Committees and positions decision taking (and their monitoring) at an adequate management level in a coherent way.

### II.2.2.6. Risk Policies & Guidelines

The Risk Policies and Guidelines constitute an aggregated set of specific risk policies and guidelines to concretize the desired global risk management governance and culture; define strategies, roles and responsibilities, concepts and objectives of an activity; and give clear instructions for stakeholders to be applied in a day-to-day business context.

### II. 2.2.7. Risk Document Architecture

The Risk Document Architecture describes the main Risk document types on a high level, together with the responsible issuer, the validation instance and the frequency of update.



#### II.2.2.8. New Product Approval Process (NPAP)

The process of developing a “product, activity, process or system” involves several steps that must be completed before the new (or changed) function can be implemented. The policy establishes the overall process and the accountability of the parties involved in this process. Therefore, it defines the governance and describes the new product approval process.

We also refer to VII.2.3.3. of this report.

#### II.2.2.9. Stress Testing & Recovery Plan

Stress tests are designed to measure the group' sensitivity (in terms of losses, additional weighted risks, liquidity needs or equity capital requirements) to scenarios featuring significant unexpected economic or market shocks and/or shocks affecting Belfius's own financial situation.

Following the implementation of the Bank Recovery and Resolution Directive (BRRD) and the Belgian Banking Law, Belfius Bank has to prepare a recovery plan, which is updated on a yearly basis. As part of the crisis management framework, the recovery plan outlines how the Bank can react to a financial stress to avoid resolution. In this context, it aims at preparing the Bank to develop recovery measures to restore the financial strength under various types of stress scenarios. The plan is fully integrated in Belfius' Risk management framework.

For further information about the Stress Testing and Recovery Plan, we refer to III.3.3.2.3. and III.3.3.2.4.

#### II.2.2.10. The Risk Culture

The Risk Culture is a policy approved by Belfius Bank covering an essential concept about standards, attitudes, behaviours and judgements and playing an important role in influencing the actions and decisions taken by individuals within the Bank, related to risk awareness, risk taking and risk management, all within a strong risk governance and determining the collective ability to identify, understand, openly discuss and act on the current and future risks.

Belfius' risk culture is fully aligned with Belfius' corporate values and culture. Within risk, we fully embrace the Belfius' corporate culture as all our actions and decisions have the Belfius purpose as main driver : to be meaningful and inspiring for the Belgian society, together.

Risk culture is extremely important within Belfius. Risk culture is embedded at all levels of the Group and starts with the tone at the top. The risk culture is developed via multiple complementary processes (trainings, risk & compliance academy, regulatory newsletter, messages from CRO, awareness campaigns, permanent controls in the first lines, different KRIs to achieve in the staff's management contracts).

Risk Culture is continuously enhanced: continuously working on the awareness of the Belfius risk appetite / acceptance policy and compliance risks, together with legal and tax risks, is key to further enhance the risk culture.

#### II.2.2.11 Data & Tools

Regarding tools and processes, Belfius continues to work on different initiatives in order to further improve the quality of data and increase efficiency of risk processes. Amongst those, the project aiming at the creation of a common data platform with specific attention for Risk and Finance data concepts to enable automation within Risk and Finance, the further implementation of a broad Core Banking Renewal program, the development of a future-proof simulation environment for risk financial planning and stress testing, the reinforcement of the End-User Computing control framework or the enhancement of the data quality framework.



### II.2.3. Risk governance structure

A performant risk governance structure is considered as a central cornerstone to sound risk management. A robust risk committee set-up incorporates effective communication and reporting lines and a clear delineation of responsibilities and competences.

#### II.2.3.1. Risk Committee operating within the Board of Directors: Risk Committee (RC)



BOARD OF DIRECTORS

RISK COMMITTEE

For a more extensive description of the Risk Committee (including remit and functioning), we refer to the Belfius Management report, chapter Corporate governance.

The Risk Committee (RC) is one of the advisory committees operating within the Board of Directors. It has been established in accordance with Article 27 and Article 29 of the Belgian Banking law.

#### II.2.3.2. Risk Committees on strategic level operating within the Management Board

Two risk committees have been set up within the Management Board of Belfius Bank, prepared by the Risk department and meeting several times a year:

- the **Risk Policy Committee (RPC)** supervises the definition and the implementation of the Bank's principal risk management and measurement policies, processes and methodologies, and their validation status;
- the **Non-Financial Risks (NFR)** Committee ensures a well-governed and coordinated non-financial risk framework for an effective Non-financial risk management.

In addition to these two risk committees, four functional areas also report to the Management Board without a separate committee being set up for them:

- the **Credit Risk Committee (CRC)** centralizes all credit risk related topics (origination, monitoring, impairment) into one committee in presence of the Management Board members who are directly involved (CRO, Head of PBR & WEP);
- the **Financial Markets Committee (FMC)** has as prime function the effective risk management oversight and steering of the Financial Markets activities. It is held once a month with a strict quorum including members of the Management Board (CRO, CFO and Head of WEP);

- the **Assets & Liabilities Committee (ALCo)**: the ALCo has received mandate for realising the effective ALM management within the regulatory framework. The Liquidity Management Committee has been mandated by the ALCo to take care of all aspects relating to liquidity management and steering as well as the reporting;
- the **Capital Group Committee (CGC)** anticipates, prepares, analyses & monitors all capital aspects on a conglomerate level (Bank, Insurance & related subsidiaries) in compliance with regulatory, legal and economic constraints. It also acts as Prudential Watch Committee (PwaC).

#### II.2.3.3. Risk Committees on tactical/operational level

The Management Board delegates certain decisions to a tactical/operational level. The details of this delegation are set out in the applicable committee charters. For matters that fall outside this delegation, the tactical/operational level provides information or puts forward opinions to the Management Board, which then decides.

The committees that are part of the tactical/operational level are committees in which the Risk department generally participates alongside business divisions. Risk committees which are steered by the Risk department focus mainly on risk appetite and methodology. Risk/Business committees which are steered jointly by the Risk department and Business focus mainly on guidelines, transactions and risks on counterparty level. The Risk department has a veto right in many of these committees, as well as the right to bring files for decision to a higher governance level.

##### II.2.3.3.1. At a general level

The **Risk Executive Committee (Risk ExCom)** is responsible for the day-to-day deployment of the Risk Appetite Framework of Belfius Bank as defined by the Board of Directors and/or the Management and bears the ultimate responsibility for the implementation of the Belfius Bank's risk roadmap.

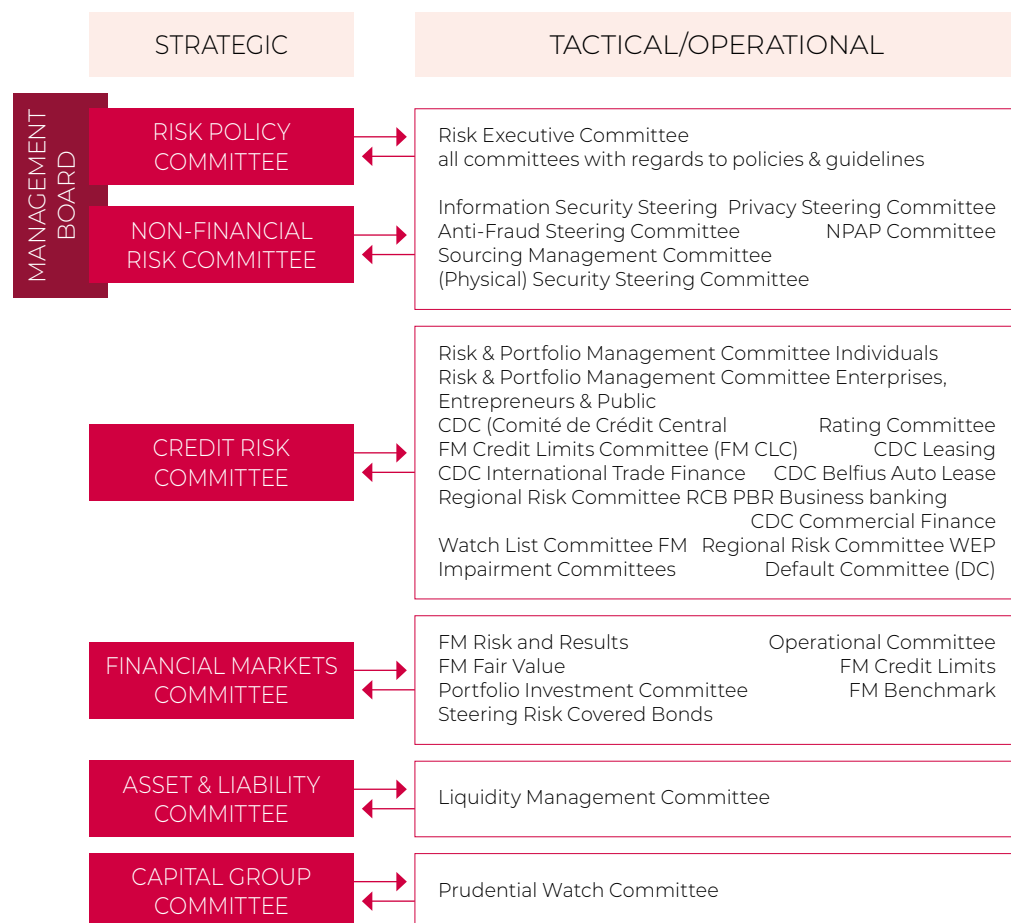
##### II.2.3.3.2. Financial Markets Risk Management

Besides the **Financial Markets Committee (FMC)** - at strategic level - several sub-committees at tactical/operational level cover financial market risk (The sub-committees are described in annex XI.4.1).

##### II.2.3.3.3. Credit Risk Management

Besides the **Credit Risk Committee (CRC)** - at strategic level - several sub-committees at tactical/operational level cover credit risk (The sub-committees are described in annex XI.4.1).





#### II.2.3.3.4. Non-Financial Risk Management

Besides the **Non-Financial Risks Committee (NFRC)** - at strategic level - several sub-committees at tactical/operational level cover specific NFR risk (The sub-committees are described in annex XI.4.1.).

### II.2.4. Risk reporting to the Boards of Directors

Belfius Risk Reporting is an essential part of the Risk Department responsibilities. Reporting should meet high standards. Timing versus reliability is the resulting balance between the level of information available and the response time available.

- Recurrent reports are based on a robust data collection, data quality and data knowledge process based on both automated and upgraded central/end-users transactions related chains.
- Ad hoc requests require tailor made solutions with adapted time-to-respond in order to support management decisions.

The internal control process ensures the completeness of reports as well as the reliability and (transversal - horizontal & vertical) overall consistency. Risk Reporting aims at making management aware of the overall risk profile and of material risks in order to ensure appropriate decision-taking process based on among others clear risk information/opinions.

The table on the next page shows the regular independent reports on risk and compliance sent to the Boards of Directors (this does not include ad hoc or specific risk reportings). In addition, the Board of Directors is informed in case of breach of risk appetite limits, threshold values in the recovery plan or other significant events or changes in the risk situation.



Intragroup transactions include all transactions which result in (financial) assets or liabilities being transferred between undertakings within the Belfius group.

The monitoring of Intra-Group Transactions (IGT) is executed following approved Belfius Bank & Belfius Insurance thresholds (capital, liquidity, concentration, leverage, MREL, encumbrance, duration gap), validated ex ante at Capital Group Committee (CGC) and reported ex-post to the regulators (FICOD reporting) on a quarterly basis.

A policy and governance is installed to identify and report intragroup transactions that could be qualified as “prudential arbitrage”. Please note that in recent years, no significant intragroup transactions that could be qualified as “prudential arbitrage” were recorded within the Belfius group.

Intragroup transactions (e.g. sales between different entities of the group) are performed at market price and consolidation adjustments are required to reset to the situation before the transaction. More in particular, seeing that the transaction remains within the consolidation scope, any realized gain/loss should be eliminated.

The most important intragroup transactions are related to contributions in kind of direct property, sales of bonds and covered bonds and sales of shares and participations in order to centralize the management of participations.

## Reporting to the BoD

Frequency	Reporting	
QUARTERLY	The Quarterly Risk Report (QRR)	The QRR is the main quarterly report of Risk Management towards the Board of Directors. Besides a global risk executive summary on the global risk situation and the evolution during the last quarter, the report covers all relevant information on each risk type.
	The RAF Report	The RAF report is the quarterly reporting on the RAF and all Level 1 and Level 2 RAF indicators. In case of a breach, action plans are presented.
HALF-YEARLY	Compliance Activity report	Report on the main Compliance evolutions and activities over the past 6 month, with an overview of the main Compliance risks and the planned actions to remediate them.
YEARLY	Senior Management Report on the Assessment of the Internal Control	The yearly report on the effectiveness of the internal controls reports on the the status and effectiveness of the internal control, which includes assessments of the principal risk areas. The review documents the quality of the internal control and risk management efforts and identifies any weaknesses and needs for improvement.
	Risk Roadmap	The Risk Roadmap expresses the the risk management objectives, actions and priorities of the Risk department (1-2 years time horizon).
	ICAAP-ILAAP	The ICAAP and ILAAP documents must be reviewed at least annually by the Board. The ICAAP report contains a detailed description of Belfius' process for self-assessments of risk and the capital situation. The ILAAP report describes and assesses Belfius' liquidity situation.
	Recovery Plan	Following the implementation of the Bank Recovery and Resolution Directive (BRRD) and the Belgian Banking Law, Belfius Bank has to prepare a recovery plan, which is updated on a yearly basis. As part of the crisis management framework, the recovery plan outlines how the Bank can react to a financial stress to avoid resolution.
	Compliance Action plan	Report with the evaluation of the Compliance action plan of the previous year and the proposed Compliance action plan for the current year.
	AML year report	Annual report by the AML Compliance Officer, on the AML governance, organization, project, activities and risks within Belfius.
	Yearly evaluation of the Compliance Function	Evaluation by the Board of directors, based on the input of the internal audit department, whether the functioning of the Compliance Function is in line with the regulatory expectations, as defined by the circular of the FSMA/NBB
	Annual Model Report of the Validation (Model Management Framework)	The report provides a global overview of the situation of the models within the bank: quality of the models, compliance with regulatory requirements, developments over the last year, planning for the coming year.



## II.3. Risk governance model at Belfius Insurance



For the Risk Governance model at Belfius Insurance, we refer to the Belfius Insurance Annual Report, chapter Risk management.

## II.4. Risk department organisation, role and responsibilities

### II.4.1. General mission

The mission and role of the Risk department is to oversee the implementation of a robust risk management framework which relies on:

- A sound governance, with well-defined roles & responsibilities, reporting lines and escalation mechanisms;
- A sound and holistic risk appetite framework, with key financial & non-financial KRI's & internal controls to identify, manage & report risks in a timely manner;
- Well-defined policies, process covering all risks in their scope;
- Well-developed quantitative & qualitative methodologies to assess risks.

The Risk department has the responsibility to establish a set of risk policies and guidelines defining the risk governance and management including an adequate committee structure with clear and consistent assignment of responsibilities.

The overall objective of the Risk department is to ensure that the Group strategy is in line with the sound risk management framework defined by the BoD.

The Risk Department ensures the implementation of a sound, prudent and effective risk management, based on an extensive understanding of the existing and emerging risks. Based on a swift and proactive identification process alerting on potential evolution of

financial as well as non-financial risks. Furthermore, the risk department helps building a risk culture within the organisation including a tone from the top and strong communication processes.

Under a more global picture, risk management is the keeper for the global balance between the bank's solvency, liquidity and profitability to be respected in all decisions.

### II.4.2. Risk organisation

#### II.4.2.1. At conglomerate level

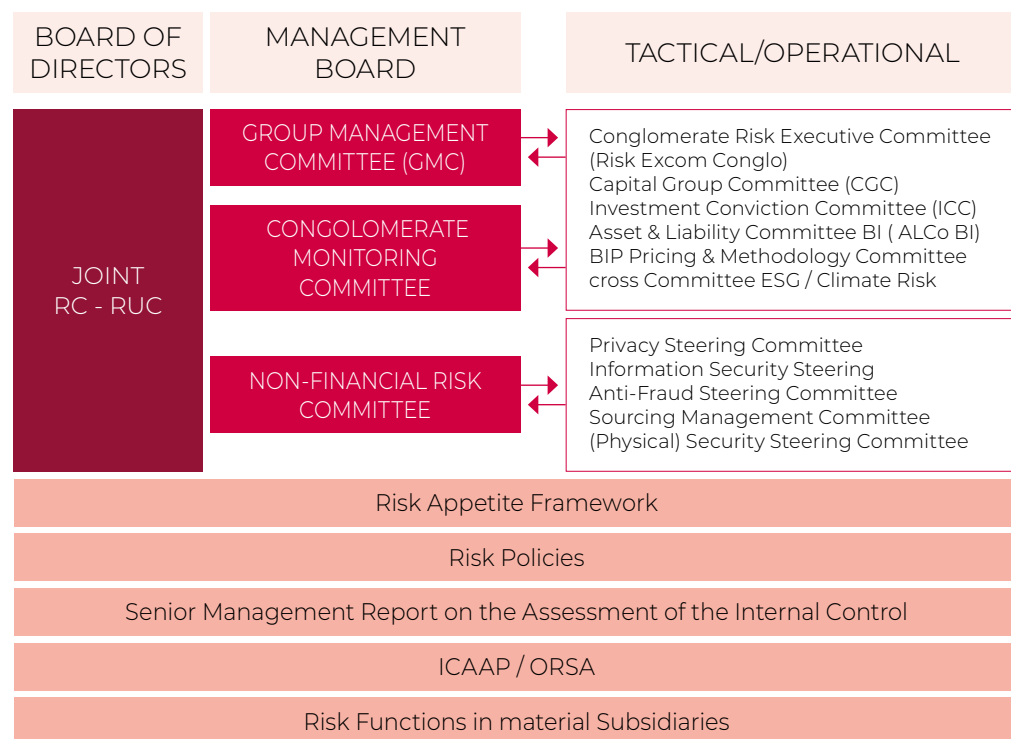
In line with Art. 194 of the Banking Law, Belfius is managing risks based on a group-wide<sup>(1)</sup>, consolidated and integrated risk management framework. It assumes a risk-based approach to further strengthen the conglomerate dimension.

The overall objective is to have a risk management coordination at conglomerate level, ensuring consistency while respecting the entities' specificities, responsibilities and legal/regulatory obligations. The main pillars of this risk management are an appropriate risk governance structure, a robust and aligned risk framework, risk monitoring and decision-taking process.

The conglomerate dimension of Belfius' Risk Governance includes:

- At the level of the Board of Directors : joint RC/RUC's (Risk Committee / Risk & Underwriting Committee).
- At the level of the Management Board (strategic level):
  - A Group Management Committee (GMC), with potential conflicts dealt with at the level of Mediation Committee
  - A joint Non-Financial Risk Committee (NFRC), related to all NFR topics
  - A Conglomerate Monitoring Committee, assuring an overview of all subsidiaries. It tackles amongst other the risk management framework of each subsidiary.
- At a general risk level (tactical/operational level), several committees are 'joint' or 'Belfius Together' (BB: Belfius Bank; BI: Belfius Insurance & BIP: Belfius Investment Partners):
  - The Conglo Risk Executive Committee (Conglo Risk ExCom) with participation of the CRO of Belins and BIP
  - The Capital Group Committee (CGC) is a joint BB and BI committee
  - The Investment Conviction Committee (ICC) is a joint BB, BI and BIP committee
  - The Assets & Liabilities Committee (ALCo) of Belins in which BB participates
  - The BIP Pricing & Methodology Committee BIP in which BB participates.

<sup>(1)</sup> Belfius Bank, Belfius Insurance, Belfius Investment Partners



- At specific risk level, several sub-domains have a common governance with 'Belfius Together' sub-committees for various risks:

- The Information Security Committee
- The Anti-Fraud Steering Committee
- The Privacy Steering Committee
- The (Physical) Security Steering Committee
- The Outsourcing Management Committee
- A cross committee for ESG/Climate Risk.

The 3 main entities (BB, BI and BIP) have similar risk policies, guidelines framework and approach. They use similar and/or common tools ensuring consistency and enabling coherence as well as an integrated management of risks and internal controls:

- Risk Appetite Framework: defined and validated group wide by Belfius Bank and cascaded down to subsidiaries; based on the RAF at group level and reflecting and monitoring their own (financial and non-financial) vulnerabilities and risks.
- Risk Management & Control executed through the "Senior Management Report on the Assessment of the Internal Control".
- ICAAP (Belfius Bank & BIP), Recovery Plan (Belfius Bank) and ORSA (Own Risk and Solvency Assessment; Belfius Insurance).

The Conglomerate dimension has been further developed with a closer oversight of all material subsidiaries, on other dimensions as well:

- Further alignment of major Risk policies in a conglomerate approach;
- The creation of a risk function in all material subsidiaries;
- An AML-risk assessment on conglomerate level was completed at the end of 2022.

More information regarding the risk governance of Belfius Insurance can be found in the Annual Report of Belfius Insurance, chapter Risk management.



The Risk department has further enhanced the conglomerate dimension, in line with the Group's bank-insurance strategy. The Risk Management organisation takes more systematically a conglomerate vision while ensuring quality, efficiency and expertise in both entities at all times.

For example:

- With regards to the organisation of non-financial risks:
  - Mutual risk functions are in place ensuring coordination and alignment between both banking and insurance sides, including specialized functions such as DPO and CISO.
  - An NFR-related committee structure involving appropriate level of management from both banking and insurance sides has been set up.
  - A yearly internal control report is written, including risk profile overview of Belfius Insurance and Belfius Investment partners.
  - A risk management framework has been implemented at conglomerate level, including the adoption of NFR-related policies and the development of risk appetite frameworks with both NFR-related qualitative and quantitative indicators for all material subsidiaries.

- With regards to the organisation of financial markets risk:
  - Regarding the subsidiary Belfius Ireland is concerned, all risk management functions are centralized in the FM Risk Management team in Brussels.
  - Regarding Belfius Insurance, all aspects of risk management that belong to the competence of Financial Market Risk Management are also centralized at Belfius Bank's team.
  - For Belfius Investment Partners, FM Risk Management provides the credit risk analyses of the financial counterparties with whom BIP engages.

#### 11.4.2.2. At Belfius Bank level

This risk organisation considers:

- Belfius as a major actor in the Belgian financial sector/context serving Belgian society/economy;
- the size of Belfius;
- the strategic objectives of Belfius;
- the needed cooperation between methodological and operational risk teams;
- the extension and reinforcement of regulations (Basel III and beyond) and additional (inter)national regulatory frameworks;
- the liquidity, solvency and profitability challenges;
- the necessary promotion of a risk culture within Belfius.

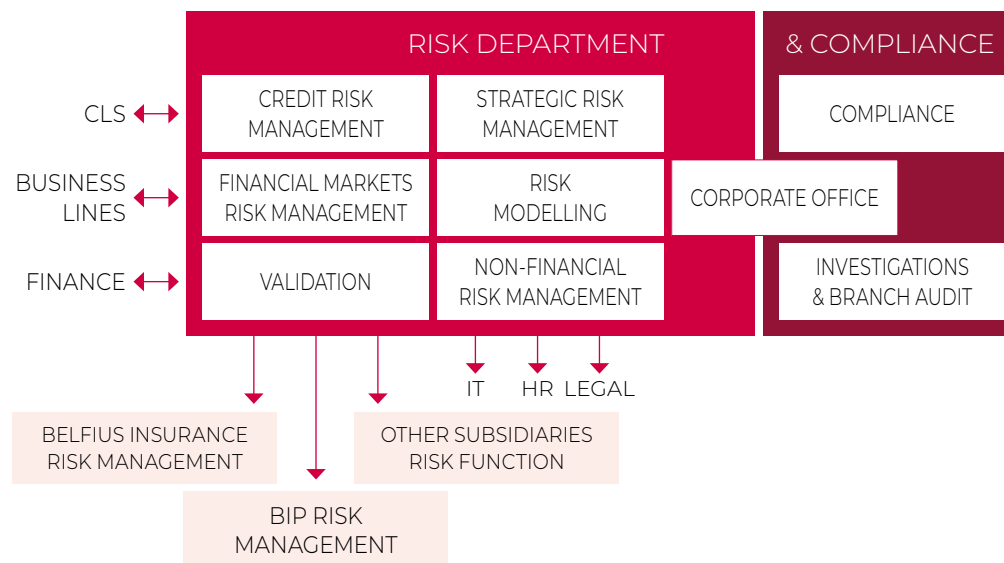
The main missions of the various divisions of the Risk department (see graph on the right).

#### II.4.2.2.1. Credit Risk Management

The goal pursued by Credit Risk Management is the development and maintenance of an efficient and robust risk management framework for the Retail, Business & Corporates and Public Sector credit activities, based on proactive risk control and risk-challenger view.

#### II.4.2.2.2. FM Risk Management

The focus of FM Risk Management is to develop and to maintain an efficient and robust risk management framework for treasury, portfolio management and financial markets activities, in strict compliance with the risk appetite and the business strategy of Belfius Bank.



#### II.4.2.2.3. Strategic Risk Management

The Strategic Risk Management team enhances the strategic dimension of risk management, increases consistency within the group and ensures a relevant and consistent risk approach. Strategic Risk Management includes a.o. the "Asset & Liability Management & Liquidity Risk" team (Risk –ALR), exercising the second line of defence on the ALM & Liquidity functions, the team responsible for the risk insights on financial planning and performing Stress Testing assessments, a Strategy Development Center active in 2022 in setting robust building blocks of our ESG risk Framework, ...

#### 11.4.2.2.4. Risk Modelling team

The risk modelling team gathers the risk modelling teams that were previously included in the Credit Risk Management department and the Strategic Risk Management department.

#### 11.4.2.2.5. Validation

The primary task of Validation is to independently ensure quality, reliability, proper functioning and adequate use of the models developed by Belfius Bank as well as their compliance with regulatory requirements during their entire life cycle. Validation also plays an important role in the assessments/communication of the strengths and weaknesses of models to help all stakeholders to improve their understanding and use.



#### II.4.2.2.6. Non-Financial Risk

The Non-Financial Risks department acts as the 2nd line of defence for the main non-financial risks and acts as a corporate crisis, BCP manager within Belfius. The division includes a Transversal NFR team, the DPO (Data Privacy Officer) as well as the CISO (Chief Information Security Officer).

The Non-Financial Risks team acts on behalf of Bank and Insurance entities.

#### II.4.2.2.7. Compliance

The Compliance department acts as the 2nd line of defence for the management of the Compliance Risks, as defined in the 2012 circular of the NBB and FSMA. The department consists of a team of Compliance Business Advisors, a Compliance Risk Monitoring teams, as well as an Anti-Money Laundering team.

#### II.4.2.2.8. CRO corporate office

A CRO corporate office has been created in 2021 with the objective of supporting the CRO and her teams in the journey towards a more efficient and more holistic risk management. Its responsibilities namely entail the following:

- Ensure an effective Risk & Compliance organisation with clear objectives and ambitions.
- Coordinate, monitor and assess strategic (risk) projects.
- Ensure consistency, prepare and monitor relationships with internal and external stakeholders.

#### II.4.2.2.9. Investigations & Branch Audit department

The Investigations & Branch Audit department conducts investigations into suspicions of internal fraud and provides, through on-site reviews, reasonable assurance regarding the management of the risks resulting from human interventions in the distribution channels.

The Investigations activities cover all entities of the Belfius group, including its subsidiaries as well as the independent distribution networks whereas the Branch Audit activities do not include Belfius Insurance.

#### II.4.2.3. At Belfius Insurance level

More information regarding the risk organisation of Belfius Insurance can be found in the Annual Report of Belfius Insurance, chapter Risk management.



## II.5. Belfius Risk Cartography

The RICAP (Risk Identification and Cartography Assessment Process) was implemented in 2011. The RICAP consists of a series of meetings with key business representatives to ensure all risks are identified, accounting for current and forward-looking aspects.

The following table illustrates the risk identification process within Belfius. It represents the risk cartography of Belfius at 31 December 2022, which aims at screening all risks to ensure they are identified, quantified and monitored.

All risk types are classified as Financial, Non-Financial or Conglomerate risks (further segmented into financial or non-financial risk types).

Financial risks are capitalised except Liquidity Risk for which no capital is set aside as Belfius perceives that capital is not the adequate answer to cover this risk. The liquidity risk is actively monitored and managed through gap limits and stress tests.

Most of Non-financial risks are not capitalized but will generally be contained by adequate procedures and monitored through appropriate processes.

Business Risk, even if not covered by capital, is considered through Earnings at Risk and Stress Testing framework.

Conglomerate risks can be further broken down into financial and non-financial risks.

Credit risk, market risk and operational risks are subject to the Pillar 1 framework and are also included in the Pillar 2 framework.

The Pillar 1 and Pillar 2 approaches to the same risks might differ at four levels:

- the perimeter;
- the methodology;
- the risk parameters used;
- the level of severity.





		Pillar 1	Pillar 2	Covered by Capital	
FINANCIAL RISKS	CREDIT RISK	Solvency Risk	●	●	Yes
		Country Risk	●	●	Yes
		Counterparty Credit Risk	●	●	Yes
		Residual/Recovery Risk		●	Yes
		Settlement Risk		●	Yes
	STRUCTURAL MARKET AND ALM RISK	Interest Rate Risk		●	Yes
		Price Risk <sup>(1)</sup>	●	●	Yes
		Currency Risk		●	Yes
		Spread Risk		●	Yes
		Liquidity Risk		●	No
	TRADING MARKET RISK	Funding Risk		●	Yes
		Interest Rate Risk	●	●	Yes
		Spread Risk	●	●	Yes
		Price Risk	●	●	Yes
		Currency Risk	●	●	Yes
		Liquidity Risk		●	No
		Other Market Risks <sup>(2)</sup>		●	Yes
	OTHER RISKS	Insurance Specific Risks (incl. Life, Non-Life and Health)		●	Yes
		Behavioural Risk (incl. Prepayment Risk)		●	Yes
		Pension Plan Risk		●	Yes
		Model Risk <sup>(3)</sup>	●	●	Yes
		Operational Risk	●	●	Yes
NON FINANCIAL RISKS	OPERATIONAL RISK	Operational Risk	●	●	Yes
		OTHER RISKS	Business Risk		●
	Strategic Risk		●	No	
	Execution Risk		●	No	
	Reputation Risk		●	No	
	External Risk		●	No	
	Compliance Risk		●	No	
	Legal Risk		●	No	
CONGLOMERATE RISKS		Conglomerate Risk		●	No

(1) price risk includes risk on Equity exposure and Property exposure in the Banking Book.

(2) including volatility / correlation, carbon and commodities risks.

(3) consisting of Additional Value Adjustments (AVA) considered for Market and Credit Risks.

The perimeter of Pillar 2 risks is larger as Pillar 2 aims for exhaustiveness. Other risks than those included in the Pillar 1 framework are specifically included in the Belfius Pillar 2 framework i.e. settlement risk, residual/recovery risk, interest rate risk (Structural Market and ALM Risk), currency risk (Structural Market and ALM Risk), funding risk (Structural Market and ALM Risk), liquidity risk, behavioural risk, insurance specific risks, pension plan risk, business risk, strategic risk, execution risk, compliance risk, reputation risk, external risk and legal risk.

Methodologies and risk parameters used by Belfius lead to the calculation of economic capital. It is defined as the potential deviation of the Group's economic value from its expected economic value at a determined interval of confidence and time horizon. The choice made by Belfius is to estimate its risks at a severity level of 99.94% on a 1-year horizon instead of, respectively 99.9% and 1-year for Credit and Operational risks and 99% and 10-day for Market Risk as required by the Pillar 1 requirements.

As mentioned above, several risks such as business, reputation, strategic, liquidity, compliance, execution, conglomerate, external and legal risks are part of the Pillar 2 but are not capitalised, either because they are considered as non-material (currency risk) or because they are managed through appropriate processes.

In 2021, ESG risks have been embedded in the Risk Taxonomy, not as a separate risk category but as a potential driver of several traditional risk types, including credit, market, operational, strategic, business and reputational and legal risks. The ESG components of those risks are not yet capitalized but are identified, assessed, monitored and managed through specific processes. More details about ESG Risk Management can be found in Section VIII of this report.

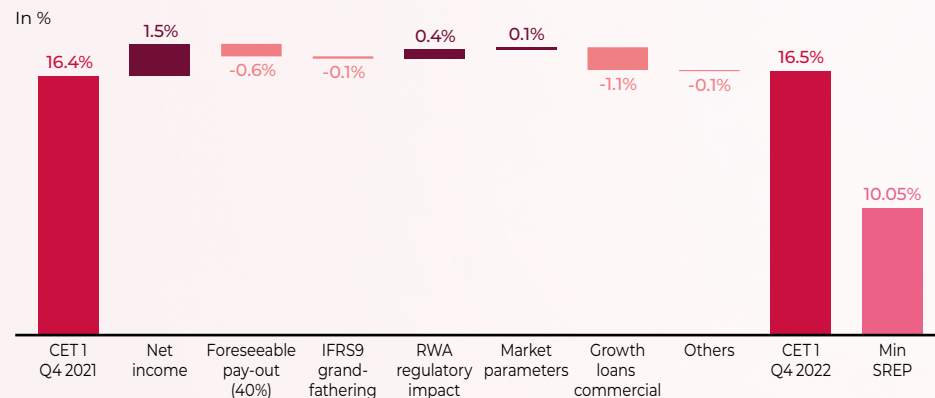
# III. Equity & Capital adequacy

A solid CET 1 ratio is enabling Belfius to continue to support the Belgian economy and to execute its commercial strategy:

- Belfius CET 1 ended at 16.5% at the end of 2022. This CET 1 ratio represents a continued strong and solid level, allowing Belfius to support its strong commercial franchise development;
- the solid capital basis compares very favourably with Belfius' minimum SREP requirements of 10.05% at the year-end and internally defined operational target (> 13.5%);
- at the year-end 2022, Belfius capacity in subordinated MREL and total MREL was already exceeding the SRB final targets to comply with on 1 January 2024.

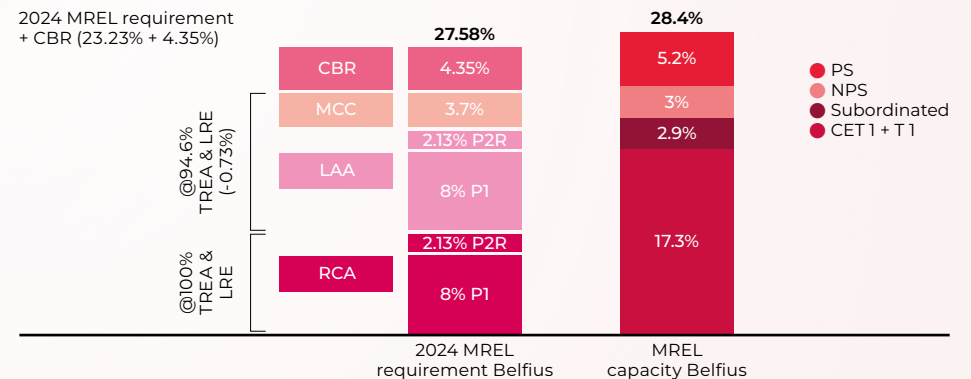
## CET 1: solid at 16.5%

This solid capital base compares comfortably with Belfius' minimum SREP level and internally defined minimum operational zone



## SRB MREL requirements

SRB methodology and formal requirement compared to Belfius' compliance – in % of TREA





## III.1. Equity

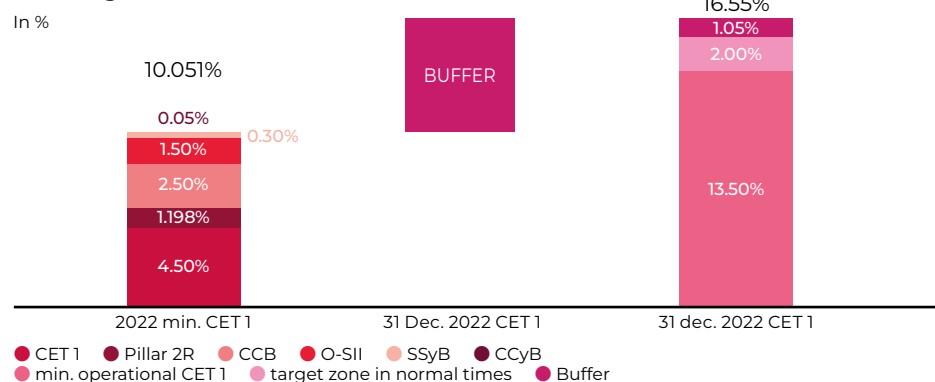
### III.1.1. Prudential supervision

#### III.1.1.1 Minimum Requirement

Belfius Bank reports on its solvency position on a consolidated level and on a statutory level in line with the revised Capital Requirements Regulation and Directive, commonly referred to as CRR 2 and CRD 5:

- the minimum capital requirements ("Pillar 1 requirements") as defined by Article 92 of Regulation (EU) 2019/876 of the European Parliament and of the Council of 20 May 2019 amending Regulation (EU) No 575/2013 (CRR 2);
- the capital requirements that are imposed by the SREP decision (Supervisory Review and Evaluation Process) pursuant to Article 16(2)(a) of Regulation (EU) No 1024/2013 and which go beyond the Pillar 1 requirements ("Pillar 2 requirements");
- the combined buffer requirement as defined in Article 128(6) of Directive (EU) 2019/878 of the European Parliament and of the Council of 20 May 2019 amending Directive 2013/36/EU (CRD 5).

#### Belfius' minimum CET 1 requirements vs. Belfius' 2022 CET 1 capital position and target



Following the annual "Supervisory Review and Evaluation Process" finalized at the beginning of 2022 and the notification of the NBB in May 2022 of the introduction of a new sectoral systemic risk buffer for Belgian residential real estate exposures, Belfius has to comply with a minimum CET 1 capital ratio for 2022 of 10.051% (before Pillar 2 Guidance):

- a Pillar 1 minimum of 4.5%;
- a Pillar 2 Requirement (P2R) of 1.198% (after split of 2.13% P2R);
- a capital conservation buffer (CCB) of 2.5%;
- a buffer for (other) domestic systemically important institutions (O-SII buffer) of 1.5% (imposed by the National Bank of Belgium);
- a sectoral systemic risk buffer of 0.30%;
- a countercyclical capital buffer (CCyB) of 0.06%.

Note that in line with the enhanced resilience of Belfius in the EBA stress test published in July 2021, the Pillar 2 Guidance (P2G) decreased from 1% to 0.75% on the CET1 capital ratio. Furthermore, the new Pillar 2 Requirement (P2R) entered into force from March 1st, 2022 and was set at 2.13%, where 13 bps represented a prudential add-on for non-performing exposures relating to the automatic application of the prudential backstop by the ECB on NPE stock as of March 31, 2018. As result, Belfius has to comply with a minimum CET1 ratio of 10.801% for 2022 (to compare with 10.635% in 2021, based on a P2G buffer of 1% back then).

The consolidated CET1 capital ratio of Belfius at the end of December 2022 stood at 16.55%, well above the 2022 applicable CET 1 capital ratio requirement of 10.051%.

Further to these regulatory requirements, Belfius stated in its Risk Appetite Framework that, in normal market circumstances and under stable regulations, it would strive to respect a minimum operational CET 1 ratio of 13.5%, on solo and consolidated levels – a policy defined before the Covid-19 pandemic. Seeing the recovery of the Belgian economy and lower effective defaults than anticipated at the start of the Covid-19 crisis, at end 2021 – during 2022, Belfius has put its capital framework back at the levels that were applicable before the start of the Covid-19 crisis, back to the minimum operational level of 13.5% CET 1 ratio (i.e. no more temporary relaxation of this level to a minimum operational zone of 12.5% to 13.5% CET 1 ratio, as was decided at the start of the Covid-19 crisis). Belfius is of course continuously monitoring the macro-economic situation in order to assess duly and diligently this capital policy.

Further details on the countercyclical buffer are provided in the Risk report annex (Tables CCyB1 and CCyB2).





### III.1.1.2 Applied methodology

Following the amendments of CRR article 473a in 2020, Belfius requested and was granted by the ECB the application of transitional measures for the first time adoption impact and all subsequent impacts of IFRS 9 on the expected credit loss model as from 31 December 2020 onwards.

As a result, the solvency metrics are referenced as “transitional” for both the CET1 capital and the risk exposure amounts.

The regulator authorised Belfius to apply article 49 of the CRR and to monitor and report solvency within the prudential scope, where Belfius Insurance is accounted for using the equity method (i.e. not fully consolidated), and to include the capital instruments of Belfius Insurance, subscribed by Belfius Bank, in the total regulatory risk exposure by applying a weighting of 370% (the so-called “Danish Compromise”).

In addition to the CRR/CRD IV regulations, Belfius is considered as a financial conglomerate with significant banking and insurance activities and is required to comply with the Financial Conglomerate Directive (FICO 2002/87/EC). For this purpose, specific reporting requirements with financial statements, regulatory capital, risk concentration and leverage ratio are sent to the regulator. These calculations and reports are made on the consolidated position of the Bank and insurance group.

At the end of 2022, Belfius complied with all requirements requested from a financial conglomerate point of view.

### III.1.2. Regulatory own funds

At the end of 2022, CET1 capital amounted to EUR 10,722 million, compared with EUR 10,658 million at the end of 2021. The increase in CET1 capital of EUR +64 million resulted mainly from the increase in regulatory core own funds by EUR +607 million partially offset by the increased correction for foreseeable dividend for EUR -16 million (based on a 40% pay-out ratio) the decreased add-back of IFRS9 provisions thanks to the transitional arrangements stated in the CRR for EUR -91 million, a decrease of “gains and losses not recognized in the statement of income” for EUR -385 million and an increase of the prudential deductions for EUR -50 million.

The deduction for foreseeable dividends, as stipulated in article 3 of CRR2, amounts to EUR 387 million, the sum of EUR 384 million based on the pay-out ratio of 40% on the result of 2022 and the correction for the Additional Tier 1 cost (accounting wise to be treated as dividend) which remained stable at EUR 3 million.

Furthermore, the transitional measure IFRS 9 on impairments amounts to EUR 216 million, the decrease is mainly due to the degressive character of this transitional measure of EUR -104 million (decrease of the multipliers for the static and the dynamic components), partially offset by the increase of the current stock of impairments of EUR +13 million.

The “gains and losses not recognised in the statement of income” amount to EUR 35 million compared to EUR 420 million in at the end of 2021, the decrease is mainly related to the decrease of the fair value of the bond and equity portfolios of EUR 373 million related to higher interest rates, higher credit spreads and deteriorated stock markets, though partially compensated by the reversal of the shadow loss adjustment and DPF in comparison to 2021 and the decrease of EUR -12 million in the remeasurement of defined benefit pension plans.

The prudential deductions amounted to EUR -308 million (compared to EUR -259 million in 2021), the increase mainly relates to:

- an increase in the deduction of software and other intangible assets of EUR -20 million related to recently activated software eligible for prudential amortization;
- the increase of insufficient loss coverage for Non Performing Exposures of EUR -14 million due to new non-performing exposures coming in the scope of the NPE loss coverage regulation (CRR2); and
- an increase of the deduction for irrevocable payment commitments (IPC) with regard to resolution funds of EUR -14 million; partially offset by
- a decrease of EUR 7 million of the deduction of Defined Contribution pension plan assets due to the evolution of the plan assets and the discount rate.
- note that the deduction for goodwill and the prudential filter for regulatory Additional Valuation Adjustments remained stable.

Note that the significant and non-significant investments in own funds instruments of financial entities and the stock of not recognized deferred tax assets remain below the thresholds for deduction of the regulatory own funds and are included in the credit risk exposure amount.



Tier 1 capital amounted to EUR 11,219 million, compared with EUR 11,155 million at the end of 2021, the increase of EUR +64 million is closely related to the increase in CET 1 capital. The Tier 1 capital includes the additional Tier 1 issue of EUR 500 million (nominal value) dated February 2018.

Tier 2 capital decreased to EUR 1,632 million compared with EUR 1,752 million at the end of 2021. The decrease of EUR -120 million was mainly related to the decrease of EUR -160 million of the regulatory value of existing Tier 2 capital instruments, partially offset by the increase related to the higher excess of provisions in comparison to expected losses for IRB portfolios due to methodological changes (EUR +37 million).

At the end of 2022, total regulatory own funds amounted to EUR 12,851 million, compared with EUR 12,907 million at the end of 2021.



The composition of capital is detailed further in the Risk report annex (Tables CC1 and CC2).



The main characteristics of the additional Tier 1 and Tier 2 instruments are detailed further in the Risk report annex (Table CCA).



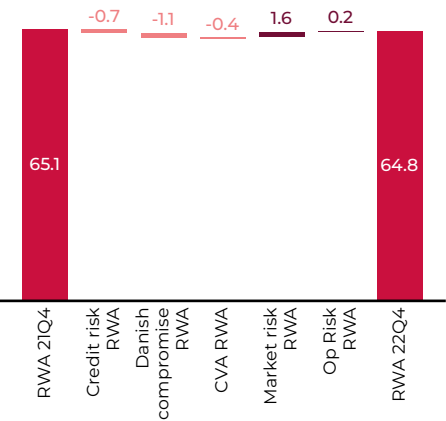
For more information on regulatory own funds on a consolidated level, please refer to the capital management section of the Annual Report.

## III.2. Capital requirements by type of risk

Total Risk Weighted Assets (RWA) includes risk-weighted exposures for credit risk including counterparty credit risk, CVA risk, market risk and operational risk. Each of the underlying risks is detailed elsewhere on in this report (section IV, V & VII). The risk exposure amount also stems from the Danish Compromise, whereby the capital instruments issued by Belfius Insurance and held by Belfius Bank are included in the RWA via a weighting of 370%.

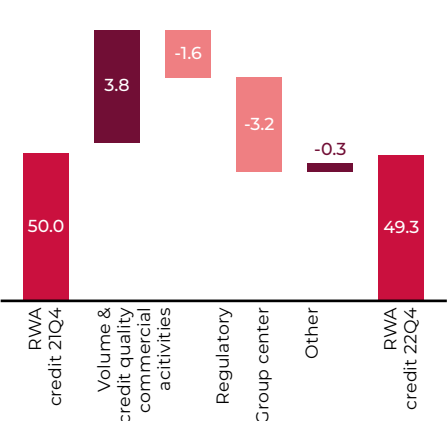
RWA evolution by type of risk

In EUR Bn



Drivers RWA credit

In EUR Bn



At the end of 2022, Belfius RWA amounted to EUR 64,796 million, an decrease of EUR -299 million compared with EUR 65,095 million at the end of 2021.



At the end of 2022, Belfius RWA amounted to EUR 64,796 million, an decrease of EUR -299 million compared with EUR 65,095 million at the end of 2021.

The credit risk exposure amount including counterparty credit risk decreased by EUR -727 million to EUR 49,271 million due to:

- a growth in commercial activities (EUR +3.8 billion), particularly in the Corporate segment;
- a positive regulatory impact (EUR 1.6 billion), following the removal of the NBB macro-prudential add-on on mortgages replaced by a sectorial systemic risk capital buffer (EUR 2.4 billion), partially offset by the increase in internal model updates (EUR 0.8 billion); a decrease on Group Center RWA (EUR -3.2 billion) thanks to:
  - market risk parameters, as rising interest rates positively affects some uncollateralized derivatives exposures as well as the portfolio hedge assets. The UK real rate evolution also has a direct impact on inflation linked bonds exposures.
  - management actions leading to the de-risking of specific positions.

The RWA for the Danish Compromise decreased by EUR -1,066 million to EUR 8,557 million, as the equity value of Belfius Insurance is negatively affected by the decreased OCI reserves stemming from higher interest rates and decreases in the stock markets compared to 2021.

The CVA RWA decreased by EUR -359 million to EUR 321 million thanks to increasing interest rates and shortening of some derivatives.

The market risk RWA increased (EUR +1,618 million) by higher market volatility leading to a bigger HVaR/SVaR and some backtesting exceedings in the first half of the year. The increase in volatility was further enhanced by an incoherent behaviour of the VaR Model in a context of rapidly increasing rates. A VaR model change was approved in Q4 2022, resulting in a drop in RWA levels

Operational RWA increased (EUR +235 million) over the period, in line with the increase in income.



Further details are provided in the Risk report annex (Tables OV1, INS1, INS2, MR1, MR2, MR3, CCR2, ORI).

## III.3. Capital adequacy

### III.3.1. Belfius Bank

#### III.3.1.1. Solvency ratios for Belfius Bank on consolidated level

At the end of 2022, the CET 1-capital ratio amounted to 16.55%, an increase of +17 bps compared with the end of 2021. Note that this transitional CET 1-capital ratio takes into account the transitional IFRS 9 measures with impacts on prudential capital and risk exposure for +36 bps, a decrease by 15 bps compared with the end of 2021.

The increase in CET 1-capital ratio is the result of positive effects from higher CET 1 capital (+10 bps) and the positive effects from the lower total risk exposure (+7 bps). We refer to the comments above for further information.

At the end of 2022, Tier 1 capital ratio amounted to 17.31%, an increase of +17 bps compared with the end of 2021.

The total capital ratio amounted to 19.83%, remaining stable compared with the end of 2021.

Note that without the application of the IFRS 9 transitional measures, the fully loaded CET 1-capital ratio would amount to 16.19%, the Tier 1 capital ratio would amount to 16.95% and the Total Capital ratio would decrease by -36 bps amounting to 19.47%.

Applying the “Danish Compromise” compared with the deduction method for capital instruments of Belfius Insurance (equity deducted from CET 1 capital and subordinated debt instruments deducted from Tier 2 capital) would have the following impacts: an increase of +38 bps of the CET 1-capital ratio and a decrease of -17 bps of the Total Capital ratio.

Further details are provided in the Risk report annex (Table IFRS9).





### III.3.1.2. Leverage ratios on consolidated level

The leverage requirement is as from June 2021, a binding CRR 2 requirement. The CRR 2 integrated the leverage ratio in the Pillar I requirement and set the level of minimum requirement at 3%, and a surcharge has also been fixed by the EBA for G-SIB with a mandate to analyse whether some O-SIB (like Belfius) should be given the same or similar additional buffer requirement.

The leverage ratio is defined as the Tier 1 capital (the numerator) divided by the exposure measure (the denominator), computed as balance sheet assets after certain restatements on derivatives, securities financing transactions, off-balance-sheet items and prudential adjustments (for items already deducted from the numerator).

In order to be consistent with the calculation of the regulatory Tier 1 capital (numerator), the calculation of the leverage exposure (denominator) is based on the prudential consolidation perimeter, where Belfius Insurance is accounted for using the equity method.

Furthermore, the application of transitional measures for IFRS 9 provisions from December 2020 has an impact on the numerator (cf. above) and the denominator, the Covid-19 related regulatory measure to temporarily exclude certain exposures to central banks in December 2021 (impacting the denominator) ended in April 2022.

The risk of excessive leverage is managed through the Financial Plan process. The leverage ratio as defined in the CRR 2 is further an integrated part of the Risk Appetite Framework for which internal limits and targets are set and which is validated by the Board of Directors. The risk of excessive leverage is included in the Belfius reporting and control processes and is monitored regularly. Any important deviation and/or prudential changes in the leverage ratio is reported to the appropriate committees for management actions.

At the end of 2022, the Belfius transitional leverage ratio stood at 6.26%, a decrease of -87 bps compared with the end of 2021 and well above the minimum pillar 1 requirement of 3%.

The decrease is the result of positive effects (+4 bps) from the higher level of Tier 1 capital (see above), offset by the negative effect (-91 bps) from the increased total leverage exposure measure, due to the end of the temporary regulatory measure to exclude certain exposures to central banks (-120 bps on reference date December 2021), and further mainly from higher volumes of loans to corporates and mortgage loans, partially offset by a decrease in securities financing transaction exposures due to decreased off-balance commitments, the decrease of derivatives exposures due to rising interest rates (reducing LT uncollateralized derivatives) and derivatives add-ons due to a refinement of the calculation methodology.

Please note that the fully phased-in leverage ratio, excluding the transitional measures for IFRS 9 provisions would decrease by -11 bps.

Further details are provided in the Risk report annex (Tables LRSum LRSpl LRCom).



### III.3.1.3. Minimum requirement for own funds and eligible liabilities

On 22 December 2022, the NBB notified Belfius that going forward it has to execute the SRB MREL instruction regarding the minimum requirement own funds and eligible liabilities at the consolidated level of Belfius Bank under BRRD2. For Belfius Bank, the MREL requirement on a consolidated basis is set at 23.23% of Total Risk Exposure Amount (TREA) and at 6.87% of Leverage Ratio Exposure (LRE).

Belfius Bank must meet the target no later than 1 January 2024 and must provide for a linear build-up of equity and eligible liabilities towards the requirement. The SRB also determined an intermediate target of 22.37% of TREA and 6.84% of LRE which had to be met by 1 January 2022.

The SRB MREL instruction also defines a subordination requirement: Belfius Bank must meet at least 15.83% of TREA and 6.87% of LRE by means of subordinated MREL. Own funds used to meet the combined buffer requirement (CBR) set out in Directive 2013/36/EU (at 4.35% of TREA for Belfius currently) are not eligible to meet the requirements expressed in TREA. Belfius Bank must comply with this subordination requirement by 1 January 2024, subject to an intermediate target of 15.25% of TREA and 6.84% of LRE by 1 January 2022.

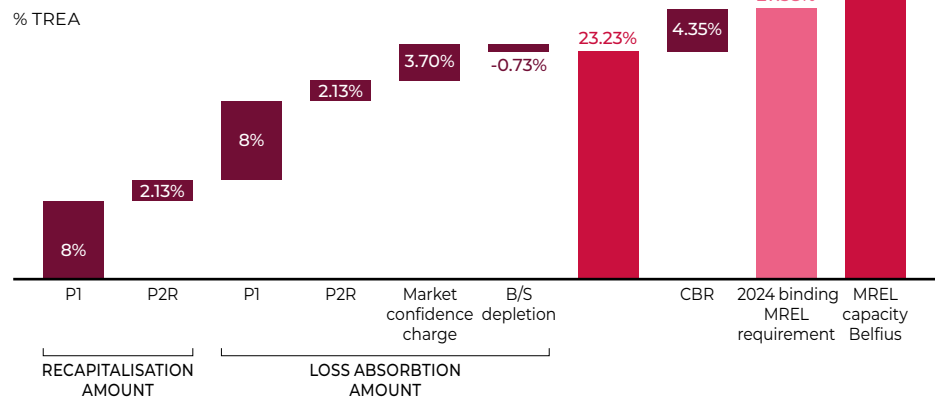
Belfius already meets its target BRRD2 MREL requirements end 2022. Indeed, expressed in TREA, Belfius MREL realised of EUR 18.4 billion amounts 28.4% to be compared with 27.58% of the 2024 final binding target (including current CBR).





In the same way, Belfius MREL subordination of EUR 15.1 billion amounts 23.2% of TREA to be compared with 20.18% of the 2024 final binding target (based on 8% TLOF, CBR included). Expressed in LRE, Belfius MREL subordination of 8.4% stands in excess of 6.87% MREL final requirement.

### SRB MREL Requirements



Further details are provided in the Risk report annex (Tables KM2, TLAC1 and TLAC3).

### III.3.2. Belfius Insurance

For more information regarding the Belfius Insurance solvency, we refer to the chapter Capital Management of Belfius' Management report

For more information regarding the solvency position of Belfius Insurance, we refer to the chapters Risk Management of the Annual Report 2022 of Belfius Insurance, Risk Management and the Belfius' Management report (see dedicated section on insurance risks).

### III.3.3. Internal capital adequacy

#### III.3.3.1. Risk appetite

Risk appetite is the level of risk that an institution is prepared to take given the expectations of the main stakeholders (shareholders, creditors, regulators, rating agencies, customers, employees...), in order to ensure the safeguard of a sound risk and financial profile. This risk appetite is defined by the Board of Directors, on proposals from the Management Board. The Risk Department prepares the Management Board's proposals and the Board of Directors' decisions, and also sets the rules and the framework for implementation of those rules.

Based on a holistic approach, risk appetite is a central reference point:

- for guiding strategy and planning;
- for framing performance in terms of growth and value creation;
- for facilitating day-to-day operating and commercial decisions.

The Bank's risk appetite consists of a series of quantitative elements (target Key Risk Indicators or KRI's) and qualitative elements (statements) that are designed to express the risk levels and types that are not acceptable, that are tolerated and targeted in order to achieve business strategy. They reflect also the risk culture (eg ethics, tax, compliance, fraud, ...). The quantitative framework is based on a mix of accounting ratios (gearing), regulatory ratios (solvency, liquidity), economic ratios (economic capital, earnings at risk) and internal KRIs. The different metrics cover a wide range of risks (credit risks, solvency, liquidity, market risks, concentration risks, non-financial risks, compliance risks, model risks, ESG risks ...).

Limits have been defined on each of these ratios with different zones, which lead to different governance and measures in case of breach. They are reviewed and updated each year by the competent bodies. The Risk and Finance departments are responsible for monitoring these ratios and, if there are discrepancies, for proposing measures to the Management Board to ensure the limits are met.

The RAF is deployed in the main subsidiaries, thereby allowing for increased consistency throughout the group and close monitoring of the risk profile by the Conglomerate Monitoring Committee



Next to the quantitative part, qualitative statements consisting of guiding rules aiming to define the risk appetite that cannot be expressed through quantitative ratios are imbedded in the RAF.

As each year, the Risk Appetite Framework (RAF) has been updated and approved by the Board of Directors in December 2022.

### III.3.3.2. Economic Capital

#### III.3.3.2.1. Definition

Economic capital is defined as the potential deviation of Belfius' economic value from its expected economic value at a given confidence interval and time horizon. The confidence threshold (99.94%) chosen for scenarios involving losses in value corresponds to the Bank's targeted senior unsecured debt rating at a horizon of one year (A rating for 2022).

The economic capital quantification process is organised in three phases: identifying the risks (risk inventory definition and cartography, reviewed on an annual basis, in collaboration with the various business lines), assessing (measuring) the risks (mainly on the basis of statistical methods and/or scenarios) and aggregating the risks based on an inter-risks correlation matrix.

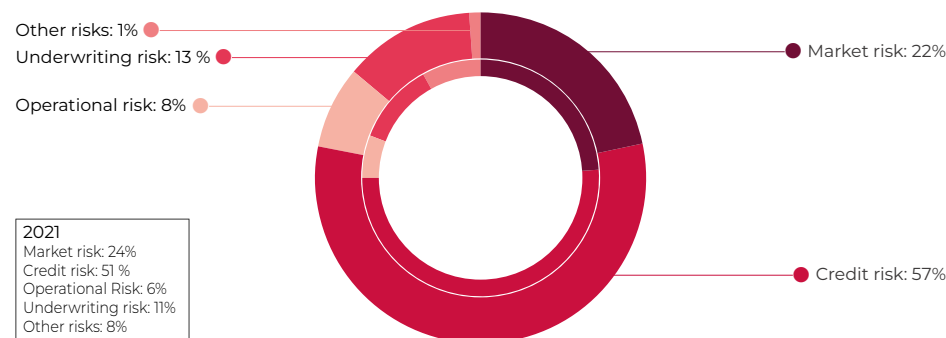
Most risks are capitalised based on measuring the unexpected loss. However, if alternative management techniques (limits, other buffers than capital, governance) are considered more appropriate to cover them, some risks are not capitalised.

The economic capital is central in the context of Belfius' risk appetite and is also complementary to the Stress Tests framework for Internal Capital Adequacy Assessment Process (ICAAP) purposes. It is also involved in pricing as well as in the assessment of Belfius' profitability.

#### III.3.3.2.2. Economic Capital Adequacy

The Management Board is responsible for managing the capital level and allocation process and has authority in all matters relating to economic capital, informed by output of various economic capital models and monitoring of ratios, limits and triggers (regulatory and economic levels).

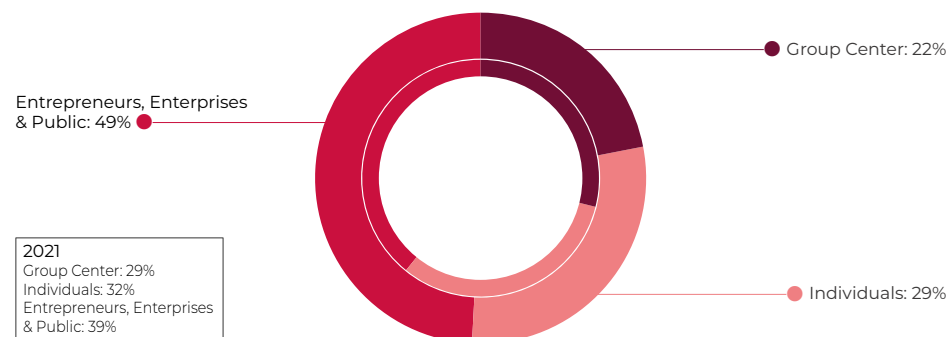
#### Breakdown of economic capital by type of risk (Outside 2022 – Inside 2021)



Belfius economic capital was EUR 5,745 million at the end of December 2022 (against EUR 5,709 million at the end of 2021).

Credit risk represented approximately 57% of the economic capital and was the main contributor; market risk (including interest rate risk, foreign-exchange rate risk, spread risk and equity risk) was 22%, underwriting risk 13%, operational risk 8% and other risks (prepayment, funding, etc.) 1%.

#### Breakdown of economic capital by business line (Outside 2022 – Inside 2021)



By business line, the economic capital was allocated as follows: Individuals and Entrepreneurs, Enterprises & Public represented 29% and 49% respectively of Belfius' economic capital; the balance was made up of 22% allocated to the Group Center (mainly for the



Belfius' general balance sheet management in terms of interest and funding risks, including the bonds investment portfolios and for the portfolios of derivatives and run off credit guarantees).

### III.3.3.2.3. Stress Tests

Stress tests are part of the ICAAP and are performed annually. The main objective of the stress tests is to determine the bank's ability to withstand adverse scenario's and to highlight the main vulnerabilities of solvency, profitability and liquidity positions of Belfius. Each year, stress test scenario's are reviewed and are designed in a way to make sure they remain pertinent and that they reflect the current and potentially upcoming threats.

In 2022, the Bank has developed a set of alternative and severe macroeconomic scenarios designed to anticipate different possible macroeconomic evolution for the next 5 years taking into account the specific context of the war in Ukraine (a.o. stagflation, higher interest rates resulting in inverted yield curve, crash of the stock markets, rising credit spreads and uncertainty and higher IR environment affecting customer behaviour.), and to simulate how Belfius might be affected under these circumstances. Moreover, three power outage scenario's (triggering liquidity outflows) have been developed by the Non-Financial Risk team in order to account for the new threats to business continuity.

These different stress test scenario's and their combinations (such as stagflation scenario occurring together with the power outage) measure the potential deviations from the "base case" Financial Plan and from the Risk Appetite targets set by the management in terms of solvency, liquidity and profitability.

Overall, Belfius showed good resilience to financial and liquidity stress under these stress test scenario's, decrease of the loans production limiting capital charge increase and solvency impact for Belfius. These stress test results have been submitted to the Management Board as well as to the Board of Directors of Belfius. Mitigating actions and recommendations have been proposed based on their results.

No EBA EU-wide stress test took place in 2022 (as they're conducted every two years, the current one successfully launched on January 31, 2023), however the ECB has carried out a climate risk stress test of significant institutions. This first Climate Stress Test exercise had the objectives of

- assessing the banks' climate risk stress testing capabilities and data availability
- stock-take and benchmark the sensitivity of banks' income to transition risk and their exposure to carbon intensive industries
- run bottom up projections in order to evaluate the Banks' vulnerabilities to climate related and environmental events. The stress test exercise was concluded by a detailed report published by ECB.

This pioneering exercise unveiling many challenges led to globally satisfactory results for Belfius, relative to the peers.

### III.3.3.2.4. Recovery plan

An update of Belfius Recovery Plan has been submitted to the ECB during the second half of 2022. This plan provides a set of recovery measures that would be taken to restore the Bank's long-term viability in the event of a significant deterioration of the macro-economic environment.

In 2022, the focus was put on developing of three extreme reverse stress scenarios (additional liquidity stress scenario was added compared to last year) resulting in the bank reaching its near default point in a short timeframe: a system-wide scenario (severe recession accompanied by high inflation and unemployment, crash of stock exchange and high funding spreads); idiosyncratic scenario (Belfius primarily hit though its UK and US exposures) and liquidity stress scenario (ransomware attack on servers leading to the bank run). The recovery plan demonstrates that Belfius benefits from sufficient recovery options. In extreme scenarios, the bank has enough measures at its disposal to restore solvency and LCR liquidity ratios within one year.

### III.3.3.2.5. Resolution

Belfius cooperates with the Single Resolution Board to prepare resolution plans, in particular by providing them with all information conform the requirements. Workshops with the SRB and their communications (working priority letters) confirmed that Belfius has made significant progress in 2022, in terms of quality, completeness and timely deliveries and that no major impediments will remain by the end of 2023.

Belfius successfully organised a resolution dry-run in December 2022. The purpose was to test the governance, and communication as well as the IT capacity to produce the bail-in datapoints, as bail-in is the preferred resolution strategy.

# IV. Credit Risk

After initial recovery from the Covid crisis, the geopolitical and economic environment was severely perturbed by the Russian invasion in Ukraine in February 2022, resulting in high volatility on the commodities markets, surge in energy and price inflation and tighter monetary policy. Some Belgian industrial companies, especially in the energy-intensive sectors, had reduced production or even closed down production sites. Despite the worries for a (mild) recession, the Belgian economy, however, performed better than expected in the third and fourth quarter of 2022 with low but positive growth (0.1% in Q4 2022). In the course of 2023 the economic activity is expected to recover.

The Belfius loan portfolios - under continuous and strengthened monitoring process - showed a strong resilience with few signs of deteriorating credit quality, a limited bankruptcy and default inflow and a slightly decreasing NPL ratio. However certain early warning indicators for small business (payments arrears, utilization of credit lines) have deteriorated during the second half of 2022 requiring further close monitoring.

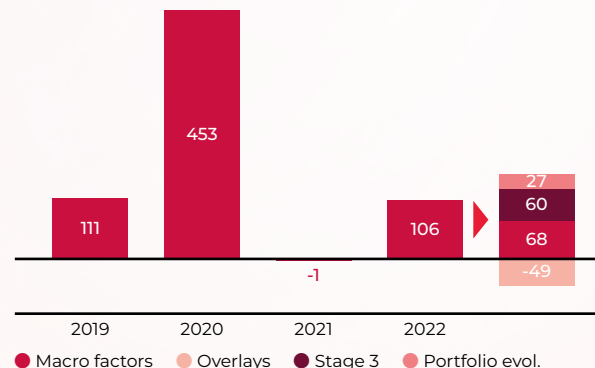
Within these a.o. challenging macroeconomic conditions and uncertain perspectives, the 2022 Cost of Risk amounts to EUR 106 million and is primarily impacted by the update of the macroeconomic factors (EUR -68 million), slightly offset by reversals following the reassessment of the Overlay for vulnerable exposures (EUR +49 million). The impact of the specific provisions for loans in default (stage 3) remains extremely limited with an amount EUR -60 million for the full year.

The outstanding Overlay at the end of 2022 increased towards a level of EUR 235 million, compared to EUR 216 million at the end of 2021.

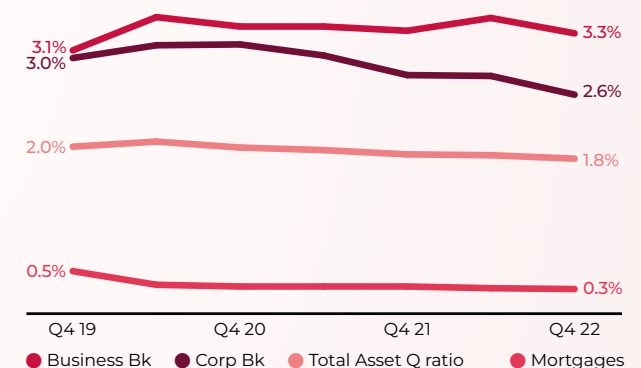
## Definition

Credit risk is defined as, on the one hand, the possibility that a bank's borrower or counterparty will fail to meet its obligations (in the form of non-payment or non-performance) in accordance with the agreed terms, also called the payment default risk, and on the other hand, the possibility that the bank will not be able to recover its outstanding debt by means of the collateral that is linked to the debt, i.e. the risk of non-recovery.

## Cost of Risk



## NPL ratios





## IV.1. Fundamentals of credit risk in 2022

While at the start of 2022 the economy has still been impacted by the second-round Covid-19 effects, over the course of the year, the pandemic evolved in a positive way with fewer (registered) contaminations, hospital admissions and intensive care interventions, pushing the residual hygienic and economic risks to the background. Covid-related payment deferral schemes have all matured without a significant credit risk impact on Belfius' portfolios. Indeed more than 95% of the loans show a regular repayment scheme. With the full relaxation of Covid measures in China however, vigilance is still warranted for the occurrence of new Covid-19 variants, and a potential return to a certain level of protective measures in the future.

After several years of geopolitical tension between Ukraine and Russia, the conflict evolved into a Russian invasion and a large-scale war on the Ukrainian territory. In the first half of 2022, this evolution has created a massive uncertainty in the worldwide political and economic environment, with immediate effects on financial markets, interest, exchange rates and price increases. Economic activity was further hampered by different economic sanctions. Especially for the European market, the impact on commodities, food and energy prices was very significant.

These events caused a slowdown of the post-Covid economic recovery through disruptions of the supply chains causing shortages and production delays, scarcity of resources, raw materials and labour capacity and further putting pressure on the activity level in several industries. Increasing prices of intermediate products and materials, and booming energy prices have led to a peaking inflation, that translated into wage inflation in Belgium though the automatic indexation mechanisms. In this context, the competitive positioning of Belgian companies could suffer, certainly in the short run.

With energy prices peaking as never before in the autumn (reinforcing inflationary pressure), the Belgian financial sector decided to take mitigating measures for households with a new (conditional) payment deferral scheme for vulnerable mortgage clients. Additionally, the government decided on a basic "Energy package" providing financial

support in Q4 to bear the increased energy prices (extended for Q1 2023). While safeguarding the households of financial difficulties, these initiatives are putting additional and increasing pressure on public spending deficits (evolving to around 6% of Belgian GDP), in the absence of sufficient structural measures in the past.

The evolution of the non-performing loans portfolio still looks reassuring, but some early warning indicators (especially payment arrears and utilization level of credit lines) tend to increase towards pre-Covid levels and require further monitoring.

### IV.1.1. Cost of Risk in 2022

#### IV.1.1.1. IFRS 9 impairment methodology at Belfius

Reference is made to the Appendix IX.1.4. of the Risk Report 2019 for a full description of the Belfius process to compute IFRS 9 expected credit losses (ECL).

The basic principles of the process to compute IFRS 9 expected credit losses (ECL) are as follows:

Belfius Bank and its subsidiaries recognise loss allowances for ECL on financial instruments at amortized cost or at fair value through Other Comprehensive Income (OCI).

ECL are measured through a loss allowance that depends on the financial instrument's status:

- for performing exposures (i.e. instruments that have not incurred a significant increase in credit risk since origination), referred to as stage 1, a 12-month ECL is calculated;
- for underperforming exposures (i.e. instruments that have incurred a significant increase in credit risk since origination), referred to as stage 2, Lifetime ECL are calculated;
- non-performing exposures (i.e. exposures that become credit-impaired), are classified in stage 3 and the ECL reflect the remaining exposure after a best-estimate of future recoveries.

ECL are probability-weighted estimates of credit losses. This is expressed as the present value of cash shortfalls i.e. the difference between the cash flows that are due to the entity in accordance with the contract and the cash flows that the entity expects to receive.



ECL calculations use probability of default (PD) and loss given default (LGD) parameters. Point-in-time PDs are used that inter alia incorporate forward-looking macroeconomic information through the use of four different macroeconomic scenarios. These scenarios are built upon internal information delivered by the Belfius Research department, who uses external and internal information to generate a forecast “neutral” scenario of relevant economic variables along with a representative range of other possible forecast scenarios. The external information includes economic data and forecasts published by governmental bodies and monetary authorities.

Belfius assigns probabilities to the four forecast scenarios (neutral, optimistic, pessimistic and stress) and makes the link between macroeconomic variables and credit risk and credit losses through identified and documented relationships between key drivers of credit risk and credit losses for each portfolio of financial instruments on the one hand and statistical analysis of historical data on the other hand.

Adjustments to the impairment methodology: further insights related to Covid-19 and risks related to energy, inflation and the Russia/Ukraine conflict

In the context of Covid-19, Belfius' basic principles for ECL computations have remained fundamentally unchanged, however some adjustments to the aforementioned approach were required in order to maintain an adequate coverage for potential risks.

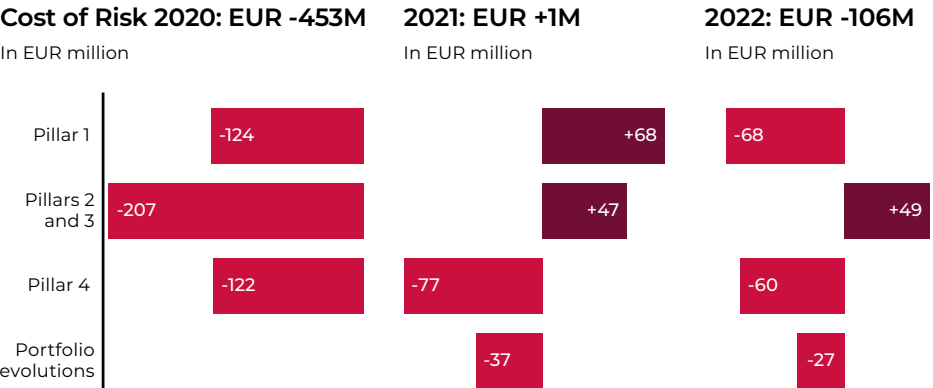
In 2022, these adjustments remained in place. The adjustments integrated the Covid-19 risks and were extended to the emerging risks related to the increased inflation, rising energy prices and the war in Ukraine:

- Expected credit loss calculations are still based on a long-term average (initially 2009-2022) for all the relevant macroeconomic factors, with a backward and a forward-looking approach. In 2022, the provisions for 2023-2024 were added in this through-the-cycle approach.
- To calculate ECL, Belfius still defines four probability weighted forward-looking scenarios each with their own macroeconomic parameters to build optimistic, neutral, pessimistic and stress cases. Yet, the scenarios have been adapted to the macroeconomic environment.
- The results of the portfolio analysis and monitoring processes with respect to the increased inflation, rising energy prices and the war in Ukraine gained importance in the provisioning process.

Given that ECL estimations are complex and to a certain extent judgmental, the aforementioned mechanical approach is completed by management judgment through “management call” layers as authorised by the IFRS 9 accounting references. These layers can be positive or negative and aim to include any elements entering in the ECL calculation which have not been taken into account by the mechanical computation on an individual level or a (sub)portfolio level. These layers have been reinforced to account for the main risk pockets in the Belfius' portfolio.

IV.1.1.2. Drivers of the cost of risk in 2022

Since the start of Covid-19, the Cost of Risk (on consolidated level, Belfius Bank and Insurance) is built according to a waterfall principle:



- The provisions for stage 1 and 2 are calculated in a mechanical mode, based on a view on the macroeconomic conditions (past and future) (pillar 1);
- If Belfius considers that certain risk pockets, defined in terms of sectors or groups of companies, are not sufficiently covered by the mechanical provisions, certain expert overlays are added (pillar 2);
- If, additionally, expert analyses pointing to counterparts with a potentially increased credit risk, that were not detected by the mechanical approach and not yet classified as 'unlikely to pay', the provisions constituted could be insufficient. For these cases, an individual management adjustment on the expected credit loss in stage 2 is added (pillar 3);
- For counterparts in a default status (stage 3), the normal impairment process is run and specific provisions are calculated and booked (pillar 4). Provision levels are based on an individual assessment of exposure and collateral.



The 2022 Cost of Risk (on consolidated level) amounts to EUR -106 million and is composed of EUR -68 million allowances due to the update of the macroeconomic factors, EUR +49 million reversals following the reassessment of the Overlay for vulnerable exposures, EUR -60 million specific provisions for loans in default and EUR -27 million allowances for portfolio evolutions. .

The release of EUR 49 million on the Overlay for Vulnerable Exposures was essentially done in 1H 2022 for the amount of EUR 63 million. This reversal was composed of the allowance of EUR 32 million for new impacted sectors and risk pockets, and the reversal of EUR 95 million on Covid-19 related exposures. In 2H 2022, additional allowance of EUR 14 million has been registered.

The Cost of risk of Belfius Bank represented EUR -91 million in 2022, while that of Belfius Insurance EUR -14.5 million.

It is to be recalled that stage 1 and 2 provisions constitute protection against expected credit losses on files that could enter into a default status. To what extent these stage 1 and 2 provisions will be transformed into stage 3 provisions, covering incurred credit losses on defaulted loans, remains subject to uncertainty. If the macroeconomic environment improves to the extent that the anticipated transitions to default do not occur, part of the impairments will be reversed over time.

#### Pillar 1: macroeconomic factors used in 2022

- The macroeconomic factors were updated in line with Belfius Research expectations. While in the first half of 2022, the view on economic development was rather positive, the macroeconomic perspectives were adjusted downwards in the second year half. The outcome of the Russian Ukraine conflict remains highly unpredictable, both in terms of timing and of consequences. Global economy is suffering from this uncertainty, as it is the case for Belgium
- Belfius' neutral scenario includes a Belgian GDP growth of 2.8% for 2022, followed by only a 0.1% growth rate in 2023. Under this neutral scenario, tension on the energy markets is expected to continue: energy prices are expected to remain high throughout the projection period, high inflation keeps impacting consumption levels, uncertainty and high costs have negative impact on business investment, reduced competitiveness and global slowdown weighs on exports.
- Inflation is expected to remain very high in 2022 (10.4%) due to high energy and food prices and second-round effects. Energy prices can gradually decline in 2023, while core inflation remains high.

- The unemployment rate for 2022 in the neutral scenario has been revised upwards from 7.9% towards 9.3%, and is expected to slightly decrease but remain at a high level in the upcoming years. As in 2020 and 2021, the 2022 unemployment figure includes the exceptional temporary unemployment that is expected to be, to a certain extent, converted into a structural unemployment.

#### Macro economic Scenarios IFRS 9

	As of end 2021		As of 2Q 2022		As of end 2022		
	2021	2022	2022	2023	2022	2023	2024
<b>GDP (% Y-O-Y)</b>							
Belgium	5.9	3.2	2.2	1.6	2.8	0.1	1.6
Eurozone	4.8	4.4	2.8	2.0	3.0	0.0	1.5
United States	5.8	4.0	3.7	2.5	1.6	1.0	1.2
<b>CPI (% Y-O-Y)</b>							
Belgium	2.2	2.0	8.0	2.3	10.4	6.1	3.0
<b>UNEMPLOYMENT (%)</b>							
Belgium	7.9	6.6	7.9	7.9	9.3	8.8	8.3
Eurozone	9.1	8.5	8.9	8.8	9.9	8.5	7.1

Notes:

- Figures might differ from those presented in the section dedicated to the macro-economic environment as IFRS 9 expected credit losses are performed during the quarter.
- Unemployment figures include the exceptional temporary unemployment.





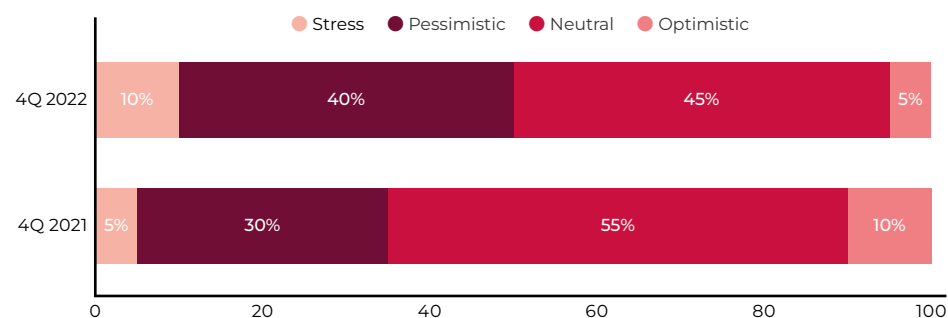
- The neutral case is completed with an optimistic, a pessimistic and a stress scenario. The table below illustrates the Belgian GDP Growth assumptions, as of end 2022, under the four scenarios.

#### GDP BE (% YoY)

	As of end 2021		As of 2Q 2022		As of end 2022		
	2021	2022	2022	2023	2022	2023	2024
<b>SCENARIOS</b>							
Optimistic	6.5	4.0	3.0	1.8	3.4	0.7	2.2
Neutral	5.9	3.2	2.2	1.6	2.8	0.1	1.6
Pessimistic	4.2	1.3	1.2	1.2	1.7	(1.6)	0.5
Stress	2.0	1.4	(0.1)	(2.7)	1.2	(1.6)	(0.1)

- The scenario weights have been changed by shifting the weight to the negative-oriented scenario's: pessimistic at 40% (versus 30% by end 2021), stress at 10% (versus 5% in by end 2021), neutral at 45% (versus 55% by end 2021) and optimistic at 5% (versus 10% by end 2021).
- Consequently, significant part of the 2022 provisioning is materialized through the **Pillar 1 (Macroeconomic Factors)** of the Overlay. These macroeconomic factors and scenarios lead to a cost of risk impact of EUR -68 million, counterbalancing the positive contribution in 2021.

#### Scenario weights (in %)



#### Sensitivity of the impairment stock stage 1 & 2 to changes in scenario weights

The following table provides an overview of the stage 1 & 2 impairments sensitivity to the weight of macroeconomic scenarios. The most relevant macroeconomic factors are GDP and Unemployment assuming the current IFRS-9 method is maintained. Note that the sensitivity is not linear and cannot be simply extrapolated.

	What if 85% optimistic <sup>(1)</sup>	Weighted average scenario 4Q22	What if 85% pessimistic <sup>(1)</sup>	What if 85% stress <sup>(1)</sup>
(In millions of EUR)				
Impairment stock stage 1&2	795	932	987	1.057
% change vs WA scenario	-15%	0%	6%	13%
		Optimistic 5% Neutral 45% Pessimistic 40% Stress 10%		

(1) 5% on each of the 3 other scenarios.

#### Pillar 2 and 3: overlays to cover for certain risk pockets

The pillar 1 mechanical calculations are completed with expert Overlays. These Overlays are designed to result, overall, in best estimate total coverage of ECL in some specifically identified risk pockets of vulnerable exposures (defined in terms of sectors, groups of companies or individual exposures) when the credit risk is estimated (potentially) insufficiently covered by the mechanical provisions.

Concretely, one or more IFRS 9 parameters have been stressed when computing the ECL. For mortgages a stressed LGD value is applied, while for companies vulnerable to Covid or recession risk, an add-on has been applied on the mechanically computed expected credit loss, reflecting the characteristic of the risk pocket. The add-ons correspond to an increased expected credit loss, equivalent to a 1 to 2 notch rating downgrade. This approach feeds the formal quarterly impairment process and results into shifts of individual files or risk pockets from stage 1 to 2 and into the application of the Expected Credit Loss levels that are deemed adequate to cover the increased credit risk.

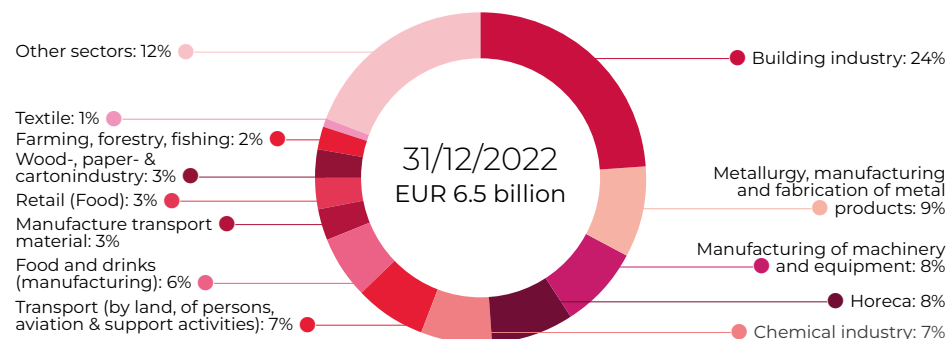


With respect to the **Pillars 2 and 3**, that cover for **risk pockets of Vulnerable Exposures**, Belfius thoroughly reviewed and rebalanced these Overlays in 2022 by integrating the emerging risks related to energy and inflation and the Russia/Ukraine conflict, while reducing the importance of the Covid-19 impacts :

- The exposures on customers not presenting further increased risks due to Covid-19 have been removed from the Overlay;
- The exposures representing a residual impact linked to the Covid-19 pandemic and that are additionally hit by the new crisis effects are maintained;
- The exposures to customers that show a potential vulnerability to the new-crisis effects are added to Overlay:
  - For the segment of Individuals (Mortgages/Consumer loans), the scope and its underlying drivers have shifted from an income-loss focus towards a cost and inflation focus (as a high ratio energy / net available income & low savings buffer).
  - For the segment of Entrepreneurs & Enterprises, demand shocks driven by Covid were gradually replaced by cost and supply shocks in the identification of the economic sectors that show a more than average vulnerability to recession effects. During the year, it became also clear that small businesses, in particular horeca, bakeries, retail trade, small construction, and manufacturing related companies, are suffering heavily from the energy and wage shock. The Overlay was reassessed accordingly.
- For Overlays linked to individual names identified as having a potential low resilience, a line-by-line review was performed. This analysis allowed to remove files associated with positive evolutions such as recovery of financial results, strengthened shareholder support to the company or obtaining additional collateral which reduces risks.

- Belfius' exposure towards these vulnerable sectors or counterparts is limited to 3.3% of the total portfolio and can be split as follows:

#### E&E overlay – Exposures by sector



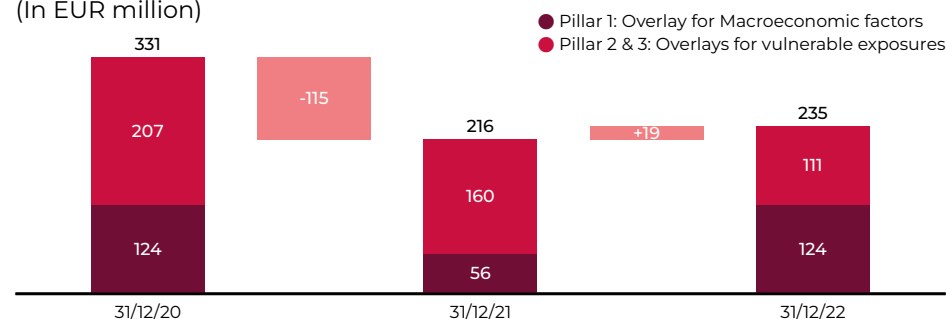
These adjustments of **Pillars 2 and 3** led to a provision release of EUR 49 million in 2022.

As a consequence, the **Overlay** outstanding increases towards a level of **EUR 235 million**, composed of:

- EUR 124 million for macroeconomic factors (vs EUR 56 million by end 2021)
- EUR 111 million for vulnerable exposures (vs EUR 160 million by end 2021).

#### Overlay

(In EUR million)



Following the adjustments in 2022, the Overlay, that is constituted by the pillars 1, 2 and 3, has been increased by EUR 19 million.

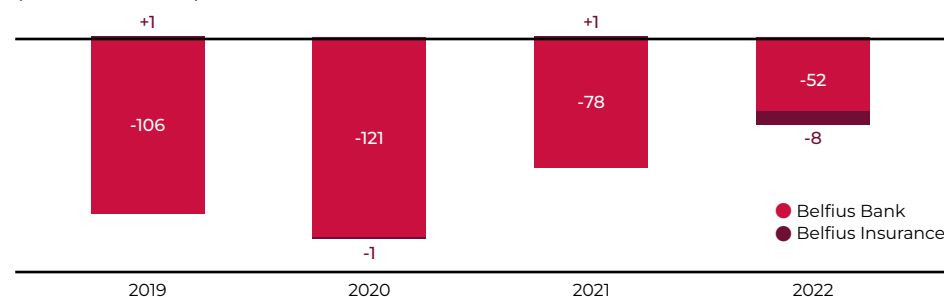


#### Pillar 4

Pillar 4 contains impairments for counterparts in default (stage 3). Belfius continues to apply its standard impairment process for non-performing exposures. Pillar 4 represents a 2022 cost of risk of EUR -60 million (EUR -52 million for Bank only), which is largely below the natural level of the Belfius portfolio.

#### Stage 3 component in the Cost of Risk

(In EUR million)



Combined with the standard portfolio effects (growing loan portfolio, portfolio shifts in and out...) for an amount of EUR -27 million, the 4 pillar approach leads to a Cost of Risk of EUR -106 million in 2022, reflecting the economic and societal recovery from the Covid-19 era, but also, keeping in mind the uncertainties related to the macroeconomic perspectives.

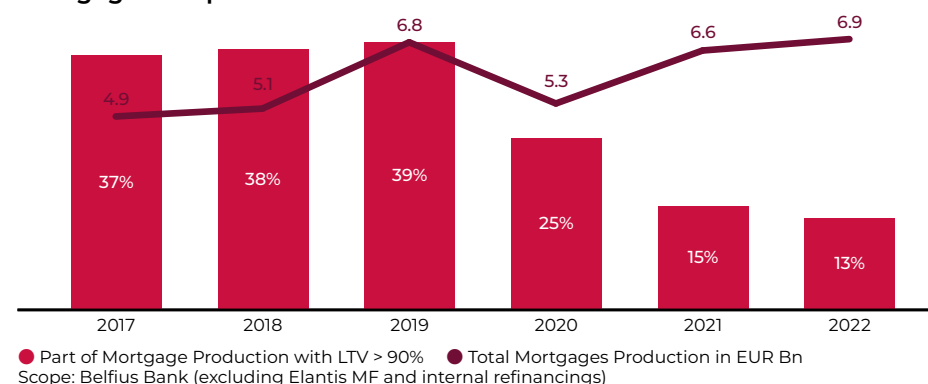
### IV.1.3. Evolution of the portfolio by segment

#### IV.1.3.1. Individuals

The overall mortgage lending activity in 2022 remained quite strong, slightly exceeding that of the previous year. However, the changing macroeconomic conditions have impacted the production of the second half of the year, with smaller number of mortgages being granted from July onwards due to reduced demand. The main factors behind this decrease were higher energy costs, inflation and rising interest rates. Overall, these evolutions resulted in the increase of Belfius' mortgage portfolio at the end of 2022 to a FEAD EUR 41.9 billion compared to EUR 39 billion at the end of 2021.

Belfius continued to implement the 2019 NBB measures on new mortgage loans. This resulted in a further decrease in new production with LTV>90% (from 15% last year to 13% in 2022). An increase in the share of new mortgages with DSTI>50%, especially in the second half of the year is observed, most likely due to rising interest rates, as well as a larger share of loans with longer maturities.

#### Mortgage loan production



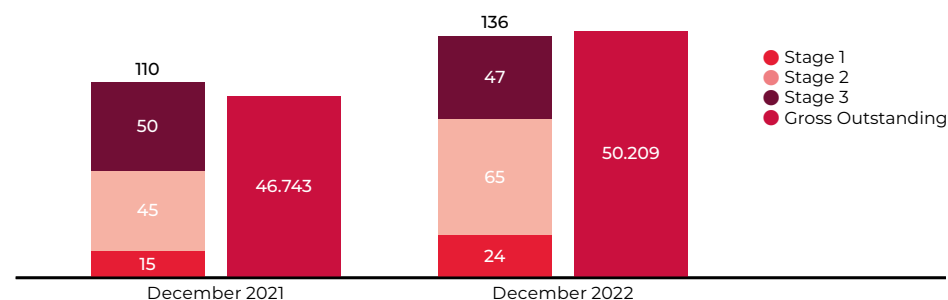
Throughout 2022, Belfius has closely monitored its mortgage portfolio for signs of deterioration due to energy costs. Analysis of transactional data (energy cost to available income) is combined with the monitoring of savings buffers, to track the share of the most vulnerable clients. The data captures the increase in energy costs, particularly in the first half of 2022, leading to more vulnerable clients (around 5% of outstanding credit). However, from June onward this impact has been significantly tempered by government interventions (e.g. reduced rates for lower income households, temporary VAT reduction on electricity bills, "Energy package"). As of October 2022, mortgage clients for whom these energy related measures were not sufficient could apply for a deferral of principal repayment scheme (Febelfin initiative). At the end of 2022, the amount of loans for which this deferral was requested remained below EUR 100 million. This has led to an increase in the mortgage forbore exposure in the last quarter of this year. The overall impact remains limited with a year-on-year increase of forbore mortgage loans by EUR 10 million to EUR 419 million at year end.



All in all, due to governmental policies aimed at countering higher energy prices and the partial indexation of wages, the impact of energy and inflation on Belfius' mortgage portfolio has so far been limited. The PD levels of this portfolio have remained stable at around 0.50% (vs 0.51% in 2021). The NPL ratio further declined to 0.29%, compared to 0.32% in 2021.

### Impairments & gross outstandings in Individuals segment

In EUR million



Similar to mortgages, consumer credits production has also been lower in the second half of this year. The monitoring of these loans has focused on traditional early warning indicators such use of credit lines & credit cards and the appearance of short-term arrears. Some of these indicators do exhibit an upward trend, but remain at acceptable levels and are being closely watched. Data also show a stable inflow of Non-Performing-Loans (NPL) and a somewhat higher average PD compared to a year ago but still below the pre-Covid-19 levels.

In the new segmentation, part of Professional Loans (Private and Wealth related), formerly segmented in E&E, has been transferred to Individuals. This part of the portfolio amounted to EUR 2.8 billion by the end of 2022.

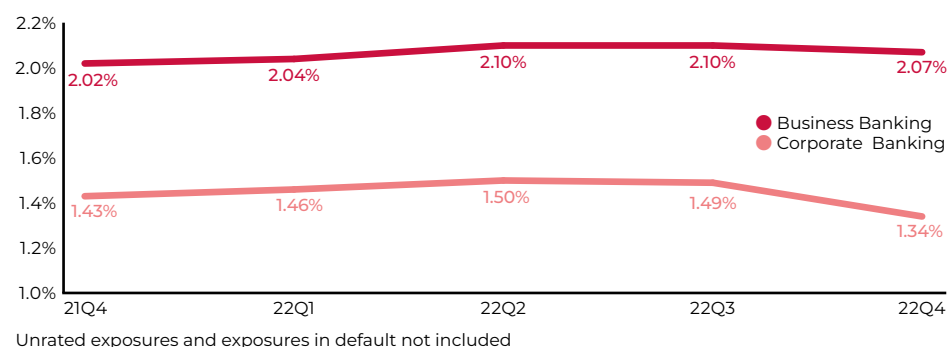
#### IV.1.3.2. Enterprises & Entrepreneurs (E&E)

Aspectacular rise in gas, electricity and food prices fuelled in 2022 consumer price inflation in Belgium and the eurozone. On top of that, supply problems remained tense through most of the year and food prices did climb steeply. In addition, due to the high inflation, automatic wage indexation mechanisms strongly increased nominal wage costs. According to the NBB, Belgian companies were only partially successful in passing on their increased costs in selling prices, which in turn negatively affected their margins. This effect is particularly present for smaller companies.

Notwithstanding all these elements, the inflow of new defaults remained at a relatively low level in 2022. The NPL ratio decreased from 2.19% in 2021 to 2.07% at the end of 2022. Although the number of bankruptcies in the Belgian market and in Belfius' portfolio increased in comparison with 2020 and 2021 - years that have benefitted from public and private support measures - the level remained below the pre-Covid-19 levels. Exports continued to increase over 2022, and Belgian companies were at least partially successful in transmitting rising costs into higher export prices. However, this was accompanied by slightly declining volumes, which may be a first indication of a declining competitiveness.

Belfius' E&E portfolio amounted at the end of 2022 to FEAD EUR 59.3 billion (EUR 52.4 million at the end of 2021) and has, so far, shown few signs of deteriorating credit quality (average PD of 1.58%, versus 1.65% at the end of 2021). This implies that the financial impact of inflationary pressures and increasing energy prices did not materialize yet thanks to the combination of Belfius' pro-active risk management and the generally good resilience of Belgian enterprises and entrepreneurs.

### Average PD of the portfolios Corporate & Business banking



Belfius expects, nevertheless, some future deterioration of credit quality, starting with the small enterprises which tend to have a weaker cash buffer to counter economic shocks. The geopolitical situation remains extremely fragile: further developments in the war in Ukraine are highly uncertain and can have a substantial impact on the outlook for the euro area in particular. The vulnerability of enterprises and entrepreneurs to indirect effects like rising costs for raw materials, salaries and energy, and the commodity scarcity will remain the area of attention in the upcoming months.

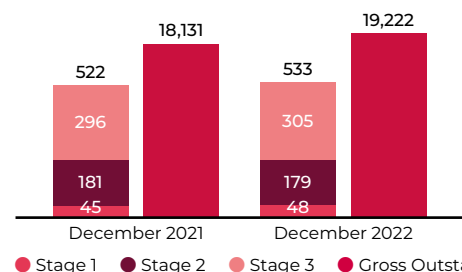


For that reason Belfius continues its efforts to proactively detect highly impacted counterparts and to assess the potential impacts. We continue the close monitoring of companies with a higher-than-average ratio energy cost/turnover, a higher leverage in combination with the appearance of early warnings. In a bottom-up approach, a specific focus on energy and labor cost evolution will be put by the credit analysts in case of credit requests and periodic reviews, with a special attention for the customer's ability to absorb price increases.

### Impairments and gross outstandings by segment

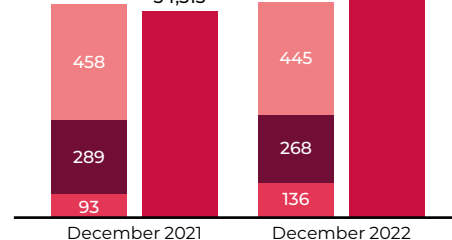
#### Business Loans

In EUR million



#### Corporate Loans

In EUR million



### IV.1.3.3. Public sector clients

Belfius' loan portfolio to the public and social sector amounted at the end of 2022 to FEAD EUR 36.8 billion and contributed this way to a diversification of Belfius' global loan portfolio. Overall, the public and social sector kept showing high credit standards and maintained its historical low risk portfolio (average PD at 0.16%), although it had to deal with a growing number of challenges.

Indeed, high inflation figures caused wage costs to rise sharply, energy bills weighted more heavily and the prices of building materials significantly increased. There have also been a number of other additional costs, such as the burden of receiving a wave of refugees in the context of the Ukraine crisis. Overall, financial stability risks clearly rose as (local) authorities often had insufficient room to support the economy as they did in the past, given high public debt and the growing need to design a credible path towards consolidation and to rebuild fiscal buffers, as e.g. ageing costs are coming fast.

In this context, it is certainly worth mentioning that the financial situation of the Belgian Regions and Communities had already deteriorated sharply in recent years. The increasing inflation and interest rates, as well as the further slowing down of economic growth will put further pressure on their deficit level and indebtedness. The latter could even become challenging in the case of economic or financial shock. This growing vulnerability has led rating agencies as well as Belfius to lower the rating of some of these entities and/or to attach a negative outlook to their current ratings. Belfius' has embedded these perspectives about debt and deficit levels into its sound risk management principles and closely manages and monitors this credit portfolio, especially in view of the upcoming elections in 2024.

The Belgian municipalities would have felt the financial turmoil above all in 2022. According to a simulation performed by Belfius Strategic Research, their ordinary balance is likely to go into red for a global amount of EUR 640 million. This deterioration is the result of a "scissors effect" between on the one hand higher growth pace of their expenditure and on the other hand lower revenue growth. Although inflation favourably influences a municipality's tax revenue, the latter will follow with a certain delay (1 to 2 years), depending on the indexation mechanism in force.

The Belgian hospitals, after 2 particularly intense years due to the Covid-crisis, were once again tested in 2022. Their energy bills rose sharply, as did their wage costs due to the automatic wage indexations. The heavily increased construction costs and rising interest rates also made it harder to make much needed infrastructure investments. In addition, the sector is still struggling with staff shortage, forcing some hospitals even to close departments. As a result, the sector on average exhibits a precarious financial balance, and faces at the same time major challenges which will inevitably have an impact on their operation, organization and financing. Except social developments such as the ageing of population, the hospital sector will have to implement the numerous reforms launched by the government such as the development of hospital networks and the reform of hospital financing. In addition, significant investments are also needed to achieve their digital transformation, to enable better information flows and to increase cybersecurity. Finally, hospitals cannot escape the stricter standards for energy sufficiency and sustainability with regard to their real estate patrimony. The hospital sector was able to keep the head above water in the past few years thanks to the important financial support offered by the government in the context of the sanitary crisis. However, the room for new concessions and support from the government will be rather limited in the upcoming years.



#### IV.1.3.4. Financial markets

The mission of Financial Markets, aligned with the mission of Belfius Bank, is to serve its clients and the Belgian economy with essential financial services. Next to this general objective, an innovative Financial Markets also contributes to the liquidity profile of the Bank through the management of Short-Term and Long-Term wholesale funding and through the management of the investment portfolios: both the ALM Liquidity and Yield portfolios (inherited from the past).

The mission of Financial Markets, aligned with the mission of Belfius Bank, is to serve its clients and the Belgian economy with essential financial services. Next to this general objective, an innovative Financial Markets also contributes to the liquidity profile of the Bank through the management of Short-Term and Long-Term wholesale funding and through the management of the ALM Liquidity investment portfolio. Financial Markets also manages the orderly run-off of the Yield and Credit derivatives portfolios (inherited from the past).

In 2022, following the end of the Covid crisis and Russia's sudden invasion in Ukraine, a series of economic parameters have materially changed. These included the sharp rise in energy prices, which led to very high levels of inflation, and the subsequent rise in interest rates as well as an increased household poverty. In this difficult context, the credit risks in the different Belfius portfolios managed within Financial Markets performed relatively well. Nevertheless, some risks remain.

The most important credit risk events are as follows:

- **Brexit:** The transition period, after the 2020 agreement between the UK and the EU, has passed without any significant consequences for financial markets. The UK CCP's (i.e. LCH) have received an extension of the temporary recognition until June 2025 reducing the immediate risks associated to this temporary recognition.
- **UK Healthcare:** In 2022, the sector continues to be under pressure due to the consequences of the health crisis and tensions between the involved parties.
- **UK Utilities:** The current tariff agreements continue to put pressure on the credit metrics of some water and gas companies. The sustained high inflationary conditions in the UK are adding to this pressure. In addition, ESG is highlighting some long-term risks especially in the energy sector.
- **Our credit derivatives portfolio, including a financial guarantees portfolio, has seen its average rating increase from BBB+ to A- following a number of important maturities. The average ratings of the ALM Liquidity and Yield portfolios have remained stable both at A-.**

- **Risk concentration:** the main concentrations remain UK inflation-linked corporate utility bonds and Italian sovereign bonds, which remain of satisfactory credit quality and continue to be closely monitored. The significant improvement of the UK real rate in 2022 has materially reduced our concentration on the UK utility and healthcare sectors. Additionally for our UK utility positions, we have extended several temporary guarantees so that 75% of these positions now benefit from a lifetime guarantee from a well rated credit insurer.
- **De-risking:** We received a permanent trading derogation from the NBB for our last remaining credit derivatives in trading. These derivatives are in run-off and we are actively seeking to unwind these positions. This has been our main de-risking focus in 2022 and will continue to be so in 2023. Our Mexican CDS position had to be further provisioned due to the weakening credit quality that followed an earlier change in indexation.

Credit risks in relation to Financial Markets activities are monitored by the Credit Risk Limit Framework which is part of the Risk Appetite Framework. Counterparty and country limits are monitored by FM Risk Management in order to limit risk concentrations.

### IV.1.4. The risk management process concerning Forbearance, Watchlist, Default and Impairments

#### IV.1.4.1. Forbearance

Forbearance measures imply the granting of concessions towards a debtor facing or about to face difficulties in meeting its financial commitments. These concessions may take the form of modifications to the loan contract or debt restructuring.

They apply to all loans and debt securities that are on-balance sheet and also to some off-balance sheet commitments. They do not apply to debt securities held for trading exposures.

Specific criteria are established for each business segment. These provide for a practical interpretation of the concepts of “financial difficulties” and “concession”.

When granting a concession, the Bank is always led by a number of mainly business-related and economic factors. The fact that concessions are made, is one of the Watchlist indicators at Belfius and leads to a transfer of the exposures from stage 1 to stage 2 under IFRS 9.



Faced with the Covid-19 pandemic and its potential consequences on the financial situation of borrowers, Belfius has reviewed its forbearance policy in 2020-2021 in line with the EBA guidance: there is no automatic change in the forbearance classification for borrowers only based on the fact of a new loan granted under the state guarantee scheme or EBA compliant requested moratoria. Clients which were granted legislative, non-legislative and other moratoria during the Covid-19 pandemic continued to be assessed, taking into consideration the existing forbearance criteria and longer-term capacity to repay. In this context, the most vulnerable clients associated with high PD's and, with potentially longer-term use of moratoria (beyond the 9 months cap) are recognized as forborne.

Contracts which have reached their probation period of 2 years are assessed to determine if they are eligible for deflagging and should no longer be considered as forbearance measures.

Forbearance outflow linked to Covid started in 22Q2 and is expected to increase over the upcoming years.

At the end of 2022, an amount of EUR 1,826 million of loans at Belfius complied with the forbearance definition, of which EUR 97 million related to Belfius Insurance compared to, respectively, EUR 1,990 million and EUR 92 million at the end of 2021. Customers in the Corporate (EUR 548 million) and Business segment (EUR 666 million) represent the highest volumes with a forbearance status.



More details on forborne exposures are provided in the Risk report annex (Table CQ1).

#### IV.1.4.2. Watchlist

The Watchlist Guideline defines internal and external (early warning) indicators to identify a significant increase of credit risk that may lead to an intensive follow-up and/or management of credit files. This allows the bank to closely monitor increasing credit risks and to take adequate credit mitigation measures in order to reduce them.

This is also reflected in the provisioning policy by applying a stage 2 for the majority of these exposures. On a quarterly basis, dedicated Risk Committees identify the files requiring a higher level of monitoring.

More details on the ageing of past-due exposures are provided in the Risk report annex (Table CQ3).



#### IV.1.4.3. Default

A transversal default definition is applied within the entire Belfius Group and on all market segments in line with the EBA Guideline.

A default status is assigned to debtors which meet one or both of the following criteria:

- the debtor has material exposures which are more than 90 days past due;
- the debtor is assessed as unlikely to pay its credit obligations in full without realization of collateral, regardless the existence of any past due amount or the number of days past due.

Belfius Default guideline provides an in-depth description of indicators used to categorize an exposure in default.

The Default Committee within the Risk department is competent to define the default status.

Based on regulatory evolutions, Belfius has implemented the EBA updated definition of default as of mid-March 2020. Its internal guidelines were updated accordingly. The aim of the EBA guideline is to harmonize the definition of default across the EU prudential framework.





Main impacts are the materiality threshold for obligations past due that are now composed of both an absolute and a relative threshold, and the introduction of a probation period of 3 months before reclassification to a non-defaulted status.

### Indicators of credit quality

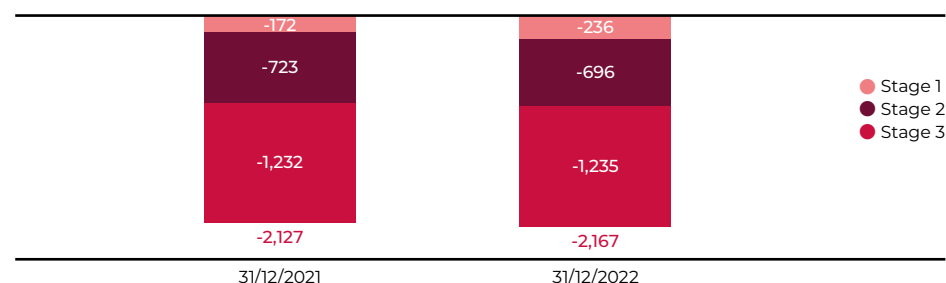
		21Q4	22Q4
INDIVIDUALS	<b>TOTAL FEAD</b>	<b>46.743</b>	<b>50.209</b>
	Of which exposures with forbearance	450	463
	Of which in default	186	189
E&E BUSINESS	<b>TOTAL FEAD</b>	<b>18.131</b>	<b>19.222</b>
	Of which exposures with forbearance	813	666
	Of which in default	539	558
E&E CORPORATE	<b>TOTAL FEAD</b>	<b>34.315</b>	<b>40.101</b>
	Of which exposures with forbearance	597	548
	Of which in default	658	617
PUBLIC & SOCIAL	<b>TOTAL FEAD</b>	<b>38.213</b>	<b>36.847</b>
	Of which exposures with forbearance	37	51
	Of which in default	31	1

### IV.1.4.4. Impairments

At the end of 2022, the total impairment stock (stages 1-2-3) amounted EUR 2,167 million compared to EUR 2,127 million at the end of 2021. This increase of EUR 40 million is mainly explained by the stage 1 and 2 evolutions which are affected by the update of the macro-economic factors, slightly offset by the reassessment of the Overlay for vulnerable exposures.

### Stock impairments by stage (consolidated)

(In EUR million)



## IV.1.5. Asset quality

At the end of 2022, the amount of impaired loans on a consolidated basis amounted to EUR 2,026 million, an increase of 0.7% compared to year-end 2021. During the same period, the gross outstanding loans to customers increased by 7.6% and amounted to EUR 111,146 million at the end of 2022. As a consequence, the asset quality ratio improved to 1.82% at the end of 2022. The coverage ratio remained stable at 60%.

More details on the credit quality by exposure classes are provided in the Risk report annex (Table CRI).



## IV.2. Credit risk exposure

### IV.2.1. Overview

The tables in the following chapter provide an overview of the overall credit risk. As prescribed by the Commission implementing regulation (EU) 2021/637 different metrics referring either to accounting or to risk concepts are used in the quantitative templates disclosed in the risk report annex.

In addition to these metrics, Belfius uses also the term of Full EAD or FEAD.

Full Exposure At Default (FEAD) is determined as follows:

- for balance sheet assets (except for derivatives): the gross carrying amounts (before credit risk adjustments);
- for derivatives: the exposure at default calculated under the standardized approach for counterparty credit risk (SA-CCR);
- for Securities Financing Transactions: the carrying amount as well as the excess collateral provided for repurchase agreements;
- for off-balance sheet commitments: either the undrawn part of credit facilities or the maximum commitment of Belfius for guarantees granted to third parties.

FEAD for instance provides a consistent metric to present a combined view of the Bank and Insurance respective exposures to credit risk.

### IV.2.1.1. Contribution Belfius Bank – Belfius Insurance

The figures in the below table are after elimination of intra-group exposures, but with inclusion of credit exposure from trading activities and counterparty credit risk.

Exposures are allocated to the final counterparty. This means that if substitution is applied to a certain exposure to a borrower guaranteed by another party, the exposure is shifted to the region, type of exposure and rating of the guaranteeing party.

As at 31 December 2022, the total credit risk exposure within Belfius amounted to EUR 209 billion, a decline of EUR 4.8 billion or 2.2% compared to the end of 2021.

#### Breakdown of credit risk by counterparty

(FEAD, in EUR million)	31/12/2021	31/12/2022	Of which	
			Bank	Insurer
Central governments	42,442	37,236	32,504	4,732
of which government bonds	9,146	8,082	3,746	4,336
of which EU Central Bank	31,628	27,283	27,283	0
Public sector entities	42,237	41,084	39,538	1,547
Corporate	47,941	50,921	48,834	2,087
Project Finance	2,956	2,341	2,341	0
Retail	58,228	61,703	57,614	4,089
Financial Institutions	13,703	11,856	10,235	1,621
Other <sup>(1)</sup>	6,334	3,937	3,049	888
<b>TOTAL</b>	<b>213,840</b>	<b>209,078</b>	<b>194,115</b>	<b>14,963</b>

(1) Other include a.o. deferred tax assets, tangible and intangible assets and gains and losses on the hedged item in portfolio hedge of interest rate risk.

This decline is attributable to both banking activity (by EUR 3.1 billion) as well as to Belfius Insurance (by EUR 1.6 billion).

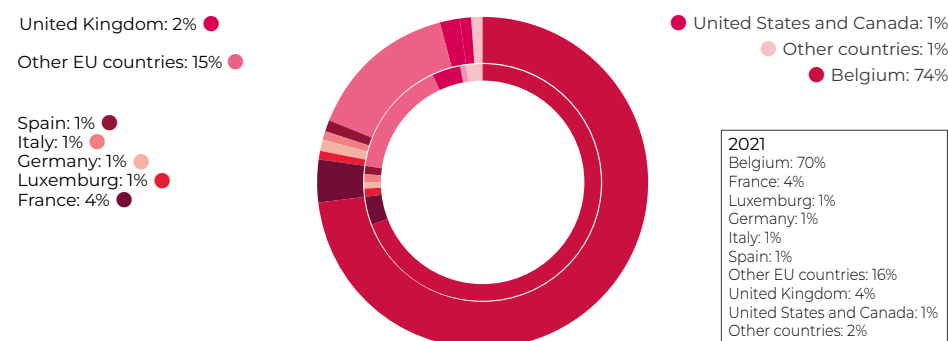
The decline by EUR 5.2 billion observed on the segment central governments is mostly due to the reduction of liquidity reserves deposited at the NBB. On the government bonds side, the exposure has declined for Belfius Insurance by EUR 1.1 billion and remained rather stable for the Bank at EUR 3.7 billion. Nearly half (45%) of the government bonds portfolio

is invested in Belgian government bonds at the Group level. While at bank level the Belgian government bonds represents 43% of the total government bond portfolio, the relative proportion at Belfius Insurance stood at 47%.

The credit risk exposure on individuals, self-employed and SMEs (29.5% of the total) and corporates (24% of the total) constitute the two main categories. The exposure on those categories increased by EUR 3 billion and EUR 3.5 billion respectively, reflecting Belfius' strategy to support the Belgian economy.

The credit risk exposure on public sector entities and institutions that are guaranteed by these public sector entities declined further in 2022 by EUR 1.1 billion.

#### Evolution credit risk by geographical region (Outside 2022 – Inside 2021)



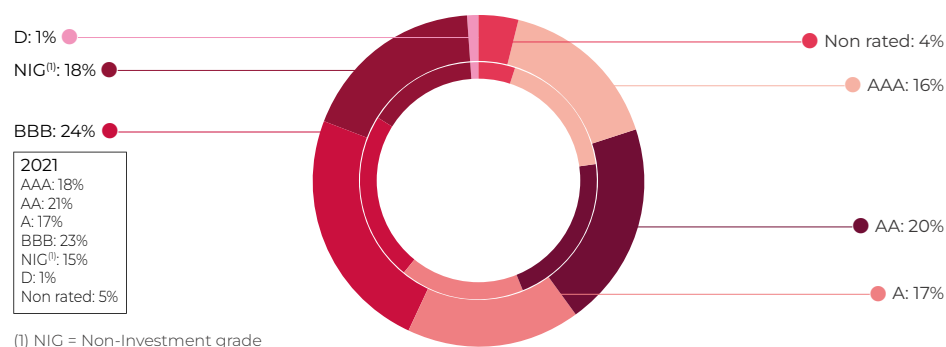
Belfius' positions are mainly concentrated in the European Union: 95% or EUR 184.0 billion at bank level and 97% or EUR 14.5 billion for Belfius Insurance. The total credit risk exposure in Belgium is 74% , 4% in France and 2% in the United Kingdom, 1.2% in the United States and Canada, 1% in Luxembourg, 0.8% in Spain and Germany and 0.6% in Italy.

The credit risk exposure to counterparties in the United Kingdom amounted to EUR 5 billion, a decrease of EUR 3.3 billion from the last year. About 70% of this credit risk exposure concerns bonds, of which close to two-third are inflation-linked, issued by utilities and infrastructure companies in the United Kingdom that operate in regulated sectors such as water, gas and electricity distribution. These bonds are of good credit quality, and

moreover most of the outstanding bonds are covered with a credit protection issued by a credit insurer with a sound rating that is independent from the bond issuer. The remainder concerns the bond portfolio of Belfius Insurance, a short-term credit portfolio for treasury management of Belfius Bank and receivables on clearing houses. The credit risks of these portfolios are also of good credit quality.

At the end of December 2022, 77% of the total credit risk exposure had an investment grade (IG) internal credit rating.

#### Breakdown of credit risk by rating (Outside 2022 – Inside 2021)



#### IV.2.1.2. Overview credit risk under the prudential scope of consolidation



The differences between the accounting and regulatory scopes of reporting are described in the Risk report annex (Tables LI1 LI2 and LI3).

At year-end 2022, 76% of the total credit risk exposures were calculated using the IRB approach. IRB exposures mainly consist of retail, corporate exposures and public and social exposures.



For further details on the credit quality of exposures by geography, economic sector or maturity, please refer to the Risk report annex (tables CQ4, CQ5 and CR1-A).

FEAD 31/12/2022	Credit risk		Counterparty credit risk			Total
	On-balance-sheet amount	Off-balance-sheet amount	Securities Financing Transactions	Derivatives	Prefunded default fund contribution	
(In EUR million)						
IRB EXPOSURE CLASSES						
Central governments and central banks	11,600	7,970	293	54		19,917
Institutions	17,850	3,664	1,283	1,437		24,234
Corporates	33,095	14,719	3,038	568		51,420
of which Corporates- SME	12,703	2,831	17	24		15,575
Retail	49,100	6,714		1		55,815
of which secured on RE SME	9,218	318				9,536
of which secured on RE non-SME	29,197	1,020				30,216
of which Qualifying Revolving		15				15
of which other retail SMEs	8,096	2,322				10,418
of which other retail non-SMEs	2,589	3,039				5,628
Equity	324					324
Securitisation	109					109
TOTAL IRB APPROACH	112,077	33,067	4,614	2,060	0	151,818
STANDARDISED EXPOSURE CLASSES						
Central governments or central banks	27,118	0		75		27,193
Regional government or local authorities	728	86		20		834
Institutions	204	240	700	65		1,210
Corporates	6,108	3,628		529		10,265
Retail	729	139				868
Secured by mortgages on real estate	378	22				400
Other <sup>(1)</sup>	6,155	330			295	6,781
TOTAL STD APPROACH	41,420	4,446	700	688	295	47,550
TOTAL	153,497	37,514	5,314	2,748	295	199,368

(1) includes exposure classes past due items, items belonging to regulatory high-risk categories, or other items and equity, including exposures under Danish Compromise.



## IV.2.2. Internal rating-based approaches

### IV.2.2.1. Competent Authority's Acceptance of Approach

By a letter sent on 21 December 2007 by the Banking, Finance and Insurance Commission (CBFA), the Belgian Regulator, Dexia SA was authorised to use the Advanced Internal Rating-Based Approach (AIRB Approach) for the calculation and the reporting of its capital requirements for credit risk starting from 1 January 2008. This acceptance was applicable to all entities and subsidiaries consolidated within the Dexia Group, which are established in a Member State of the European Union and are subject to the Capital Requirement Directive, and among them Belfius Bank (formerly Dexia Bank Belgium).

### IV.2.2.2. Internal Rating Systems

The internal models used by Belfius Bank are set up to evaluate the three Basel parameters: Probability of Default (PD), Loss Given Default (LGD) and Credit Conversion Factor (CCF). In the advanced method, a set of two models, one for PD and one for LGD, has been developed. Regarding the CCF parameter, Belfius makes a distinction between retail and non-retail counterparties: an advanced approach is applied for retail counterparties, while non-retail counterparties use the regulatory values.

The PD models estimate the one-year probability of default on a through-the-cycle basis. Each model has its own rating scale and each rating on the scale corresponds to a probability of default used for regulatory, reporting and use test purposes. The correspondence between rating and PD for each scale is set during the calibration process, as part of the model development, and is reviewed during the yearly back testing and adjusted when necessary. The number of ratings on each scale depends on the characteristics of the underlying portfolio (the number of counterparties, their homogeneity, whether it is a low default portfolio or not) and varies between 6 and 17 non-default classes. In addition, each scale has been attributed two default classes (named D1 and D2).

For non-retail, the current LGD models estimate the ultimate loss incurred in a downturn situation on a defaulting counterparty before taking the credit risk mitigants, with appropriate haircut, into account. The unsecured LGD depends on various factors such as the product type, the level of subordination for instance. LGD is an economic component accounting for direct and indirect costs related to the recovery process. The granularity of the estimate is a function of the quantity and quality of available data. For retail, LGD is mainly determined by product type and based on workout recoveries. It accounts for downturn conditions and indirect/direct costs of the recovery process. Professional loans are segmented in 5 classes subject to collateral value.

Internal estimates of Basel parameters are widely used within Belfius Bank. They are namely used in the decision-making process, credit risk management and monitoring, internal limit determination, and pricing, in addition to the calculation of the regulatory risk weighted exposure amounts.

We refer to Appendix XI.2. for more details regarding Internal Rating Systems, including the organisational structure, governance and the control mechanisms at the different stages of the model lifecycle.

In 2020, Belfius has launched a transformation plan of its IRB model landscape as a response to the latest EBA roadmap for the implementation of the regulatory review of internal models (focusing on the definition of default, PD and LGD estimations and the credit risk mitigation framework), and as a response to TRIM ("Targeted Review of Internal Models") findings.

In that context special attention is given to:

- Enhancing the data quality framework;
- Alignment to the new EBA Definition of Default;
- Review of the models to align with the EBA guidelines on PD and LGD estimation, including the simplification of the model structure for certain models and the implementation of a comprehensive Margin of Conservatism (MoC) framework;
- Rationalization of the IRB model landscape by applying an AIRB approach only to models with sufficient historical default and loss data (otherwise return to a less sophisticated approach); and by reducing the number of models to best align with Belfius Strategy.

This transformation plan will provide Belfius with a renewed set of models, as a cornerstone of the credit acceptance, loan life cycle management, credit risk management processes, pricing and reporting, and fully compliant with the latest regulatory requirements.

An overview of the Probability of Default (PD) and the Default Rates (DR) on the Bank's main portfolio under advanced method is available in table CR9.



The difference between 2021 and 2022 figures are mainly driven by the restatement with the new definition of default, esp. for small, mid- and large corporates; and by changes in the calculation window (i.e. 2013-2021 for non-retail; last 5 years for retail).



### IV.2.2.3. Back-testing

The purpose of the back-test is to assess the performance of the internal rating system ensuring an appropriate balance between capital and risk. As the formulas to calculate the Bank's capital are provided by the Capital Requirement Regulation (CRR), the internal back test relating to Pillar 1 rating systems is based on the back test of the input parameters PD, LGD and CCF in the Basel credit risk portfolio model. Please note that even if the non-retail CCF parameters are not the result of a dedicated model, they are still subject to a monitoring in order to ensure the used values are suited.

In general, the back-test procedure aims at assessing the discriminatory power of the model (ranking of the clients from "good" to "poor" grades), the calibration level (a rating system is well calibrated if the estimated PDs (or LGDs) deviate only marginally from the actual default rates) and the stability of the model's population/risk drivers.

The results of the back-testing are assessed using statistical significance tests. The outcome of the significance tests drives required action plans (e.g. recalibration process, model structure re-development).

The additional part of the back-test procedure is related to the impact of judgemental aspects i.e. the importance of judgemental qualitative variables in the final rating and the effect of expert overruling.

## IV.2.3. Standardised approaches

### IV.2.3.1. Introduction

Belfius Bank uses the Advanced Internal Rating-Based Approach (AIRB Approach) to calculate its capital requirements for credit risk. Nevertheless, it applies the Standardised Approach for some portfolios corresponding to cases specifically authorised by regulation such as:

- small business units;
- non-material portfolios;
- portfolios corresponding to activities in run-off or to be sold;
- portfolios for which it has adopted a phased roll-out of the AIRB Approach.

### IV.2.3.2. Nominated External Credit Assessment Institutions (ECAI)

Belfius uses the regulatory defined risk buckets to assess the quality, and linked risk weight, for all exposures calculated according to the Standardised approach. It also uses external ratings from S&P's, Fitch and Moody's to define the risk bucket of exposures.

The EBA standard table is used for mapping these external ratings.

If two external ratings are available, the lower of the two is used. If there are three external ratings with different risk weights attached to them, the risk weight corresponding with the second-best rating is applied. If no rating is available, the risk weight provided by the Standardised approach is used.

## IV.3. Credit risk management and governance

Credit risk is defined as, on the one hand, the possibility that a bank's borrower or counterparty will fail to meet its obligations (in the form of non-payment or non-performance) in accordance with the agreed terms, also called the payment default risk, and on the other hand, the possibility that the bank will not be able to recover its outstanding debt by means of the collateral that is linked to the debt, i.e. the risk of non-recovery and the non-secured recoveries (not linked to a collateral or guarantee).

### IV.3.1. Governance and committees

Belfius' counterparty limit framework, which is part of its global Risk Appetite Framework (RAF), is the main instrument to limit risk concentrations:

it serves as a reference point to determine the risk levels for which the Management Board and the Board of Directors are qualified; and affects as a result also the decision limits of all (other) credit committees.



Belfius has a hierarchically organized structure of credit committees and delegation rules:

- this implies that decisions are made by a higher decision level as the amount of the credit transaction increases and/or the rating quality of the counterparty declines;
- credit committees have in general equal numbers of Risk or Credit department and Business representatives, and are always chaired by a Risk or Credit department member;
- Belfius relies increasingly on an advanced and automated decision-taking process with behavioural or financial indicators - determined by Risk - as cornerstones;
- furthermore, credit (and risk) committees are to a significant extent regionalized, strengthening the principle of decision-by proximity.

Once Belfius has credit commitments on a counterparty, it is essential to monitor and control the risk evolution, in order to take corrective measures in case of quality deterioration and, when appropriate, to establish provisions for expected credit losses:

- to this end, Belfius has set up an early warning system based on behavioural and/or financial indicators;
- counterparties showing signs of weakness are closely followed by the Watchlist Committees, whose main task is to detect emerging risks as quickly as possible and to monitor them subsequently;
- in this context, Belfius strictly applies the directives of the EBA regarding Forbearance measures, i.e. all concessions towards debtors facing or about to face difficulties in meeting their financial commitments;
- a counterparty that seriously fails to meet its obligations towards the Bank receives a default status; the formal decision is the competence of Belfius' Default Committee, composed exclusively by members of the Risk department;
- the Impairment Committees decide on the adequate impairment levels for exposures in respectively stage 1 (performing), stage 2 (performing but significant credit deterioration since inception) and stage 3 (default status).

Next to all afore-mentioned committees, Belfius also disposes of a set of:

- credit risk committees whose core mission is to provide an effective credit management oversight and steering regarding all business segments;
- Methodological committees whose main aim is to validate the internal rating systems and to ensure quality control.

We refer to annex XI.4.1. for more information on the governance of credit committees.

## IV.3.2. Credit risk mitigation techniques

### IV.3.2.1. Description of the Main Types of Credit Risk Mitigants (CRM)

A Credit Risk Mitigant (CRM) is a technique used to protect or mitigate the credit risk associated with one or more risk exposures. Based on the regulation, CRMs can be classified into two main categories:

#### 1. Funded CRMs, encompassing

- On balance-sheet netting;
- Netting agreements (covering repo-style transactions or OTC derivatives);
- Collaterals:
  - cash, debt securities, equities, gold, ...;
  - immovable property collateral,
  - receivables,
  - leasing,
  - other physical collateral (e.g. on floating charge).

#### 2. Unfunded CRMs, encompassing

- Guarantees;
- Credit derivatives.

Immovable property collateral can be in the form of mortgages or mortgage mandates on physical assets such as homes, commercial property or vessels. In addition, loan agreements may contain a negative pledge clause prohibiting the customer from pledging assets to other lenders.

Guarantees can be given by private individuals, companies, national or regional governing bodies, municipalities, guarantee institutes and banks. As it is the case for the original obligor, the guarantor will be attributed a rating taking into account its debt-servicing capacity and financial wealth to intervene when the former goes into default. The rating of the guarantor is subject to an annual review in order to capture recent and forward-looking evolutions of his financial performance and his financial strength. Legal restrictions to use a guarantee as CRM are taken into account as well.



The main principle for valuing collateral is to determine and make use of the expected realisation value at the time of a possible future default when the Bank might have to realise the collateral. The valuation of collateral used in the credit origination and life-cycle:

- must be done in connection with all new credit applications;
- periodically during the credit life cycle in a risk-based and proportional manner (depending on the type of collateral, remaining level of credit exposure and evolution of the credit quality of the obligor); and
- are part of the basis for credit decisions and the credit review process.

Credit requests for residential or commercial real estate are considered based on the property's market value, external appraisals or internal value estimates as set out in Belfius' internal credit risk guidelines.

Financial collaterals are considered based on their market value with haircuts for market volatility, correlation with obligor and holding period. In order to reduce the risk, margin calls can be added to the loan or the pledge agreement. The use of financial collateral (except for cash in the case of derivatives transactions) is rather limited.

For Corporate and Specialized Lending credit files, in addition to the credit quality assessment and the credit risk mitigation techniques, moral commitments may be added e.g. in the form of financial covenants in order to monitor the evolution of the financial performance of the obligor and to take precautionary actions in case of non-respect. Examples of financial clauses are requirements for Net Debt/EBITDA (leverage) and minimum level of equity (solvency).

#### IV.3.2.2. Policies and Processes

Within Belfius, managing the CRM involves the following tasks:

- analysis of the eligibility of all CRM under the Standardised and Advanced Approaches;
- periodic collateral valuation in mark-to-market;
- description of all CRM characteristics in internal Risk Systems, such as:
- mortgage: rank, amount and maturity;
- financial collateral: valuation frequency and holding period;
- guarantee/credit derivative: identification of the guarantor, analysis of the legally mandatory conditions, check whether the credit derivative covers restructuring clauses;
- security portfolio: description of each security.

All relevant data concerning eligibility criteria, minimum requirements, specific characteristics and valuation are captured in various IT tools and detailed procedures are documented and implemented in the internal management process, both in line with the Basel II standards (Basel III for OTC and SFT).

More specifically, Belfius applies prudent collateral valuation rules integrating adequate haircut layers based on the relevant items influencing the value of the collateral for the Bank. Depending on the nature of the collateral, revaluation procedures based on automated information flows, on indexes or expert analysis are in place.

#### IV.3.2.3. Regulatory Treatment

For derivatives and securities financing transactions netting agreements, Belfius recognises their impact (subject to eligibility conditions) by applying the netting effect of these agreements on the calculation of the Exposure at Default (EAD).

For guarantees and credit derivatives, Belfius recognises the impact by substituting the PD, LGD and risk weight formula of the guarantor to those of the borrower (i.e. the exposure is considered to be directly towards the guarantor) if the risk weight of the guarantor is lower than the risk weight of the borrower.

For financial and physical collateral, Belfius methodology relating to eligible CRM depends on the approach:

- IRB Approach:
- for retail exposures, CRM are incorporated into the calculation of LGD based on internal loss data and calculated by the AIRB Approach models;
- for non-retail exposures, an unsecured LGD is used, CRM (after regulatory haircuts) are taken into account directly through the EAD.
- Standardised Approach: eligible CRM (after regulatory haircuts) are directly taken into account in the EAD.

In the Risk report annex, following detailed specifications are provided:

- an overview of the credit mitigation techniques (Table CR3);
- for exposures under the standardised approach, details on the effect of credit risk mitigation techniques and the decomposition in risk weight bands (Tables CR4 and CR5);
- for exposures under the IRB approach, the same information for the significant portfolios (Tables CR6 and CR7-A).





## IV.4. Counterparty credit risk

Since June 2021, counterparty credit risk exposure for derivatives is measured via the standardised method for counterparty credit risk (SA-CCR). No change in method has been made in 2022 nor for derivatives nor for securities financing transactions (SFT).

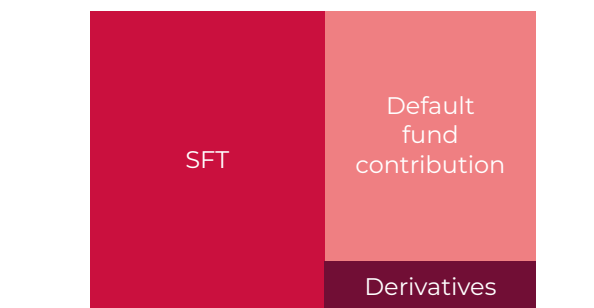
The significant increase of the interest rates during 2022 has materially reduced the market value of our derivatives transactions, resulting in a lower counterparty credit risk exposure. The number of outstanding securities financing transactions has also been reduced. We continue to clear as much transactions as possible through the use of central clearing counterparties (CCP's), reducing our individual counterparty risks.

### Definition

Counterparty Credit risk is defined as the risk that the counterparty to a transaction could default before the final settlement of the transaction's cash flows and applies to derivatives and securities financing transactions. An economic loss would occur if the transactions or portfolio of transactions with the counterparty has a positive economic value at the time of default. Exposure may be reduced via netting of transactions and the application of collateral posting/receipt under legal agreements (ISDA/EMA/CSA for derivatives and GMRA/GMSLA for SFT).

### Exposure after netting and collateralisation

**CCPs (EUR 0.7 Bn)**



**Other counterparties (EUR 3.7 Bn)**





### IV.4.1. Management of the risk

Counterparty credit risk on derivatives exists in all Over-The-Counter (OTC) transactions such as interest rate swaps, foreign exchange swaps, inflation or commodity swaps, credit default swaps and securities financing transactions.

Counterparty credit risk is measured and monitored according to the general principles described in Belfius credit risk measurement guideline

The measurement of the exposure at default for derivatives transactions has been changed on 30 June 2021 to SA-CCR. This method is a more risk-sensitive method than the previously applied Current Exposure Method (CEM). SA-CCR penalizes uncollateralised transactions while netting benefits are better recognised for margined transactions.

To reduce the counterparty risk, Belfius' OTC derivatives are in most cases concluded within the framework of a master netting agreement (ISDA or EMA), taking into account the general rules and procedures set out in the Belfius credit risk measurement guideline. Collateral exchanges for derivative contracts are regulated by the terms and rules stipulated in a Credit Support Annex (CSA).

The exposure at default for securities financing transactions is based on the cash or securities given, reduced by the collateral received (cash or securities) and taking into account regulatory haircuts as defined by the CRR. Belfius applies netting when eligible agreements (GMRA or GMSLA) are in place.

All OTC transactions are monitored within the credit limits set up for each individual counterparty as well as on group level. Sub-limits may be put in place per type of product or activity. Credit Limits are decided by competent committees (FM CLC and CDC) and breaches to these limits are monitored on a daily basis and reported to the respective committees.

In order to avoid direct OTC counterparty risk more and more transactions are done via central clearing counterparties (CCP's).

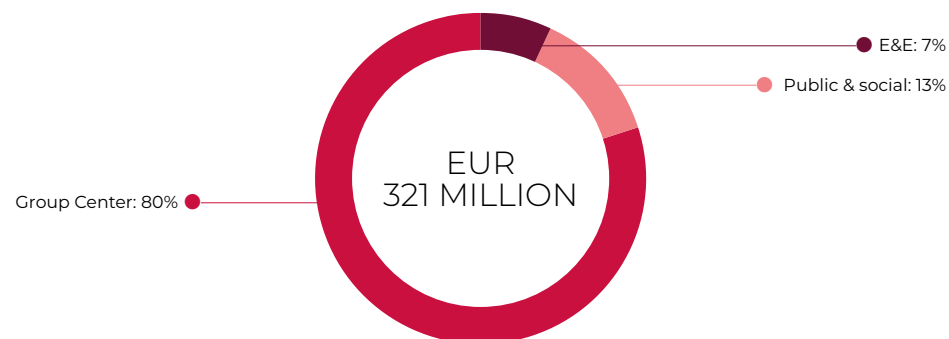
Both for derivatives and securities financing transactions, strict guidelines are in place to avoid wrong-way risk in order to avoid that received collateral has a direct link to the counterparty or any of its affiliates.

An adjustment, called Credit Value Adjustment (CVA) reflecting the market value of the counterparty credit risk, is calculated on all non-collateralised derivatives (concluded with a limited number of counterparties, such as local authorities, project SPVs, some corporates or monoline insurers), as well as on collateralised derivatives (although limited in credit risk amount due to the daily exchange of collateral). This adjustment is updated, monthly, based on the evolution of the value of the derivatives and the credit quality of the counterparty. Note also that, along the credit value adjustment, other types of adjustments are applied on derivatives (funding value adjustment, debit value adjustment).

The stock of CVA at end 2022 for Financial Markets, amounted to EUR 51.6 million, which represented a near status quo compared to the EUR 51.3 million as of year end 2021.

The capital charge for CVA risk is calculated according to the standardised approach. In 2022, the CVA RWA decreased by EUR 358 million due to decreasing exposures.

#### CVA RWA by segment



CVA capital charge is detailed further in the Risk report annex (Table CCR2).

Exposures to counterparty credit risk, including exposures to central counterparties are detailed in the Risk Report annex (tables CCR1, CCR3, CCR4 and CCR8).

To avoid direct OTC risk, more and more transactions are transferred to central counterparties (CCP's).





### IV.4.2. Counterparty credit risk mitigation



The impact of credit risk mitigation techniques is illustrated in the Risk report annex (tables CCR1, CCR5-A and CCR5-B). Collateral may be posted/received in the form of cash and/or securities in the form of variation margin or net independent collateral amount.

The exposure after netting and collateralisation at year-end 2022 on CCP's and other counterparties was EUR 3,183 million for derivatives and EUR 1,219 million for securities financing transactions.

Concentration limits are an essential part of the Risk Appetite Framework of Belfius and are monitored on a continuous basis. This also includes concentrations that might arise following credit risk mitigation techniques. In particular, in order for collateral to be effective in times of need, Belfius monitors:

- the concentration of the received collateral;
- the liquidity of the received bonds;
- the impact on collateralization of a possible rating downgrade of one of the contractual parties (either Belfius or the counterparty).

In the event of a one-notch downgrade of Belfius, the impact on the collateral to be posted will be limited as this downgrade will only affect a small portion of the collateral agreements in place.

### IV.4.3. Credit derivatives exposures



Exposures to credit derivatives transactions in the trading portfolio, are detailed in the Risk report annex (Table CCR6).

The portfolio contains:

- Single-name CDS: portfolio of open derivatives where protection is sold to banking counterparts. These sold derivatives are collateralized;
- Index CDS are used as mitigants of the CVA risk and are ultimately cleared through a CCP.

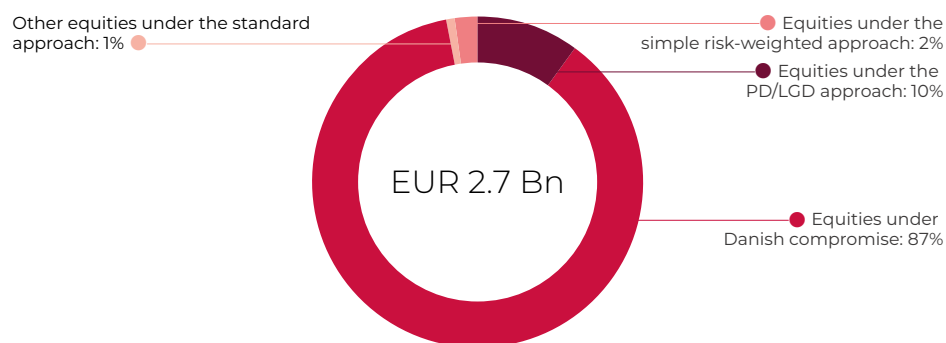
## IV.5. Focus on equity exposure

For the calculation of the capital requirement for equity exposure, Belfius Bank applies the PD/LGD method. If the PD/LGD method cannot be applied (e.g. no available ratings), the simple risk weight (standardized) method is used.

Besides:

- at the beginning of 2014, the NBB granted the Danish Compromise option (financial conglomerate) to Belfius allowing a new prudential treatment for Belfius Insurance participation and subordinated debts (370% risk weight), classified under the standard approach;
- items classified as significant investments according to Article 48 of CRR are weighted at 250%.

### Equity method by exposure



Further details are provided in the Risk report annex (Tables OV1, CR10.5, INS1 and CR5).

Note that as Bank-insurer group, the largest part of the equity portfolio is held as an economic hedge for long-term insurance liabilities. For information on Belfius Insurance equity exposure, we refer to the chapters Risk Management of the Annual Report 2021 of Belfius Insurance, and the Belfius' Management report (see dedicated section on insurance risks).





## IV.6. Securitisation risk

Depending on the role played by Belfius Bank regarding securitisation transactions, the objectives can vary from bringing differentiation in the long-term funding mix, reduction of the economic capital requirement or improvement of the risk-return ratio.

Belfius Bank currently has retained asset-backed securities which can for instance be used as collateral for secured funding agreements.

### IV.6.1. Objectives and roles of Belfius Bank

As Originator: Belfius Bank carries out securitisation transactions related to various asset classes: mainly residential mortgage loans, public finance loans and loans to SMEs. These transactions are in general carried out with a view to manage adequately the liquidity and funding profile.

The securitisation activity as originator is described in the Section VI.2.

As Servicer: In transactions where Belfius Bank is the originator, Belfius Bank in general continues to service the assets being securitised.

As Arranger of Securitisation Transactions for Customers: Belfius Bank acts as arranger or advisor on securitisation transactions for customers. In general, Belfius Bank receives fees for structuring or advising on transactions.

Another Role: depending on the specific details of a transaction, Belfius Bank may undertake various roles in securitisation transactions ranging from account bank to hedging provider or liquidity facility provider. Belfius Bank may also act as calculation agent, paying agent or corporate services provider.

Belfius Bank does not act as a sponsor for ABCP, third party assets or multi-seller programmes, and it does not provide liquidity facilities to such programmes.

### IV.6.2. Securitisation activity as investor

Belfius' investment framework for the ALM Liquidity (LCR) portfolio allows for the investment in well rated, Simple, Transparent and Standardised (STS) and LCR eligible securitisations. No investments in re-securitisations are allowed. These investments are purely done from a diversification perspective within the liquidity objective of this portfolio. Capital requirements on these investments are calculated based on the STS framework, meaning with an external rating-based approach. No new acquisitions have been done during 2022 within the liquidity portfolio.

Exceptionally securitisations can be purchased as an alternative funding source for corporate clients. These can be non-STs and non-LCR eligible. No acquisitions have been made in this context during 2022.

Belfius uses the external rating-based approach (SEC-ERBA) for its securitisations as investor (only STS positions possible) as mentioned in the risk report annex (where the STS category and distinction by underlying asset type is mentioned). Moody's, Fitch and S&P are used for the SEC-ERBA approach applied on the investments made. If an external rating is unavailable SEC-SA is used.

All investments within the ALM liquidity portfolio are booked at Amortised Cost. Re-securitisations are considered to be non-basic in terms of IFRS9 and would be booked at fair value through P&L but these are not allowed to be invested in.

At the end of 2022, the Belfius Bank's investment portfolio was EUR 179 million, compared to EUR 265 million at the end of 2021.

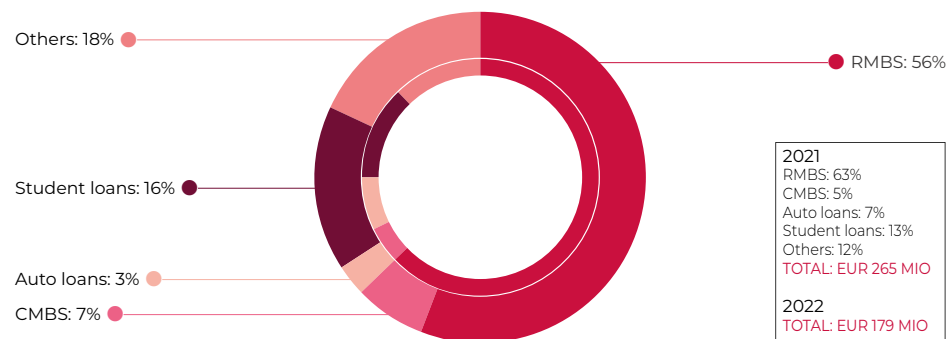
The decrease is the result of the amortisation of the existing (legacy and liquidity) portfolio (EUR -86 million).

The portfolio is only composed of senior granular ABS transactions and EUR 38 Million of this exposure are STS securitisations.

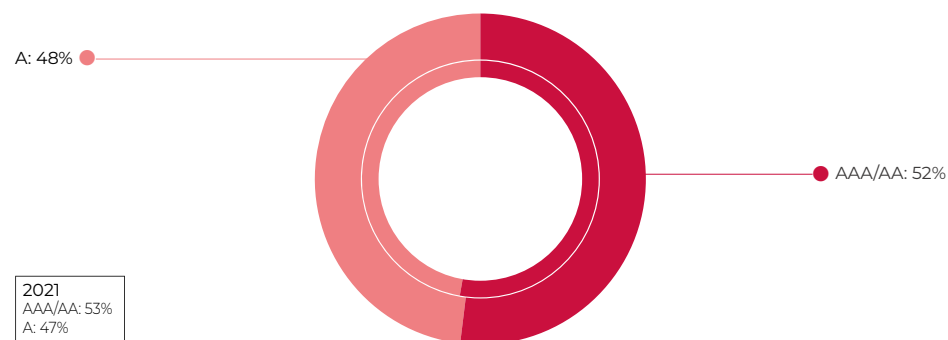


Further details on underlying assets and capital requirements are provided in the Risk report annex (Tables SEC1 and SEC3).

#### Activity as investor – by underlying (Outside 2022 – Inside 2021)



#### Activity as investor – by rating (Outside 2022 – Inside 2021)



# V. Market risk

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## V.1. Overview

### V.1.1. Market risk definition

Overall, market risk can be understood as the potential adverse change in the value of a portfolio of financial instruments due to the movements in market price levels, to changes in the instrument's liquidity, to changes in volatility of market prices or changes in the correlations between the levels of market prices.

Management of market risk within Belfius encompasses all Financial Markets activities of the Bank and focusses on interest rate risk, credit spread risk, foreign-exchange risk, equity risk (or price risk), inflation risk and commodity price risk.

In the Risk report we make the distinction between the Structural & ALM risk, on the one hand, and Trading Market Risk, on the other hand.

Market risk of Belfius Insurance is separately managed by its ALCo's. Belfius Insurance's ALCo makes strategic decisions affecting the balance sheets of the insurance companies and their financial profitability taking into consideration the risk appetite pre-defined at Group level (i.e. directional ALM position in interest rate risks, equity and real estate risks, volatility and correlation risks).

### V.1.2. Risk types

The changes in market risk can be triggered by the fluctuations in the levels of:

- interest rates;
- credit spreads;
- inflation;
- foreign-exchange rates;
- equity prices;
- commodity prices;

and their related risk factors like volatility or correlation, for example.

Interest rate risk may be understood as the variation of the value of assets or liabilities following changes in interest rates quoted on the markets. It is most pronounced in debt instruments, derivatives that have debt instruments as their underlying reference asset and other derivatives whose values are linked to market interest rates.

Credit spread risk is linked to the credit spread curve that can change for a counterparty even if the credit quality (rating) remains unchanged. This impacts the XVAs and mainly the Credit Value Adjustment (CVA) which applies only on derivatives. Credit spreads also affect the bond asset price, but these are mostly value at amortized cost and exposure in trading portfolios at fair value is limited.

Foreign-exchange risk is the potential risk that movements of exchange rates may adversely affect the value of a financial instrument or portfolio. Despite exchange rates being a distinct market risk factor, the valuation of foreign-exchange instruments generally requires knowledge of the behaviour of both spot exchange rates and interest rates.

Equity price risk is the potential risk of adverse changes in the value of an institution's equity-related holdings. Price risks associated with equities are often classified into two categories: general (or non-diversifiable) equity risk and specific (or diversifiable) equity risk.

## V.2. Market Risk – Structural & ALM Risk

The year 2022 was first marked by a bullish movement on the medium-long part of the curve as the market anticipated the end of the quantitative easing measures in the context of extreme pressure on inflation. Further, a massive upward movement in short-term rates flattened the slope until the yield curve inverted in the last quarter.

This sharp reversal in monetary policy has been well anticipated by Belfius. We proactively took different measures to protect the economic value and the net interest income from the interest rate hikes. These measures included the reduction of the risk appetite and the limits (e.g. bpv), adjustment of the stress scenario, development of the new dashboards to assess early warnings (inflation and interest rate risks), macro-hedging (payer swaps), revision of the duration of key liability products and development of a coherent liability strategy.

Strong diversified growth in the loan book combined with the favourable asset/liability yield differential dynamics enabled a solid net interest income growth.

### Definition

The structural & ALM risk exposure at Belfius results from the imbalance between its assets and liabilities in terms of volumes, durations and interest rate sensitivity.

In respect to the interest rate risk, Belfius Bank pursues a prudent risk management of its interest rate positions in the banking book within a well-defined internal and regulatory limit framework, with a clear focus on generating stable earnings and preserving the economic value of the balance sheet - macro-hedging approach - thoughtfully considering natural hedges available in the bank balance sheet.

The **long-term sensitivity of the ALM perimeter** was EUR -59 million per 10 bps at 31 December 2022 (compared to EUR -55 million per 10 bps at 31 December 2021), excluding interest positions of Belfius Insurance and of the pension funds of Belfius Bank.

A **50 bps increase of interest rates** has an estimated positive impact on net interest income (before tax) of EUR +32 million of the next book year and an estimated cumulative effect of EUR +87 million over a three year period, whereas a 50 bps decrease would lead to an estimated impact of EUR +8 million of the next book year and an estimated cumulative effect of EUR +2 million over a three year period.





## V.2.1. IRRBB risk management

The first half of 2022 was marked by negative short term interest rates, while the announcement of the end of quantitative easing measures and a restrictive discourse from the ECB triggered the rise of the long rates. This environment eased the pressure on the Bank's transformation model: if the differential in remuneration between deposits (with a tariff close to zero or legally floored at 11bps) and cash investments remains negative (although partially offset by the advantageous conditions of the T-LTROs and tiering on deposits), the move into positive territory of the medium-long term zone of the yield curve has made it possible to limit early repayment on fixed mortgages and allowed revaluation on indexed ones. Furthermore, this increase in rates has strongly improved the collateral cost for derivative contracts used to hedge the Bank's exposure to interest rate risk, with the fall of EUR 4.7 billion in the value of the total collateral provided, including EUR 2.2 billion of collateral in GBP (in EUR equivalent).

With inflation accelerating to levels not seen since the 1980s, the second half of 2022 saw a succession of sharp hikes in policy rates that led to the flattening and then inverting of the yield curve. Due to an increasingly positive assets-liabilities yield differential, downward pressures on net interest income have reversed, despite flat curve in the short-medium term and lower margins on loan production.

In this environment marked by the cycle of key interest rate hikes that is still incomplete with high and persistent underlying inflation, Belfius ALCo remains particularly attentive to the changes in customer behaviour and the expected rebalancing of liabilities, with the primary objective of complying with our risk appetite framework. This led to an early revision of our interest rate strategy (acceleration of payer swap programs, review of the main ALM assumption and models, reduction in duration of savings accounts with immediate coverage).

Thus, from the start of 2022, a policy of macro hedging (fixed rate payer) against a rise in long-term rates was implemented and continued successfully throughout the year to protect the net interest income and the economic value, within the risk framework limits.

As part of the proactive anticipation of the structural changes, the Financial Plan has been stressed last quarter 2022 with the significant interest rate shock scenario that led the curve to an inversion, as well as to the major shift in liabilities and decrease in production. Thus, in the light of analyses of clients behavioral models and stress tests, in December, a clear strategy for savings accounts led the Bank to be the "first player" in raising tariffs on non-maturing deposits.

Given the uncertainty on financial markets and the behaviour of clients and competitors, Belfius decided to keep the IRRBB risk appetite limits for 2023 unchanged.

In 2022, the ALM Risk Framework (enhanced in 2021) has proved its resilience in highly volatile market conditions: the IRRBB dashboard has acted as an early warning system by alerting for change in the rate environment and the potential impact on the models used for IRRBB management, for which efforts were made to improve simulations in complex yield curve scenarios.

For more specific information about IRRBB risk management we refer to the Template EU IRRBBA in the risk report annex.



## V.3. Market Risk – Trading Market Risk

Volatilities and risk aversion were back in 2022 after years of globally very low levels of volatilities, at the exception of some short episodes (Brexit, Covid-19,...). This stems from the abrupt change in monetary policy, needed to fight inflation. In this context:

- the results were very resilient, amongst others due to the enhanced XVA risk framework imposing dynamic hedging of the main XVA sensitivities;
- the exposures were reduced, as the important increase in UK real rate has had a positive impact on Belfius' ex-legacy UK inflation bonds exposures. The increases in interest rates also reduced our uncollateralized exposures and, therefore, sensitivities like the one on our funding spread decreased;
- model deficiencies, for which a change was requested in mid-2021, were exacerbated, leading to important noises within our Internal Model VaR and our internal VaR metrics. This change was approved in Q4 2022, solving the issue.

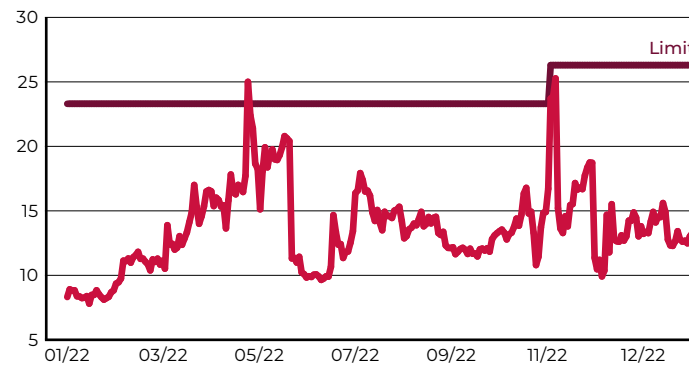
Therefore, FM results have been very solid, while the risks have not increased over the year.

### Definition

Overall, market risk can be understood as the potential adverse change in the value of a portfolio of financial instruments due to movements in market price levels, to changes of the instrument's liquidity, to changes in volatility levels for market prices or changes in the correlations between the levels of market prices.

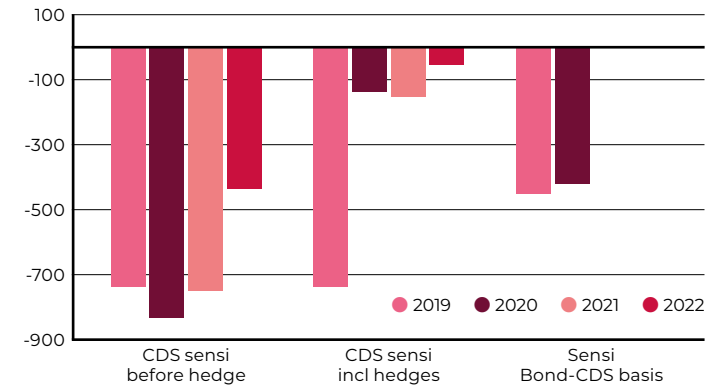
### Evolution of global VaR in 2022

In EUR million



### Evolution of credit spread sensitivity (before and after hedges)

In EUR million





Financial Markets activities encompass client-oriented activities and hedge activities at Belfius Bank. No Financial Markets activities are undertaken at Belfius Insurance.

The mission of Financial Markets, aligned with the mission of Belfius Bank, is to serve its clients and the Belgian economy with essential financial services like hedging, investing or funding. Most positions within the trading book are centralized within the hedging desks (flow management desks) which are dynamically managing or hedging internal (e.g. ALM) and external client flows on different asset classes. Some positions also remain on Credit Derivatives, those are detailed in the Risk report annex (Table CCR6).



### V.3.1. Fundamentals of market risk in 2022

Volatilities and risk aversion were back in 2022 after years of globally very low levels of volatilities, at the exception of some short episodes (Brexit, Covid-19,...). This stems from the abrupt changes in monetary policy with amongst others important increases in interest rates and the sharp reduction of unconventional monetary policy actions. A paradigm shift was indeed needed to fight inflation that followed the exit of the pandemic and the energy crisis related to the war in Ukraine. However, the year ended relatively calmly as inflation seemed to have peaked and European oil and gas supply problems were less than anticipated.

In this context, the XVA risk framework developed and improved over 2020/2021 kept performing well, keeping the P&L volatility to low levels and allowing to maintain the reduction of RWA (CVA). The evolution of interest rates significantly reduced our uncollateralized exposures and the collateral posted which had a beneficial effect, amongst other by reducing our sensitivity to our own funding spread, which however increased over the year. Another positive effect, due to the UK real rate (+250bp on 35Y), happened on the Risk weighted exposures via Belfius' ex-legacy UK inflation bonds, which reduced drastically the exposure by EUR -3.2billion in 2022.

On the downside, the new environment of high rates and increased IR and FX volatility exacerbated VaR model deficiencies for which we already requested a model change in 2021. We faced unexpectedly increasing Internal Model Value-at-Risk and accompanying Market RWA while the market risks did not really change. Our Internal Model change was approved by the ECB in Q4 22. This made the market risk RWA evolutions throughout the year very volatile. But, due to the approved correction, the impact at the EOY was finally more limited and further decrease is expected in Q1 2023.

The VaR used for internal limit control and as RAF indicator was also linked to this same model. This VaR therefore also suffered the same volatile behavior which did not represent a true increase of the risk. But, thanks to the model change, this VaR consumption also ended the year at relatively low levels (EUR 13.3 million vs limit of EUR 26.3 million).

In the context of sound market risk management, specific milestones for financial markets in 2022 have been achieved:

Concerning management of ex-Legacy trading positions (for which a trading derogation is given) and banking positions, guarantees have been extended on part of the banking legacy portfolio so that now 75% of the UK utilities benefit of a lifetime guarantee. Adjustments were applied in the provisioning of some ex-Legacy Trading positions, which could ensure a smoother exit for the three CDS benefiting from the trading derogation.

Other deriskings executed in 2022 include an unwind of a financial guarantee, novation of a CDS protection and two smaller bond position decreases. The XVA framework was finalised, with all material XVA now calculated by validated models.

Permanent 'crisis' monitoring between Risk and FO remained in place, although at a lower frequency.

### V.3.2. Market risk governance

With the purpose of effectively managing the market risks Belfius Bank is facing, FM Risk Management has identified the following cornerstones as key pillars for the risk management of its Financial Market (FM) activities:

- an efficient organisation fostering an accurate identification, analysis and reporting of the different risks Belfius Bank is bearing, as well as a continued training of people in order to remain up to date with the latest evolutions in theories, regulatory issues, metrics or market changes;
- a robust limit framework with differentiated limits by activity or risk factor that is to be respected by all parties involved in market activities. On top of the VaR limits or P&L triggers, several other metrics have been identified as key controlling tools in the risk management process:
  - limits on notional amounts;
  - limits on maturities;
  - limits on type of products;



- limits on sensitivities (known as “Greeks”: delta, etc.);
- back testing;
- stress tests;
- finally, this framework is regularly submitted for revision to the FM Committee in order to be commensurate to the risk appetite defined by the Board of Directors of Belfius Bank.

### Committees

The Financial Markets Committee (FMC) is the main committee for Financial Markets Management. Its main objective is to provide effective risk management oversight and steering of the Financial Markets activities. This includes reviewing business, risk and P&L reports, and providing an appropriate risk management and governance framework aligned with the RAF and business objectives set forward by the Management Board. As a consequence, the FMC is responsible for determining market risk limits consistently with the Market Risk Appetite.

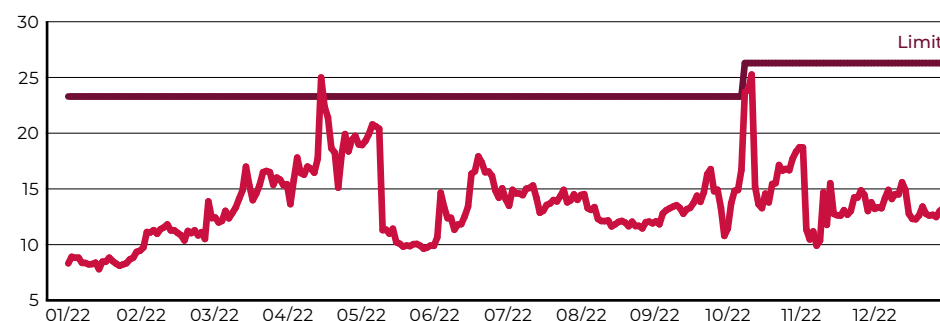
The Risk Policy Committee validates all major changes in risk governance. For the sub-committees, we refer to annex XI.4.1.

### V.3.3. Market risk measures

The Value-at-Risk (VaR) concept is used as the principal metric for proper management of the market risk Belfius Bank is facing. The VaR measures the maximum loss in Net Present Value (NPV) the Bank might be facing in normal and/or historical market conditions over a period of 10 days with a confidence interval of 99%. The following risks are monitored at Belfius using a VaR computation:

#### Evolution of global VaR in 2022

In EUR million



- the interest rate, inflation and foreign exchange (forex) rate risk: this risk category is monitored via a historical VaR based on an internal model approved by the National Bank of Belgium and ECB. The historical simulation approach consists of managing the portfolio through a time series of historical asset yields. These revaluations generate a distribution of portfolio values (yield histogram) on the basis of which a VaR (% percentile) may be calculated.  
The main advantages of this type of VaR are its simplicity and the fact that it does not assume a normal but a historical distribution of asset yields (distributions may be non-normal and the behaviour of the observations may be non-linear);
- the general and specific equity risks are measured on the basis of a historical VaR with full valuation based on 1 year of history;
- the spread risk is measured via a historical approach, applying 1 year of observed variations on the sensitivities;
- the commodity risk is measured via a simplified VaR approach where calibrated shocks are multiplied with the sensitivities.



The overall FM VaR limit was adapted in Q4, from EUR 23.3 million to EUR 26.3 million, to reflect the inclusion, due to a change in accounting rules, in the trading book of an activity previously considered as part of banking book. The risk appetite itself has not changed.

### V.3.4. Market risk exposure

#### Value-at-risk by activity

VaR <sup>(1)</sup> (99% 10 days)	31/12/21				31/12/22			
	IR <sup>(2)</sup> & FX <sup>(3)</sup>	Equity	Spread	Other risks <sup>(4)</sup>	IR <sup>(2)</sup> & FX <sup>(3)</sup>	Equity	Spread	Other risks <sup>(4)</sup>
In EUR million								
By activity								
Average	5.4	4.7	0.6	0.3	7.5	4.6	1.1	0.4
EOY	3.9	2.6	0.2	0.5	6.3	5.8	0.8	0.4
Maximum	14.4	9.7	1.5	0.6	17.5	12.0	2.3	0.8
Minimum	2.4	2.4	0.1	0.3	3.7	2.2	0.2	0.4
Global								
Average	11.1				13.6			
EOY	7.2				13.3			
Maximum	25.4				25.3			
Minimum	5.9				7.8			
Limit	23.3				26.3			

(1) The Value at Risk (VaR): is a measure of the potential change in market value with a probability of 99% and over a periode of 10 days.

(2) IR: interest rate risk and inflation risk.

(3) FX: forex risk.

(4) CO<sub>2</sub> risk.

The overall average VaR of Financial Markets activities increased from EUR 11.1million in 2021 to EUR 13.6 million in 2022.

The VaR increased in the first quarter of 2022 and early Q2 and even briefly breached the limit due to a combination of temporary increased equity positions and increased IR volatility. This triggered a reduction of positions and a refinement of the VaR methodology. At the end of Q3 and early Q4, the VaR deficiencies (see section 3.6) were exacerbated by increased rates and volatility in the financial markets. A model change in early November reduced the noise of the IR&FX VaR model and brought it back to more decent levels. This change happened in line with the internal model VaR as both are linked. Approval for the model change which was asked in early 2021 was received in Q4 2022.

### V.3.5. Stress testing

Although the VaR is a very useful risk management tool for controlling day-to-day loss-risk exposures, it does not fully withstand the test of abnormal market movements, and it does not always give a total accurate picture of market exposure. Stress tests reveal sometimes better such information by gauging Belfius market positions vulnerability to exceptional events and hence by providing additional information about market risks alongside the information embedded in the VaR. These risks include those associated with extreme price movements and those associated with scenarios not reflected in recent history or implied by the parameters used to compute the VaR. Consequently, Belfius Bank uses stress tests in addition to the VaR approach.

The stress test framework has been reviewed (update of the scenarios) and the scope has been enlarged to include stress tests on Fair Value Hedge positions, XVA and Credit Derivatives.

Three types of scenarios are considered: calibrated scenarios (shocks on each risk factor, calibrated as quantiles of their historical distribution), specific scenarios (specific shocks on some risk factors) and historical scenarios (scenarios based on previous crises, for which the Covid stress of 2020 has been added).

The results of these stress tests are reported on a monthly basis in the FM Risk Monitoring Report and to the FMRR.

### V.3.6. Regulatory internal model and back testing

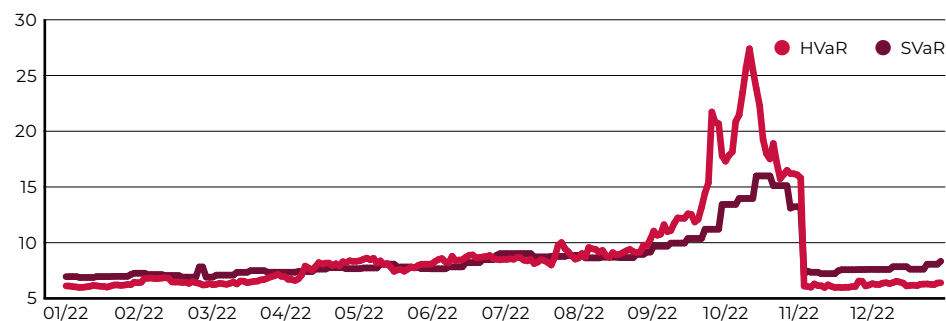
Belfius Bank uses its internal VaR model for the regulatory capital requirement calculation on foreign exchange risk and general interest rate risk within the trading scope.

During 2022 the model was highly volatile and required to be changed as rising interest rates and increased cross-currency volatility led to inconsistent model behaviour. This was anticipated by asking a model change in 2021, with final approval only in Q4 2022, thus still impacting the EOY market risk RWA (given the 60-day average). Impact of model change on RWA is around -3.3 billion, compensating the Q4 increase of +3.2 billion due to incoherent model behavior.



### Evolution HVaR and SVaR (internal model) in 2022

In EUR million



Technical aspects of the VaR:

- VaR is scaled by considering the scaling of time rule ( $\text{VaR}_{10d} \text{ equals } \text{VaR}_{1d} \text{ times } \sqrt{10}$ ). Previous to a model change brought in November 2022, the scaling happened through scaling of returns.
- VaR returns are now either relative or absolute, with most IR curves having absolute shocks; FX Spot and IR volatilities have relative shocks. Previous to model change, returns were mostly in a mixed approach, between relative and absolute.
- The VaR is now calculated by taking into account the currency of collateral. A final approved change concerns the inclusion on the FVA sensitivities in the internal model calculation.
- Where it is possible, the VaR is simulated in full revaluation. For the credit derivatives and FVA, the simulations of interest rate and Fx shocks is done in sensitivities.
- Discrepancies between full eval and sensitivities as well as effect of non-material risk factors is analyzed in the regulatory Risks Not In Model framework (RNIM) in order to ensure that their individual and global effect remain low.

Beside the VaR described above, Belfius Bank calculates a Stressed VaR (SVaR). The SVaR is computed on a weekly basis using 250 historical daily evolutions of parameters from the stressed period March 2008-April 2009.

Both VaR and SVaR are calculated on the same scope:

- Flow management trading (with the exception of equity trading which is treated in standardized approach): these IR and IR options desk externalize internal flows coming from sales, structuring and ALM, within a strict limit framework.
- Credit derivatives: legacy trading scope for which Belfius has a trading derogation.
- XVA hedges: internal hedges of IR and inflation exposure coming from XVA exposure.
- FVA: exposure coming from uncollateralized trades

The regulatory capital is calculated by using both the VaR and the SVaR. In 2022, the Internal Model VaR amounted to EUR 19.2 million on average versus EUR 17.2 million for the SVaR. The fact that the average HVaR was higher than the SVaR was a result from the incorrect model behaviour during most of the year. At EOY however, after the model change, the SVaR was more than twice the HVaR.

The other market risks are treated under the Basel Standardized approach.

Further details are provided in the Risk report annex (Tables MR1, MR2-A, MR3 and OV1).



The aim of back testing is to test the accuracy and the mathematical soundness of the internal market risk measurement methodologies by comparing the calculated market risk figures with the volatility of the actual results. Back testing is a prerequisite for Belfius Bank since we use internal models to calculate the regulatory capital requirement for some market risks.

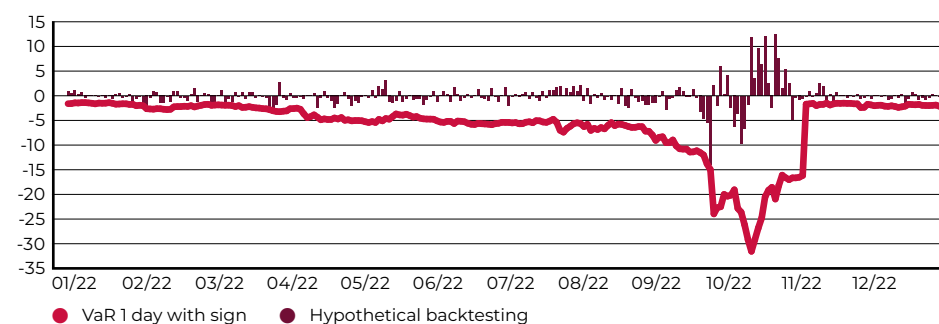
The result of the back test is the number of actual market losses greater than their corresponding VaR figures (i.e. "the number of exceedings"). According to this number, the regulators will also decide on the multiplier to be applied for determining the regulatory capital requirement for market risks.

Currently, two types of back testing are processed at Belfius Bank:

- Hypothetical back testing compares the hypothetical results of the portfolio's end-of-day value and, assuming unchanged positions, its value at the end of the subsequent day. This result is therefore without any provisions adjustments and other non-involved risk factors. The holding period is one day. During 2022, there were 2 negative exceptions to the hypothetical back testing.
- Real back testing compares the portfolio's end-of-day value and its actual value at the end of the subsequent day excluding fees, commissions, and net interest income. In 2022, there were 3 exceptions to the real back testing.

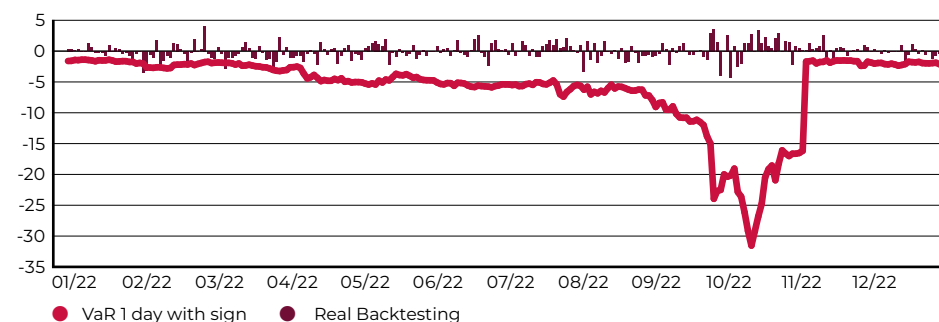
### Hypothetical Back Testing

In EUR million



### Real Back Testing

In EUR million



The back-testing processes provide therefore a view on the number of (hypothetical and real) exceptions. The maximum between these two numbers is taken into account to adjust the VaR & SVaR multiplier used for calculating the Bank's risk capital requirements for market risk under the internal model approved by the regulator. The three actual exceptions are below the regulatory maximum of 5 for an add-on.

At the end of 2022, the RWA for market risk under the internal model approach was EUR 2.6 billion and EUR 0.4 billion for standardised approach.

The charts on the previous page show real and hypothetical back testing in 2022 for interest rate and foreign exchange perimeters.

## V.3.7. Validation

Validation is responsible for the independent overall assessment of the market risk and valuation models. The process set up to endorse the validation of models deployed within Belfius Bank is multi-layered, ensuring compliance with regulatory requirements. Validation controls the models from a methodological but also an operational (implementation, usage) viewpoint. It intervenes prior to the first use of a new model or of any significant change of an existing model. It also reviews periodically the performance of the models. Validation works are summarised in reports indicating the controls that were performed, their findings, proposed corrective actions and a validation status.

The decisions regarding the Market models are taken by the FMFV Committee composed amongst others of the Head of Market Risk, the head of Dealing Room, the head of Accounting and the head of Validation.

The FM FV reports the main topics to the FMC itself composed of the CRO, the CFO, the Board Member in charge of Financial Markets and their direct reports in charge of Market activities:

- green light to put new models or model updates in production;
- endorsement of the corrective action plans recommended by Validation.

Once a year the Management Board and the Risk and Audit Committees are informed of the status of the Market Models (evolutions, points of attention, outlook).





### V.3.8. Systems and controls

On a daily basis, FM Risk Management follows up, analyses and reports the risks and results of the FM desks. On a monthly basis, the FM Committee (FMC) meets to discuss the risks and results, the market limits, procedures, guidelines and policies and approves or amends new valuation methodologies.

All market activities are backed by specific guidelines describing the objectives, the authorised products, sensitivity, VaR and/or outstanding limits. The systems and controls that are established within Belfius are described in various procedures to ensure a complete and formal framework that is established to support all market risk responsibilities.

### V.3.9. Valuation

Within Financial Markets we have financial instruments with complex features and sometimes limited liquidity that are valued using internally developed pricing models. To avoid Valuation errors, a sound valuation risk framework is therefore of utmost importance. Different components are key to limit the risk: validation policy, model change policy, market data policy, IPV process and Value Adjustments guidelines.

The above ensures that all models used are validated by an independent team, that changes brought to the models, when material, are correctly reviewed by an independent team, that the data that feeds the models is correctly controlled, that independent price reviews are conducted (e.g. consensus exercise, alternative price sources, collateral controls) and that, when required, value adjustments are applied in the fair value. All those elements are further detailed in section 9.1.5. Valuation techniques and data (level 1, 2 en 3) of the financial statements.



In addition to the above, an important building block for a Valuation Risk framework is Prudent Valuation. Additional valuation adjustments (AVAs) are designed to ensure that institutions prudently value their fair-valued financial instruments. The prudent value is the value at which institutions are 90% confident that they will exit a position based on the applicable market conditions at the time of the assessment.

Belfius uses the core approach to calculate its AVA. This approach prescribes the calculation of 9 AVAs, referring to different sources of valuation uncertainty, as the excess of valuation adjustments required to achieve the prudent value:

- Market price Uncertainty (MPU)
- Close out Costs (CoC)
- Model risk (MoRi)
- Unearned credit spread (UCS)
- Investing and funding costs (IFC)
- Concentrated positions (CP)
- Future administrative costs (FAC)
- Early termination (EaT)
- Operational risks (OpR)

The prudent valuation scope includes all fair-valued positions, regardless of whether they are held in the trading book or banking book. Positions for which a change in accounting valuation has no impact on CET1 capital are excluded.

Belfius computes, for market price uncertainty, close-out costs and model risk category-level AVAs, individual AVAs for separate valuation exposures. Those are then aggregated to provide total category-level AVAs using the Method 2 provided in the Annex to the Delegated Regulation 2016/101. Unearned C-redit Spread and Investing and Funding Costs AVAs are split into their MPU, CoC and MoRi components.

In 2022, the AVA results were relatively stable with a small increase from EUR 62 million to EUR 64 million, mostly coming from increased model risk. This remains a drastic reduction compared to EOY 2020 when total AVA stood at EUR 74 million, but with a higher diversification factor, or EUR 125 million with the same diversification factor as applied for 2021 and 2022.

Details can be found in table PV1.



# VI. Liquidity risk

During 2022, Belfius maintained a comfortable liquidity position with an LCR at 173%.

The commercial activities delivered a stable status quo as the increase of deposits has been similar to the increase of the outstanding of commercial loans, leading to a Loan/Deposits ratio of 87%.

- Belfius partially repaid its participation to the T-LTRO & reached a total amount of T-LTRO III funding of EUR 6.0 billion at the end of the year.
- The net cash collateral position improved with EUR 4.6 billion due to increasing interest rates.
- Belfius issued EUR 0.5 billion Mortgage Covered Bonds.
- The MREL requirements were well respected during 2022.

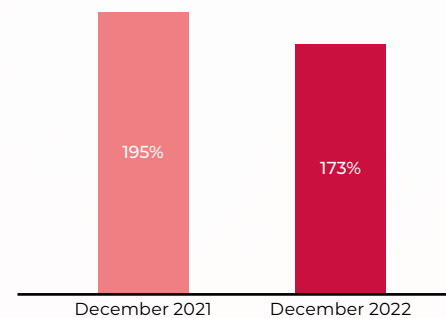
## Definition

The liquidity risk at Belfius Bank is mainly stemming from:

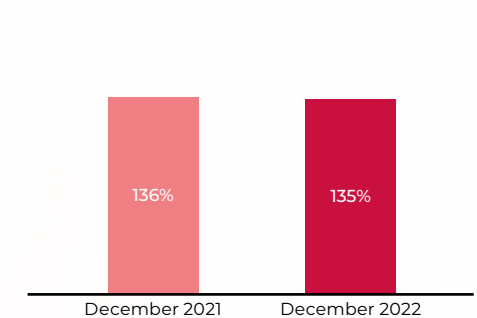
- commercial funding collected from customers and the way these funds are allocated to customers through different types of loans/products;
- the volatility of the collateral that is to be deposited at counterparties as part of the CSA framework for derivatives and repo transactions (so called cash & securities collateral);
- the value of the liquid reserves by virtue of which Belfius Bank can collect funding on the repo market and/or from the ECB;
- the capacity to obtain interbank and institutional funding;
- concentration risk of funding sources, counterparties and maturities.

## LCR & NSFR

### LCR<sup>(1)</sup>



### NSFR



(1) Calculation based on 12 months average



## Governance

Liquidity risk is managed on a consolidated level, which includes the bank, its subsidiaries and branches as well as the vehicles for securitization. Asset and Liability Management (ALM), a division situated within the scope of the Chief Financial Officer (CFO), is the first line manager for the liquidity requirements of Belfius Bank. This team is responsible for identification, analysis and reporting on the current and future liquidity positions and risks, it defines and coordinates funding plans and actions. The second line of controls is performed by the ALM and Liquidity Risk team, falling under the CRO responsibility, consisting in establishing the risk and control framework overseeing the first line of defence, ensuring thereby that risk management and control processes are properly designed and effectively operating. The third line of defence guarantees the independent assurance on the adequacy and the effectiveness of the governance, risk management and controls performed around liquidity risk.

## Risk framework

The Belfius liquidity risk management framework is articulated around several building blocks.

First, risk identification process ensures that evolution of risks is appropriately and proactively captured and emergence of the new risks enters our risk management framework in a timely manner.

In terms of the risk measurement, Belfius relies on a close monitoring of a set of regulatory and internal liquidity risk metrics as part of its Risk Appetite Framework defined with the following main objective: “Belfius wants to maintain at all times sufficient liquidity even after severe but plausible stress”. The Liquidity Coverage Ratio (LCR), the Net Stable Funding Ratio (NSFR) and the Asset Encumbrance ratio (AE) are the regulatory metrics in its scope. The risk appetite framework imposes an additional buffer on top of the regulatory minima to be respected at all times. This buffer combined with a set of predefined recovery measures ensures that Belfius will respect regulatory minima even under stress.

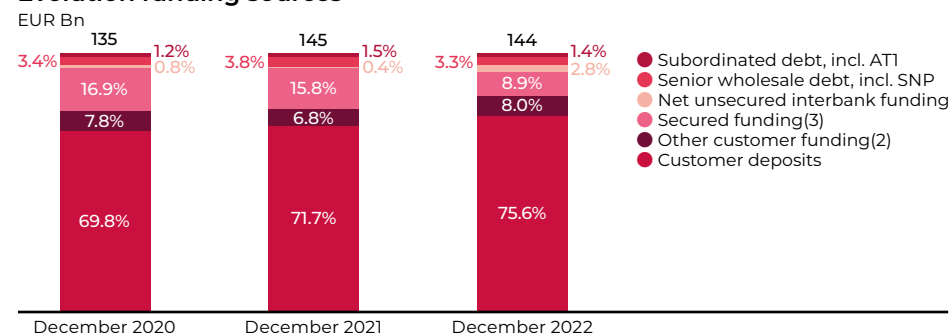
Another control of the second line of defence includes the early warning system that proactively warns for potential liquidity crisis. By means of a detailed Liquidity Risk Dashboard, internal KRI's are continuously monitored and include, among others, maturity concentration of funding, intraday liquidity risks, credit lines and liquidity buffer under stress. Belfius also relies on forward-looking assessment as part of its financial plan and stress testing activities to account for concentration risks, clients behaviour prospective challenges to address potential future non-maturing deposits' outflows or simulation of bank runs. That way, Belfius ensures to have a sufficient liquidity buffer while accounting for materialization of some tail risks.

The Belfius Bank liquidity risk management framework ensures that risk assessments, reporting's and proper follow-up's are performed to ensure that our liquidity buffer is sufficient to cover extreme stress scenarios based on a large set of assumptions on the levels of inflows, outflows, risk source and at different time horizons (ranging from intraday to complete stress on the funding plans), while respecting the limits defined in our RAF.

## Wholesale funding

Belfius is focusing on ensuring well-diversified funding sources as well as well-diversified investor base. In view of the business model of Belfius, customer deposits (all segments) represent around 75% of funding sources of which individual deposits represent 62%, while deposits from professional clients account for 38%.

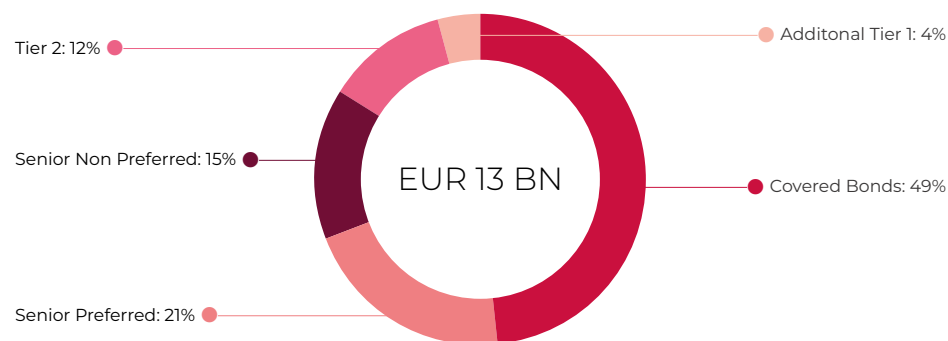
## Evolution funding sources





Belfius has access to several wholesale markets: mid/long-term (MTL) & short-term funding and secured & unsecured funding. This complements the customer funding ensuring a diversified funding mix in terms of type of funding, maturities and seniority. During 2022, Belfius Bank issued EUR 0.5 billion mortgage Covered Bonds.

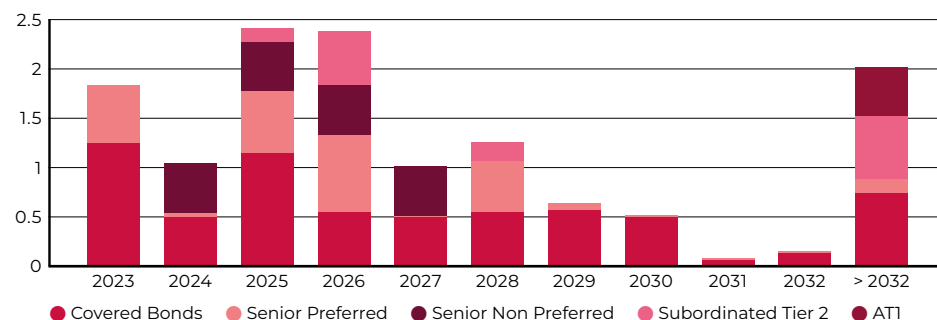
### MLT wholesale funding strategy



Wholesale funding is also subject to a close risk monitoring process due to the fact that this type of funding is quite volatile especially in stress periods. Amongst others, maturity concentrations of wholesale funding are closely monitored and constrained based on limits in order to avoid an important appeal on wholesale funding in case of stressed financial markets.

### Redemption profile MLT wholesale funding

In EUR Bn



Overall, Belfius' strategy in terms of liquidity risk management is to be the bank with a low risk profile by maintaining a conservative level of buffers and a diversified funding mix.

### MREL

The MREL requirements were well respected without additional issues in 2022. MREL requirements will increase in 2023 in line with asset production and stricter supervisory requirements. As a result, Belfius will resume the issuances for MREL purposes in 2023.

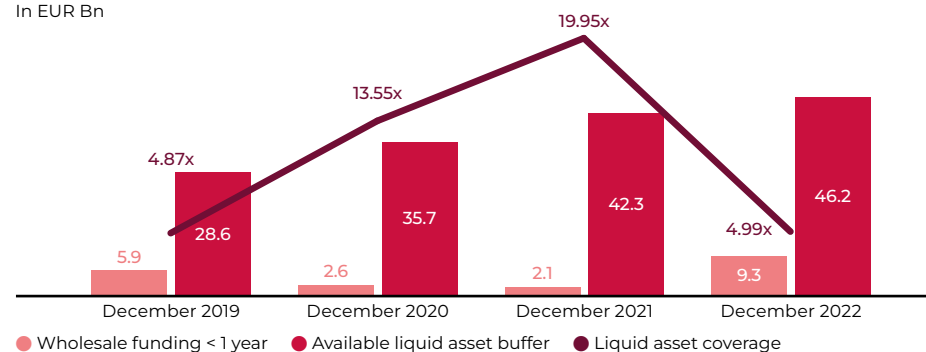
### T-LTRO & ECB collateral

The ECB started to phase out the covid measures with regard to the collateral that can be used to obtain or maintain the ECB funding. To compensate for the loss in collateral value due to the phasing out, Belfius Bank has issued retained covered bonds.

Given the T-LTRO III repayment of EUR 9.7 billion in 2022 on a total of EUR 15.7 billion, more short-term wholesale funding has been attracted than previous years (from EUR 0.9 billion end 2021 to 3.8 billion end 2022 mainly in CP/CD with a horizon less than 1 year).

### Liquidity coverage reversion to standard state

In EUR Bn



For more specific information on liquidity risk we refer to the risk report annex (Tables LIQ1, LIQ2, Liq A and LIQ B).





### Looking forward:

The era of high liquidity is coming to an end, which draws attention to specifics points :

- Rising liquidity costs lead to forward-looking issuance challenges in the coming years (costs, timing, ...) to manage our funding, liquidity and MREL requirements.. Particular attention will be paid to the timing of issuances (Senior, AT1) in this period of rising rates and high volatility.
- The gradual phasing out of the ECB collateral easing measures for which Belfius does not expect liquidity issues remains nevertheless under close monitoring and is regularly challenged. This is mainly due to the fact that the ECB collateral pool is going to be significantly reduced by the early termination of the last T-LTROs tranches on the medium term.
- Forward-looking assessment of client behaviour with respect to volume transfer on non-maturing and maturing deposits and the impact on offer, pricing and strategy.
- Management and monitoring of concentrations, mainly in the public segment.

## VI.1. Covered bond activity

Belfius Bank has set up 2 programmes for the continuous offer of Belgian pandbrieven (Belgische pandbrieven/lettres de gage belges) in accordance with the legal framework for Belgian covered bonds, i.e. a Mortgage Pandbrieven and a Public Pandbrieven programmes.

The main asset class of the special estate of the Mortgage Pandbrieven programme consists of residential mortgage loans that were originated by Belfius Bank. The main asset class of the special estate of the Public Pandbrieven programme consists of public sector loans that were originated by Belfius Bank.



The main characteristics of those 2 programmes are provided in Appendix XI.3.2. and XI.3.3.

## VI.2. Securitisation activity as originator

The securitisation activity as investor is described in the Section IV.6.2.



The steering of the set-up for securitisation transactions is performed by the FIG (Financial Institutions Group) & Structured Finance department with the support of the dedicated organisation/project management departments. As such, both prior to and after the closing of a transaction, transversal task forces are set up including all relevant departments, such as accounting, asset and liability management, credit risk, market risk, back-office, transaction processing, etc.

Post-closing, the transaction follow-up concerns the efficiency and effectiveness of the servicing, the appropriate monitoring of the transaction from a credit, market and liquidity risk perspective on the one hand and the reliability of the reporting being produced on the other hand.

All outstanding transactions were carried out with a view of obtaining long-term funding or establishing a liquidity buffer.

No assets have been originated with the intention to securitise. The underlying assets have been originated in the regular course of lending business to retail, public and corporate customers of Belfius Bank. Only performing assets are included in the securitisation transactions. No profit or losses are realised upon sale of the assets to the Special Purpose Vehicle.

Engaged ECAs include Moody's, Fitch Ratings, Standard & Poor's and DBRS.

The table below summarizes the securitisation activity (Belfius Bank as originator): amount of exposure securitised, gains and losses on sales during the period, amount of underlying assets (amount of defaulted assets disclosed separately) originated by Belfius Bank segmented by nature of securitisation and type of underlying assets.

The main evolution in 2022 is the early optional redemption of the Penates-6 and the Mercurius-1 transactions, as well as the continued amortisation in the underlying portfolios of assets securitised.



For more specific information on Belfius 'Securitisation activity as originator' we refer to Table EU SECA in the risk report annex.

31/12/2022	Residential mortgage loans	Public sector loans	Corporate & SME exposures	Total
(In EUR million)				
<b>TRADITIONAL SECURITISATIONS</b>				
Underlying assets		613		613
Defaulted assets <sup>(1)</sup>		0		0
of which exposures securitised in 2022 <sup>(2)</sup>				0
Gains and losses on sales in 2022	0		0	0
<b>SYNTHETIC SECURITISATIONS</b>				
Underlying assets				
Defaulted assets <sup>(1)</sup>				
of which exposures securitised in 2022 <sup>(2)</sup>				
<b>RELATED SPVS</b>		DSFB (DSFB-2)		

31/12/2021	Residential mortgage loans	Public sector loans	Corporate & SME exposures	Total
(In EUR million)				
<b>TRADITIONAL SECURITISATIONS</b>				
Underlying assets	2,559	680	636	3,875
Defaulted assets <sup>(1)</sup>	4	0	14	18
of which exposures securitised in 2021 <sup>(2)</sup>	0	0	0	0
Gains and losses on sales in 2021	0	0	0	0
<b>SYNTHETIC SECURITISATIONS</b>				
Underlying assets				
Defaulted assets <sup>(1)</sup>				
of which exposures securitised in 2021 <sup>(2)</sup>				
<b>RELATED SPVS</b>	Penates Funding (Penates-6)	DSFB (DSFB-2)	Mercurius Funding (Mercurius-1)	

(1) Amount of defaulted assets (as of the date of default) using the definitions used in the securitisation transaction.

(2) Gross amount of exposure (as of year end based on reference obligations).

## VI.3. Encumbered assets

The regulatory consolidation scope used for the purpose of the disclosures on asset encumbrance is the same as the scope retained for the application of the liquidity requirements on a consolidated basis as defined in CRR.

Following the EBA instructions, the unused part of pledged assets (i.e. the part above the minimum amount required by the counterparty) should not be considered as encumbered. It is the case, for instance, for the collateral pledged to the ECB.

Following the EBA guideline and based on the median values of the encumbrance reportings of the last four quarters, the encumbered assets at Belfius Bank amounted to EUR 40.8 billion end 2022. This represents a decrease of EUR 6.1 billion compared to end 2021. The asset encumbrance ratio based on the median values amounted to 22.3% at the end of 2022. The decrease is mainly due to the decrease of collateral need for the derivatives exposure and allowed the ratio to return below the limit of our internal RAF Level 2 indicator (first limit set at 25%).

The encumbered assets are located within Belfius Bank, which is the only banking entity of the group generating encumbrance. The main sources of encumbrance are linked to the T-LTRO for a median amount of EUR 20.7 billion (EUR 6.5 billion at end 2022 that leads to encumbered assets of EUR 7.9 billion) and the collateral pledged (gross of collateral received) for the derivatives exposures for EUR 5.4 billion median value (decrease with EUR 5.7 billion compared to end 2021), under the form of cash or securities. A significant part of collateral is financed through collateral received from other counterparties with whom the Bank concluded derivatives in the opposite direction.

Other main sources of encumbrance for funding purposes are loans in cover pools underlying covered bonds issues (EUR 7.9 billion median).

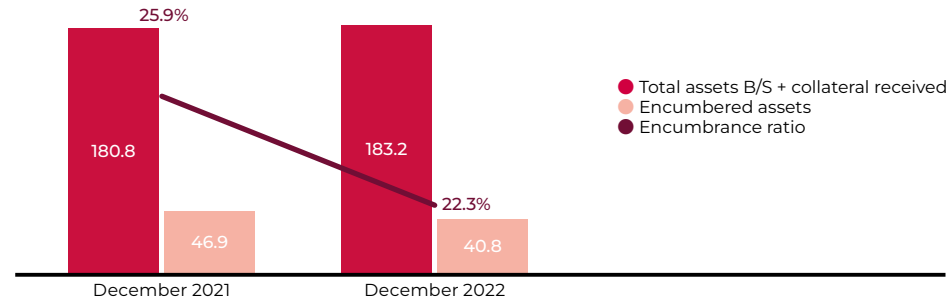
Given that no other currency is representing more than 5% of total Belfius liabilities, all encumbrance figures are computed in EUR.



Further details are provided in the Risk report annex (Tables AE).

### Encumbered assets

In EUR billion



## VI.4. Liquidity risk at Belfius Insurance



For the liquidity risk at Belfius Insurance, we refer to the dedicated section in the Belfius' Management report, chapter Risk management.



# VII. Non-Financial Risk

As in recent years, non-financial risks have increased further in view of the evolution of external threats (cyber, fraud, outsourcing, IT, climate, geo political) in a VUCA world. Belfius' ambitious strategy 2020-2025 also reinforces the emergence of the different types of non-financial risks, requiring a reinforcement of the NFR Risk Framework, including the enhancement of the internal controls.

In 2022, after an adequate management of the Covid-19 crisis, a deep focus has been made on the geopolitical crisis and energy situation to ensure good resilience capabilities for Belfius. In this challenging context, with notable increase of cyber and fraud risks, Belfius showed again its high resilience and low risk profile, with operational losses remaining far in the green range of our Risk Appetite Framework.

Building up on the initiatives taken in 2021 in order to strengthen the management of non-financial risks, further improvements in the overall NFR risk framework have been implemented in 2022 by developing new frameworks and enhancing existing ones like the Permanent control framework, the new Project risk management framework, the Information Security Management System (ISMS) and the Third Party Risk Management framework.

With regards to Compliance, in 2022, major updates have been made to the control framework regarding special mechanisms. In the Anti Money Laundering (AML) domain, a new AML based transaction monitoring system has been implemented based on the latest Artificial Intelligence technology. Furthermore, international transactions falling under the sanctions and embargo's screening have been optimised to cope with the increasing workload induced by the Russian invasion of Ukraine.

## Definition

The term Non-Financial Risk (NFR) must be understood as a broad umbrella covering among others operational risks (including fraud, HR, IT, IT security, business continuity, outsourcing, data-related risks, privacy ...) as well as reputational, compliance, anti-money laundering, legal risks, etc.

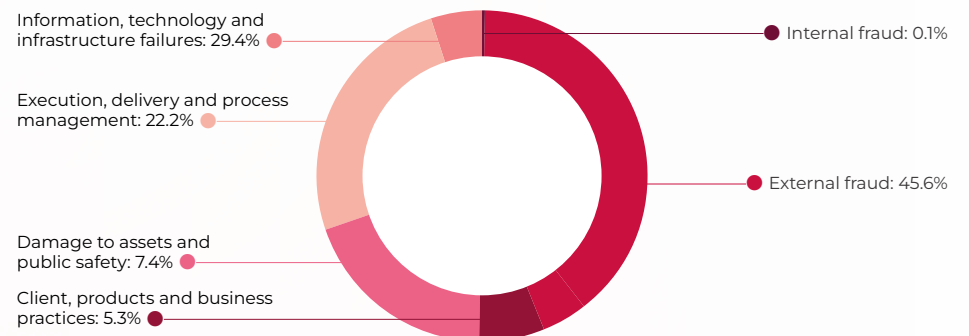
## Average annual potential net losses from operational incidents (2020-2022)

EUR  
**2.53** million

**3.4%** of events represent  
**95%** of impact

## Operational incidents

Breakdown of total losses by standard category of incidents over the past three years at Belfius Bank





## VII.1. Fundamentals of Non-Financial Risk in 2022

As in recent years, non-financial risks have increased further in view of the evolution of external threats (cyber, fraud, outsourcing, IT, climate, geo-political) in a VUCA world. Belfius' ambitious strategy 2020-2025 also reinforces the emergence of different types of non-financial risks, requiring a reinforcement of the NFR Risk Framework, including internal controls. In this context, the new Permanent Control functions are playing a leading role in the 1LoD risk management by ensuring that risks are correctly identified and that all internal controls are well implemented and operative.

In terms of non-financial risks, traditional operational risks are under control, while IT-related risks remain a focal point of attention in 2022.

In 2022, the successful management of non-financial risks continued thanks to a.o. the following NFR realisations:

- Definition of new frameworks:
  - **Permanent control framework** with the establishment of a Internal Control Forum in order to foster coordination between control functions and set the fundamentals of a combined assurance.
  - **Project risk management framework** with a focus on strategic programs
  - **Information Security Management System (ISMS)** with a prioritization of controls to be implemented
  - **Third Party Risk Management** with a reviewed framework including the whole life-cycle management of third parties on a risk-based approach. This framework will be further rolled out in 2023.
- Revision of the New Product Approval Process (NPAP)
- Realisation of exercises and scenario analyses in order to improve the level of preparation regarding Ukraine crisis, cyber attacks or energy shortage risk
- Fraud management improved the coordination of 1st line initiatives and challenged the proposed solutions in line with the global strategy
- Support the business to assess and realize the Schrems II-compliance of their contracts with regard to personal data transfer of or access from outside the EEA.
- The extension of the Risk Appetite Framework on a conglomerate level with alignment of qualitative and quantitative NFR indicators.

As a conclusion, Belfius proved its resilience in 2022 in the field of NFR management and is confident to further enhance the NFR framework so that Belfius resilience can further be improved also against unexpected events.

## VII.2. Non-financial risk – operational risk

### VII.2.1. Non-Financial Risk Management Framework

Non-Financial Risk (NFR) must be understood as a broad umbrella covering all risks except “financial risks” (the latter encompassing market, ALM, liquidity, credit, and insurance risks). NFR covers among others operational risks (including fraud, HR, IT, IT-security, business continuity, outsourcing, data-related, privacy ...) as well as reputational, compliance, legal, tax, ESG, ... risks.

The NFR management framework determines the principles that ensure an effective management of the non financial risks. The principles are further elaborated in specific policies and guidelines adapted to the business activities. These general principles are following the applicable legal and regulatory requirements.

The framework is based on the following pillars:

- a risk mapping and taxonomy in order to ensure consistency within the organization, including a regular review of this mapping and taxonomy to identify emerging risks;
- clear roles and responsibilities, as well as a well-defined way of working together for all the risks based on the three LoD (3 LoD) model (decentralized responsibility);
- a strong governance/committee structure involving the appropriate level of management;
- a Risk Appetite Framework (RAF) definition and monitoring;
- transversal risk processes and dedicated risk management frameworks, which are structured into the following main domains: Change Risk Management, Integrated Risk Management, Risk Culture & Governance, Operational, Resilience, Information Security and Data Privacy (see further).



This framework provides comprehensive risk management and sound risk governance, to ensure an effective and efficient identification, assessment, mitigation and monitoring of non-financial risks.

The NFR department acts as an independent internal control function with a 2nd LoD role, and reports directly to the Chief Risk Officer. The NFR departments also includes the specific functions of Data Protection Officer (DPO) and Chief Information Security Officer (CISO).

The reporting, is – besides several specific reports - mainly covered via a dedicated chapter in the Quarterly Risk Report or via dedicated sessions to the Management Board (also called NFR Committee) and senior management. For the various NFR risk sub-committees, we refer to annex XI.4.1.

For capital calculation, the “Standardised Approach” is used (see also section I.1.1).

## VII.2.3. Transversal risk processes – NFR domains

### VII.2.3.1. NFR domain - Change risk management

#### 1.1. Change Risk Management

Being and staying ‘inspiring and meaningful for the Belgian society’ implies continuous innovation. In that context, change risk management is a corner stone of the global risk management framework, with the New Product Approval Process (NPAP) and Project Risk Management as the main contributions.

#### 1.1.1. New Product Approval Process

The process of developing or changing a function (product, service, activity, process, or system) involves a sound (ex-ante) risk assessment, the so-called New Product Approval Process (NPAP). Its purpose is to ensure that all risks related to any new or changed function are assessed by relevant experts and addressed accordingly and that they are overseen by a dedicated steering committee.

In 2022, the process has been further enhanced with a more risk-based and proportional approach and with special attention to the due implementation of binding conditions.

#### 1.1.2. Project Risk Management

The capacity to deliver projects with high quality standards within the foreseen timeframe is a key success factor. In that context, a new Project Risk Management (PRM) framework has been developed in order to correctly and timely identify the risks and put in place the necessary controls and mitigating plans following a risk-based approach. Basically, this framework consists of:

- different qualitative and quantitative assessment techniques to derive both the criticality and risk performance of the projects, and;
- a tiering system to focus efforts and attention to the most risky ones. This framework has been fully applied for all strategic programs and their sub-projects on the Q4 situation, and the outcomes have been integrated into the Strategic Project Reporting to the Board of Directors.

### VII.2.3.2. NFR domain – Integrated risk management

#### 2.1. Incident Management

The systematic collection and control of data on operational incidents is one of the main requirements of the Basel Committee regarding operational risk management.

The reporting mechanisms ensure that the responsible parties are notified quickly when incidents occur. Major incidents are investigated thoroughly and are reported to the CRO/Management Board. Such incidents are also subject to specific action plans and appropriate follow-up, under the responsibility of the concerned line management, for avoidance, mitigation, or limitation of the related risk.

For the period 2020-2022, Belfius Bank’s average annual potential net losses stemming from operational incidents amounted to EUR 2.53 million<sup>(1)</sup>. The main areas of operational losses remain essentially due to incidents associated with external fraud and incidents in relation to execution, delivery, and process management. Other categories remain limited in amount but not necessarily in number of events. The most important part of the financial impact resulting from operational incidents comes from the Bank’s retail business.

<sup>(1)</sup> Losses incurred by clients are not included.



## 2.2. Self-Assessment of Risks and Internal Controls

Another important task of risk management is the analysis of the overall main potential risks and related key controls, performed within Belfius Group's main entities. This is achieved through a bottom-up Self Assessment of Risks and Internal Controls (SARIC) in all departments and subsidiaries, using the COSO methodology to determine the internal control level. These exercises may result in the development of additional action plans to further reduce potential risks. They also provide an excellent overview of the main risk areas in the various businesses. They are conducted annually, and the results are submitted to the respective Boards of Directors through the reports regarding the assessment of internal control. Belfius Bank also submits the senior management report on the assessment of the internal control to its regulators.

In 2022 the risk profile is quite stable in terms of identified major (inherent) risks and remains acceptable regarding level of both quality of controls and residual risk profile.

## 2.3. Fraud risk management

Belfius applies a zero-tolerance policy for all forms of fraud (internal, external, and mixed fraud schemes), monitors the threats continuously and manages these risks based on a global anti-fraud policy as defined and steered by senior management. The roles and responsibilities have been clearly defined with business and support lines as the first risk managers. The CRO and NFR team, including the Anti-Fraud Officer as expert, have a clear 2nd LoD role.

In a context of evolving digital channels and faster payments processing, internal controls are continuously screened to prevent fraud and this to protect the interests of Belfius and its employees, customers, suppliers, and other stakeholders. More traditional Phishing techniques and cyber fraud cases need continuous investments to protect clients against potential impacts from these fraud schemes.

The sharp increase in Phishing cases has resulted in a specific anti-fraud program, including all stakeholders (mainly PBR) and Risk with focus on a.o. more awareness, increased global and personal communication, better detection tooling, as well as the implementation of a 24/7 availability for clients.

Moreover, an anti fraud expert panel is regularly organized to enhance the transversal circulation of information and to ensure that the Anti-Fraud Steering Committee (A-FSC) receives the information necessary for defining & monitoring the anti-fraud risk management.

## 2.4. Managing insurance policies

The possible financial impact of Belfius' operational risks is also mitigated by taking insurance policies, principally covering professional liability, fraud, theft, and interruption of business and cyber risk. This is standard practice in the financial services' industry.

## 2.5. Outsourcing risk

Belfius is aware that outsourcing & third-party risk must be addressed adequately and fully assumes its responsibilities, including but not limited to overseeing and managing the concerned arrangements and the risks involved. The Outsourcing Risk & Material Arrangements Policy is compliant with the "Final Report on EBA Draft Guidelines on Outsourcing Arrangements". In particular, the policy provides for the appointment of the outsourcing function and the setup of the Outsourcing Management (steering) Committee (OMC). Its mission consists in ensuring a well governed and coordinated outsourcing strategy in line with Belfius strategy, risk appetite and regulatory requirements. In 2022, the framework has been thoroughly revised, including a new target operating model and an extended coverage for all third parties (vendors, suppliers, partners, etc.), which will further ensure their life-cycle (risk) management from engagement to termination, based on a new risk-based approach.

## 2.6. Permanent control

It is difficult to envisage risk management without taking special attention to the internal systems control. In order to provide additional ongoing assurance on the adequacy & effectiveness of the Belfius' control environment, the permanent control function has been further deployed in the business lines. The permanent control teams were initiated in 2021. The framework of the activity - in the context of the 3 LoD model - is further being enhanced.

In addition to the organisational deployment of the permanent control function, a campaign has been launched to test the main controls within the Bank and evaluate them on appropriateness, effectiveness and efficiency.



### VII.2.3.3. NFR domain – Risk culture & governance

#### 3.1. Risk appetite

The formal definition of a Risk Appetite Framework (RAF) is the key reference for the group Risk Management practice covering both financial and non-financial risks.

The RAF for NFR contains quantitative elements (target values or ratios) and qualitative elements (statements) and is articulated around three concepts on which limits are defined:

- “Risks”: What are the risks? How to appreciate the risk level (past and forward looking)?
- “Risk management capacity”: What is the capacity to manage the risks?
- “Loss tolerance”: What are the potential P&L and future RWA impacts Belfius tolerates?

The RAF covers o.a. loss tolerance, management capacity, fraud risk, data privacy risk, outsourcing & third-party risk, resources risk, project/transformation risk, information security.

The RAF is continuously updated and improved regarding RAF indicators, with constant challenging at the governance level and an improving level of maturity.

In order to further strengthen the conglomerate dimension, in 2022, the RAF roll-out in the subsidiaries has been updated. These RAF's are based on the RAF at group level, reflecting and monitoring the own (financial and non-financial) vulnerabilities and risks of each subsidiary.

### VII.2.3.4. NFR domain – Operational resilience

#### 4.1. Business continuity & crisis management

Belfius is committed to its clients, counter-parties, and regulators to put in place, maintain and test viable alternative arrangements that, following an incident, allow the continuation or the resumption of critical business activities at the agreed operational level and entirely compliant with the Belgian regulation.

The supporting process, the business continuity and crisis management, is aligned with the ISO22301 standard and the BCI Good Practice Guidelines. It is applied in a uniform way at all Belfius entities and relies on a.o. threat analysis, business impact analysis, reallocation strategies (dual office, remote and homeworking, etc.), effective management reporting, business continuity plans as well as exercise and maintenance programs. In that way, Belfius has also demonstrated its resilience to the Covid-19 situation.

As the Covid-19 situation allowed a more normal way of working, several exercises have been performed in order to test our ability to react. Moreover, several table top exercises have been organized to test our capacity to react to tail risks:

- reverse BCP in case of telework failure, for which all departments were able to restart or continue their critical activities in due time;
- Resolution planning according to SRB expectations; and
- Ransomware attack with Technology to fine tune crisis management and decision trees.

Consequently, the Business Continuity Management of Belfius proves to be a very mature process guaranteeing the institution's future resilience.

### 4.2. Employment Practices (HR) & Workplace Safety, Damage to Assets & Public Safety risk

Belfius has a very low appetite for physical security and workplace safety risks and strives to provide a safe environment for its staff, clients, guests, and assets by ensuring that its physical security measures and procedures meet high standards. To meet this goal, a Physical Security Steering Committee with all stakeholders systematically monitors the overall situation by means of a dashboard. It also acts as a forum to reflect and to dialogue on actual incidents, and to envisage action plans to reduce the risk to acceptable levels.

### VII.2.3.5. Information security management

For Belfius, the purpose of information security is to protect Belfius' information having a value for the organization: i.e. the information generated by the business, the information belonging to our clients, and also the information, derived from freely accessible or publicly available data, which has acquired a value as a result of the treatment carried out by or on behalf of Belfius. The threats against data and information are their loss of integrity; of confidentiality; and their unplanned unavailability. The mission of information security is to safeguard against these threats.

Belfius also considers that the objective regarding information security extends to managing the risks linked to the consequences of these threats if they have materialized in terms of customers' trust, finance, reputation, peer confidence (regulators, financial markets) and confidence of our business partners. An information security strategy derived from these principles is applicable to all actions pertaining to information security.

In order to guarantee the information security within Belfius, the Information Security Steering (ISS) Committee, managed by the Chief Information Security Officer (CISO) and chaired by the Chief Risk Officer, ensures a well governed and coordinated information



security strategy whereby an adequate system of “prevention”, “detection”, “protection” and “reaction” is put in place, in line with regulatory requirements for information security. The steering of Belfius information security is relying on a combination of qualitative statements, tangible figures, and quantitative statements: deviations from the risk appetite are challenged to mitigate the risks to an acceptable level. Large security projects are grouped together in a security roadmap which typically spans the course of two years.

In a context where external environment is more and more threatening, a sophisticated Information Security Management System (ISMS) has been concretized in 2022, which provides a comprehensive framework of controls that manage information security and risks systematically and across the organization. More concretely, hundreds of ISMS controls have been defined around 6 main domains (Compliance, Technology, Assets, Organization & Governance, People, Authentication & Access & Physical protection) and their respective maturity level assessed. Some of them have been prioritized for implementation or improvement to further increase Belfius' maturity in terms of control and security

#### VII.2.3.6. Data privacy management

##### 6.1. Data privacy Respect for privacy and customer satisfaction

The respect for privacy and the protection of personal data is a key commitment at Belfius, which is translated into a sound internal governance and principles to be followed in the respect of GDPR.

In order to continuously guarantee data privacy within Belfius, the Privacy Committee related to GDPR regularly meets. Belfius' Management and several committees are informed about GDPR on a recurrent basis at Belfius.

Staff needs to regularly update their GDPR knowledge and are also regularly informed on GDPR-news.

The Data Privacy Officer (DPO) is part of the 2nd line of defence. A network of privacy correspondents, active in each department, work closely with the DPO to continuously raise awareness, control, and monitor processes and activities being in line with GDPR.

GDPR conformity, including a risk assessment for the rights and freedom of the owners whose personal data is treated, is integrated into every process to offer (existing, adapted, and new) products, innovative digital tools, services, and information sharing to its clients.

This also included and includes the review of the privacy notice, the implementation of an adapted cookie policy and the implementation of the ruling of the European Court of Justice on eventual international transfers or international access of personal data.

All activities treating personal data are documented by the business lines in a privacy register and Belfius is very committed to avoid personal data breaches and to manage any incident as quickly as possible.

Data subject rights can be executed by data subjects via multiple possibilities, including the Belfius' online and mobile applications. More than 98% of the data subject rights are asked via the Belfius' online app and receives an answer in the same app within 1 business day.

## VII.3. Business, strategic & execution risks

### VII.3.1. Business risk

#### Definition

Business risk reflects the unexpected decrease of profitability (emerging from day-to-day operations) compared to the expected (or budgeted) plan resulting from changes in competitive environment, lack of responsiveness to changes in the business environment (macroeconomic, regulations, client behaviour, competitive landscape, socio-demographic, climate, ...) or adverse/ improper implementation of business decisions.

#### Organisation and management of the Risk

The business risk is at the heart of the daily management of the Bank. Indeed, management control, as an independent department, is responsible for the consolidation of data necessary to calculate income, expenses and profitability, as well as related reporting. Additionally, with regards to the Financial Plan, sensitivity analyses and stress-testing are executed to tackle the business risk in a forward-looking manner.



### Capitalisation

Business risk is not capitalized through Economic Capital but treated through Earnings at Risk and Stress Testing frameworks.

## VII.3.2. Strategic risk

### Definition

Strategic risk is defined as the current or prospective loss of value arising from adverse business decisions or the lack of responsiveness to changes in the business environment. Strategic risks are related to the long-term success of the strategy and often focus on the adequate risk/opportunity balance.

### Organisation and management of the Risk

The steering of future profitability as well as the strategic vision and strategic risks are operated through the various business line committees, by the Management Board and ultimately by the Board of Directors. The latter defines strategic decisions to achieve the levels of expected profitability and ensure the group's survival of the Group and the continuity of its activities.

### Capitalisation

Strategic risk is not covered by capital but is handled and managed through an appropriate governance process at Belfius.

## VII.3.3. Execution risk

### Definition

Execution Risk corresponds to the risk of not being able to fully execute the decided strategy or the improper implementation of decisions. Examples of execution risk are insufficient resources (HR, IT, ...), failing new product introductions or rolling out complex new systems, etc.

### Capitalisation

Execution risk is not covered by capital but is handled and monitored through an appropriate reporting and follow-up at Belfius.

## VII.4. Reputation risk

### Definition

Reputation risk is defined as the potential decrease in the value of the Belfius brand arising from adverse perception of the image of the financial institution by customers, counterparties, shareholders, investors, regulators or other stakeholders.

### Risk Appetite

Belfius wants to be perceived as a sound and trustworthy partner by its relevant stakeholders (mainly prospects, customers, investors and regulators) by proving Belfius is taking up its deep-rooted commitment to achieve client satisfaction and to focus on a long-term profit strategy with a low risk profile.

Belfius wants to affirm, promote and protect its excellent reputation.

Reputation risk is a top strategic business risk and a key business challenge. Reputation risk management is key to Belfius since the business model is based on trust. Avoiding all threats that can possibly undermine the trust of our stakeholders is central for us.

### Organisation and management of the Risk

Reputation risk (mainly image and branding) is steered by the Brand, Experience and Communication Department in direct line with the CEO and the BoD Chairman. The CRO and NFR teams are active partners in this field.

The reputation risk policy, the integration of the reputation risk in the RAF, and in general in the Risk Charter, Risk Culture, Risk Roadmap, Ethical codes and codes of conduct cover reputation risks and are proof that all team members are handling reputation risks as an overall and common responsibility.





The reputation strategy aims to implement sound, prudent and effective risk management and is based on three pillars:

- prevention: transparency regarding the reputation risk governance, combined with well-defined processes, guidelines and procedures, mainly to identify sources of reputation risk;
- detection: an early warning reporting ensures a proactive detection of factors affecting reputation risk and stimulates the alertness and speed of response both having a significant Impact on the level of reputational damage;
- mitigation: tactical and operational mitigation actions are top-down driven with adapted short decision & communication lines ensuring a clear and univocal response to incidents or crises. The emphasis is given, amongst others, on effective response to press, interaction on social media, sound complaint management and crisis communication.

The key internal control actors, i.e. the Brand, Experience and Communication department, the Risk department, and all business departments, have set up appropriate risk management frameworks and policies to prevent, detect and monitor potential reputation impacts.

## Capitalisation

The risk is not capitalised and is managed through strong corporate governance and compliance rules within Belfius as described above.

## VII.5. Compliance risk

### Definition

Compliance risk is associated to any financial institution's failure to comply with laws, regulations, rules, internal policies or prescribed best practices that can result in financial sanctions or loss of reputation.

### Organisation and management of the Risk

Compliance is organised around a central Compliance department based on 3 pillars:

- Business Advisors (advisory function),
- the Compliance Risk Monitoring team (control function) and
- the anti-money laundering unit (AML).

These three teams are supported by a specific unit which frames projects at an IT and organisational levels.

The central Compliance department may also call on the services of a large network of Compliance correspondents within the Bank's divisions, as well as on a network of Compliance managers within the branch network. They play an important role, particularly in the introduction of Compliance policy and procedures as well as in the training and awareness programs.

A Compliance Officer recognised by the FSMA and the NBB is at the head of the Compliance organisation. The Compliance Officer reports directly to the Chief Risk Officer and to the Audit Committee and, if necessary, may directly approach the Chairman of the Board of Directors, the external auditor and the regulators.

As required by the regulations, the department also has an Anti-Money Laundering Compliance Officer.

The Anti-Money Laundering Compliance Officer (AML CO) is head of the anti-money laundering team, which combats money laundering practices. Belfius strives not to be



involved in laundering money from illegal activities, the organisation of tax fraud, financing terrorism or circumventing international embargos in line with all legal requirements. To underline this commitment, the AML CO has established preventive measures and broadened controls. Proper knowledge of the customers and their identification (Know Your Customer process), investigation on the origin of financial flows on accounts and detection of dubious transactions (Know Your Transaction process) are all vital elements in the prevention of such practices.

The Compliance Officer of Belfius Bank ensures that a coherent and effective Compliance policy is applied within all the subsidiary companies of the Belfius Group. Belfius Bank traces out the group policy and defines the Compliance methodology to be used. Each regulated subsidiary company has a Compliance Officer who is responsible for the application of the transposed policy within his/her company. These Compliance officers report functionally to the Compliance Officer of Belfius Bank.

Belfius Bank has a very low risk appetite for Compliance risk. This is important to maintain a good reputation, the confidence of all stakeholders, and to avoid administrative or criminal sanctions. In this context, Belfius is continuously evaluating and reviewing its Compliance framework to remain in line with the latest regulatory evolutions, best practices in the market, and strategy of the bank. In 2022, major updates have been made to the control framework regarding special mechanisms. In the AML domain, a new AIML based transaction monitoring system has been implemented. Screening of international transactions under the sanctions and embargos screening have been optimised. Regarding KYC processes, the PEP detection process has been optimised and a risk based approach for identification of UBOs has been implemented. In the MiFID domain, ESG preferences are being implemented gradually. The market abuse detection framework has been challenged leading to the choice of a new automated detection tool that will be implemented in 2023.

## Capitalisation

This risk is not covered by capital. The reasons behind the absence of quantification of Compliance risk are primarily driven by the lack of sufficient available data and/or history to support a statistically robust quantification process. In that context, capital is not the adequate answer to cover Compliance risk. We therefore consider more relevant to monitor this risk through a strong compliance culture, procedures and processes and to set aside 'ad hoc' provisions for this type of specific events which are most of the time characterized by long term procedures.

## VII.6. Legal risk

### Definition

Legal risk results from the following risks:

Risks relating to the regulatory framework:

- non-compliance with the regulatory framework: the risk of not applying, in whole or in part, applicable laws and regulations;
- incorrect application of the regulatory framework: the risk of incorrectly applying laws and regulations, which could be challenged by a third party;
- non-optimal use of the regulatory framework: the risk of not providing the appropriate or optimal legal support, or of not benefiting from an advantage resulting from the regulatory framework, due to a lack of sufficient knowledge of that framework;
- breach of the general duty of care: the risk of a behaviour, fact or decision adopted in violation of the general duty of care, which may involve Belfius' non-contractual civil liability.

Risks relating to the contractual framework:

- inadequate drafting of contracts: the risk of not protecting Belfius' interests in the contracts with third parties (contracts with terms that are either inadequate, unfair or unenforceable);
- ignorance of the contractual framework: the risk of not taking into account all the commitments made by Belfius with or towards any third party (failure to keep track of and meet or enforce contractual obligations or rights).

The materialization of the legal risk may entail the following consequences for Belfius:

- a financial impact;
- a reputational impact;
- litigation, liability (civil or criminal), sanctions (administrative or criminal), or measures imposed by a (supervisory) authority; and/or
- an impact on customer satisfaction.



## Organisation and management of the Risk

In order to control legal risks, a Legal Risk Framework (also known as Legal Risk Policy - including a Risk Assessment Matrix) has been set-up and approved by Belfius' Management Board. This Legal Risk Framework is being implemented and a risk measurement & management process is applied.

This process involves successively:

- a risk assessment, in terms of impact and probability of occurrence;
- a risk taxonomy & risk appetite; and
- the implementation of risk management measures.

A Legal report, including a dashboard of the identified major legal risks is submitted to the Risk and Audit Committees on a half-yearly basis.

### Capitalisation

This risk is not covered by capital. The reasons behind the absence of quantification of Legal risk are primarily driven by the absence of sufficient available data and/or history to support statistically robust quantification. In that context, capital is not the adequate answer to cover Legal risk. We therefore consider more relevant to monitor the Legal risk through procedures and processes and to set aside "ad hoc" provisions for this type of specific events which are most of the time characterized by long term procedures.

## VII.7. External risk

### Definition

External Risk relates to the risks that arise from events outside the company and which are beyond its influence or control. These risks can offer negative and/or positive benefits. Organizations cannot influence the likelihood of these risk events but can reduce the impact cost. Sources of these risks include political disasters and major macroeconomic shifts.

### Capitalisation

External risk is not covered by capital but is handled and monitored through appropriate processes at Belfius.

# VIII. ESG Risk Management

For a few years now, ESG risks have been considered one of the top risks that can affect Belfius both directly and indirectly. Since ESG risks affect other traditional risk types, the financial impacts of these risks can materialise in a whole range of ways and within different time horizons. While Belfius is focused on reducing its level of exposure to ESG risks, we're also committed to supporting the transition to low-carbon climate-resilient and environmentally sustainable economy, minimizing its negative impact on society and ensuring that transition occurs in a socially inclusive way. As such, steps have been taken to gradually integrate these considerations into the overall risk management framework.

The foundations of Belfius' ESG Risk Management Framework were laid in 2020. In 2021, Belfius moved forward with the design of the ambitious ESG action plan aimed at aligning our practices with the expectations set by the ECB in the "Guide on climate-related and environmental risks". Main ESG risk achievements of 2022 include the development of the ESG scoring methodology for corporates and of the simulation tool for mortgage loans, the update of the first high level climate materiality assessment and portfolio screenings aimed at identifying climate sensitive exposures, the successful participation in the climate-related supervisory exercise (climate stress test and thematic review), carrying out of the first internal climate stress test, the setup of an ESG KRI dashboard and the integration of additional ESG key risk indicators in the Risk Appetite Framework.

## Definition of ESG risks

ESG risks are the risks of any negative financial impact on an entity, sovereign or individual stemming from current or prospective impacts of Environmental, Social or Governance factors on its financial performance or solvency.

These risks can exacerbate **other risk types** such as credit, market, liquidity, operational, reputational, legal and strategy risks.

## Climate-related risks

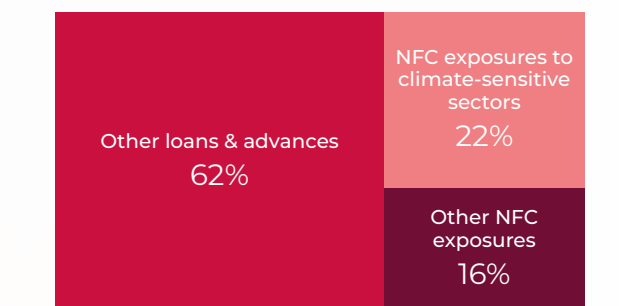
**Climate-related risks** relate to the risks associated with global warming and represent a sub-type of ESG risks.

**Climate risk drivers** include acute or chronic weather events but also policy, technological and behavioural changes.

**Transmission channels** include property damages, business disruptions, loss of income, higher costs and investments, lower profitability and asset values but also macro-economic changes (such as price increases and labour productivity decreases).

## Climate Sensitive Exposures

### Total loans & advances 31/12/2022





# VIII.1. What are ESG risks and why do they matter?

The ESG metrics help measure the sustainability and societal impact of business activities.

## What does E.S.G. stand for?

- Environmental: Pillar “E” usually includes topics relating to greenhouse gas emissions, use of natural resources, impact on biodiversity, waste, pollution,...
- Social: Pillar “S” usually includes topics relating to human rights, workforce, impact on community, product responsibility, employee training,...
- Governance: Pillar “G” usually includes topics relating to management, stakeholders engagement, compliance, ethical behavior,...

ESG factors create opportunities but entail risks as well.

Within the ESG risks, environmental and climate-related risks (i.e. financial risks associated with global warming, biodiversity loss, pollution, natural resources depletion,...) are currently in the foreground. Environmental and climate-related issues are indeed one of the greatest challenges the world is facing and there is no doubt it will have a significant and lasting impact on the economic growth and prosperity. According to the World Economic Forum (WEF) Global Risks Perception Survey 2022-2023, environmental risks make up half or more than half of the most severe top 10 risks the world will face in both short and long term horizons.

Today, a 1.2°C temperature increase in comparison with the pre-industrial levels has already resulted in extreme weather events that are being experienced in everyday lives of people. In response, regulators are taking swift action for transitioning to a low-carbon economy. The European Union (EU) has pledged to make the EU the first climate-neutral continent by 2050 and to decrease GHG emissions by 55% by 2030, which can only be achieved through a strong collaboration between public and private sector and decisive actions.

Considering the urgency for action to avoid climate tipping points, and regulatory scrutiny, Belfius decided to first focus on climate-related issues. It should be noted however that Belfius feels compelled to tackle the financial impacts stemming from climate factors in a holistic way, putting sufficient weight on the social consequences.

Accordingly, ESG risks have been identified by Belfius as a top risk for a few years now. Both physical and transition risk drivers are being considered in Belfius’ risk inventory:

- **Physicals risks** arise from the physical effects of climate change and include acute risks (mostly weather-related events and natural disasters such as storms, floods, fires or heatwaves) and chronic risks (which are incremental pattern changes such as rising sea levels, water stress or biodiversity loss).
- **Transition risks** arise from the transition to a low-carbon economy and include policy risks (such as the introduction of a carbon tax, new energy efficiency requirements for buildings,...), technological risks (rendering old technologies obsolete in favor of new ones, less damaging for the climate), market risks (such as a shift in consumers preferences), legal risks (i.e. the risk of litigation for failing to address climate-related issues) and reputational risks.

For sound implementation of its business strategy, Belfius looks into risks and opportunities including environmental and climate-related risks that have already or will become material in the future. When investigating materiality, Belfius wants to identify risks that are material from both financial materiality perspective and impact materiality perspective to ensure its long term profitability and value creation for all stakeholders.

### Financial materiality

Financial materiality relates to the impact of climate change on Belfius (in the form of risks and opportunities), both

- Directly: on its business continuity, reputation, capital and liquidity
- Indirectly: through its loans, investment and insurance portfolios

### Impact materiality

Impact materiality includes but is not limited to the impact of Belfius on the climate (mainly via greenhouse gas emissions) and environment, both

- Directly: through its own assets and operations
- Indirectly: through its financing, investing and insuring activities



There are overlaps between these two perspectives, for instance when a company has a higher negative impact on the climate, it will be more exposed to transition risks.

For that purpose, through a high-level materiality analysis performed in 2021 and updated 2022, Belfius Bank identified climate-related risks that are considered material in the short, medium and long term. The identification process is based on a mix of expert judgment and literature findings (such as various reports and studies from TCFD, UNEP FI,...).

### Belfius climate risk materiality matrix

Risk type	Risk driver	Description	Transmission channel	Business affected	Time horizon / impact level		
					ST ≤3 years	MT 4-10 years	LT > 10 years
TRANSITION RISK	POLICY & REGULATION	Increase in cost of GHG emissions due to policy or regulatory changes (through carbon pricing mechanisms such as tax, quotas,...)	Increased cost of own emissions	Own operations	●		
			Increased cost of emissions of customers	Financing activities	● ● ●	● ●	●
		Mandatory renovation for energy consuming real estate	Lower household/business wealth, lower collateral value for low EPC buildings	Financing activities	● ● ●	● ● ●	● ●
		Mandatory Company alignments with transition policies	Adjustment of investment strategy, adaption of the business model and portfolio alignment (e.g. due to regulation of existing products and services)	Financing activities	● ●	● ● ●	● ●
		Changes in regulation / prudential treatment of climate risk-sensitive assets	Increase in regulatory capital requirements and enhanced reporting on climate-related issues	Own operations	● ●	● ●	●
	TECHNOLOGY	Low-carbon technologies that replace carbon-intensive products/services	Decrease in market value of carbon-intensive assets	Financing activities	●	● ●	●
		Prohibition of using high-carbon technologies	Increasing investment in new low-technology technologies / new business models / cost of transition	Financing activities	●	● ●	●
	MARKET DISRUPTION	Changes in customer preference, demand and supply shifts to sustainable products / services	Decrease in market value of non-sustainable assets	Financing activities	●	● ●	●
		Increase in cost of raw materials	Increase of own energy supply cost	Own operations	●	●	
			Increase in energy supply cost of customers	Financing activities	● ●	● ●	
			Increase in supply cost (other raw material) of customers	Financing activities	●	● ●	
	LEGAL / COMPLIANCE / REPUTATION	Non-compliance with financing/ investment strategy with respect to climate change	Negative perception from the external stakeholders / penalties & sanctions / litigation risk	Own operations & Financing activities	● ●	● ●	●
		Additional regulatory burden (new requirements)	Increased costs linked to necessary (human, financial, IT,...) investments	Own operations & Financing activities	● ●	● ●	●
PHYSICAL RISK	ACUTE EVENTS	Heatwaves, hurricanes, wildfires, floods	Cash flow impact following damages to (real estate) assets and lower asset/collateral values	Own operations		●	●
				Financing activities	●	● ●	● ●
			Lower repayment capacity because of higher insurance premiums	Financing activities	●	● ●	● ●
	CHRONIC PATTERNS	Increasing droughts, sea-level rises, water stress, bio-diversity loss	Increases in clients' costs, drop in client's production (e.g. agriculture) leading to gradual rise in PDs and reduction of collateral values	Financing activities		● ●	● ●

The number of ● indicates the expected impact based on the assessed likelihood that the risk driver materializes within that time horizon and the estimated magnitude of the associated economic/financial consequences for Belfius.



At this stage (pending a more granular and/or quantitative assessment), it seems that the most relevant risk drivers in the short term are linked to policy/regulation changes and especially:

- the introduction of new carbon pricing mechanisms (such as a carbon tax) that could increase companies' operating costs, entail a repricing of certain assets and lead to the need to make new investments.
- the implementation of more stringent EPC regulation that would force households and companies to renovate their buildings, impacting their wealth and cash flow, as well as the (collateral) value of the real estate assets.
- additional legal, reporting and compliance requirements which translate in additional costs for the companies subject to these regulations and start playing a bigger role in the way companies are perceived.

In the medium term, other risk drivers such as mandatory alignments with certain transition pathways, technological shifts, changes in market preferences and further increase of the energy and raw material prices are expected to gain importance and could negatively impact the profitability of certain companies, as well as their equity value and the value of their (real estate) assets.

Further, the impact of physical risks should not be downplayed, especially in the longer term and even more so in the absence of policies to mitigate global warming. Possible increase in the intensity and frequency of natural hazards and structural changes in weather patterns could, for instance, trigger damages to real estate assets and production sites, supply chain disruptions, production capacity and workforce productivity decreases, repricing of certain assets prone to physical risks and increase of the insurance premia as well as the insurance protection gap.

## VIII.2. Belfius' ESG Strategy and Framework

All 3 components of sustainability (i.e. Environmental, Social and Governance) are at the core of Belfius' mission and vision (i.e. being meaningful and inspiring for Belgian society):

- Belfius wants to be a leading actor towards the transition to sustainable Belgian economy and society and is committed to actively contribute to the Paris Climate Agreement and the Sustainable Development Goals.
- Belfius is committed to make its operations as sustainable as possible (e.g. sustainable procurement, sustainable IT,...) and to set an example as employer in the field of sustainable development (e.g. equal opportunities, well-being, social commitment, mobility,...).
- Belfius is also committed to achieve a sustainable balance sheet by investing sustainably, as well as to continue encouraging its customers to do so and to support Belgian businesses in their shift towards sustainable activities.

Belfius overarching goal is thus threefold: it is about adequately managing ESG risks in order to ensure that Belfius remains resilient and stays profitable while also limiting its potential negative impact on the world and maximizing its positive impact and contribution to society. When assessing ESG risks and investigating materiality, Belfius therefore always relies on the concept of double materiality, as explained earlier. For more details on Belfius' ESG strategy, please consult the Sustainability Report.



Since 2020, Belfius started developing a general sustainability framework that set the foundation for better framing and management of ESG risks. First steps included setting up a specific ESG governance and ESG data program, taking initiatives to raise awareness internally and engaging more deeply with customers and external stakeholders, participating in the platforms where knowledge and best practices are shared (BACA, UNEP FI, FEBELFIN, ASSURALIA,...) and investigating best-in-class resources (such as papers and tools provided by NGFS, UNEP FI, PCAF, PACTA, TCFD,...). ESG risks entered the "top 10 risk" selection that year and ESG risk drivers were added to the Risk Taxonomy.



In 2021, Belfius moved forward with the design of an ambitious ESG action plan aimed at aligning its practices and plans with the expectations set by the ECB in its “Guide on climate-related and environmental risks” published in 2020 (the so-called “**ECB ESG action plan**”). The ECB ESG action plan includes a roadmap around ESG strategy, governance and organization, data and reporting, risk management and disclosures. Coupled with Belfius’ existing initiatives, this action plan and roadmap accelerated the process towards a full integration of ESG in day-to-day risk management activities and practices (see box about the ESG Risk Management journey so far).

The first mitigating actions were put in place as well, such as the implementation of the **Transition Acceleration Policy (TAP)** which excludes or restricts the financing of certain activities that present elevated financial or reputational risks from an ESG point of view. For a high level overview of the TAP, see the box “accelerating the transition”.



For more details, refer to chapter 6.1.2 of the Sustainability Report.

### Accelerating the transition

The **Transition Acceleration Policy**, or TAP for short, is Belfius’ sector policy.

It states that companies that do not respect the principles of the UN Global Compact and are identified as such will not be supported by Belfius.

Next to this, specific criteria apply to economic sectors and activities:

- Certain activities (tobacco, gambling, coal and lignite mining, unconventional oil and gas extraction, speculative activities related to agricultural commodities) are resolutely excluded;
- For other sectors (conventional oil and gas extraction, electricity production, nuclear energy), specific criteria determine which activities Belfius excludes and which Belfius wants to support towards a sustainable economic transition;
- For yet other sectors (mining of ores and minerals, palm oil and soy cultivation), conditions are imposed that relate to the sustainability policy of companies.

Finally, Belfius uses a watch list of countries for the financing of customers transactions involving a foreign public authority or a foreign public company.

### Belfius’ ESG Risk Management journey so far

#### The main achievements in 2021:

- Setup of the ESG Risk Competence Centre
- Submission of the first version of ECB ESG action plan
- First high level portfolio screenings (identification of climate policy relevant exposures, climate sensitive exposures and exposures to companies active in fossil fuel)
- Dedicated ESG surveys in yearly SARIC and RICAP exercises
- Inclusion of Transition Acceleration policy criteria in credit acceptance policies
- Integration of first environmental and climate related key risk indicators (mainly relating to Belfius own operations) in the Risk Appetite Framework (RAF)

#### The main achievements in 2022:

- Setup of the ESG KRI Dashboard and ESG KPI dashboard
- Development of an ESG scoring methodology for corporates (including a data collection process through engagement with clients)
- Development of a climate risk assessment tool for mortgage loans
- Update of portfolio screenings (including a broader identification of climate policy relevant exposures)
- Participation to supervisory exercises (ECB climate stress test and ECB thematic review)
- First internal climate stress test
- Integration of additional environmental and climate related key risk indicators in the Quarterly Risk Report (QRR) and Risk Appetite Framework (RAF) (mainly relating to our financing activities)

A further acceleration is expected in 2023 and 2024 as following the feedback from the thematic review performed by the ECB, European banks have been invited to submit updated ESG action plans. For more information on the role and the requirements of the ECB, see the box “ESG Risk Management through the supervisory lens”.





### ESG Risk Management through the supervisory lens

One of the ECB's missions is to ensure the safety and soundness of the financial system. In line with the growing importance of climate change for the economy and increasing evidence of its financial impact on banks, the ECB (in its role as a supervisor of European banks) expects banks to properly detect, manage, and disclose risks stemming from climate change.

- In November 2020, the ECB published a guide on climate-related and environmental risks.
- Banks were required to perform a self-assessment early 2021 and to submit an action plan to close any existing gaps between practice and the supervisory expectations outlined in the guide.
- The ECB provided feedback to each significant institution by the end of 2021 and published a first report on the state of climate and environmental risk management in the banking sector in November 2021.
- In 2022, the ECB further stepped up its efforts by conducting a supervisory stress test exercise focusing on climate-related risks and thoroughly reviewing the practices of 186 banks (via a thematic review on environmental and climate related risks).
- Following those exercises, the ECB published several reports, including papers highlighting good practices in the field of climate risk management, on one hand, and climate stress testing, on the other hand. A new report was also published regarding banks' climate-related risk disclosures.

The main conclusion from the thematic review at sector level was that “despite improvements, banks still need to better identify and manage climate and environmental risks: even if 85% of banks now have in place at least basic practices in most areas, they are still lacking more sophisticated methodologies and granular information on climate and environmental risks.”

To encourage banks to speed up their efforts, the ECB decided to set staggered (institution-specific) deadlines for banks to progressively meet all supervisory expectations by the end of 2024. Each significant institution thus received its own individual feedback letter, detailing identified weaknesses and shortcomings and communicating expected remediation dates.

Outcomes from the thematic review were integrated in the Supervisory Review and Evaluation Process (SREP) and, in some limited cases, resulted in binding qualitative requirements or even an impact on the SREP score (affecting, in turn, the Pillar 2 capital requirements of the concerned banks).

The whole financial sector expects the supervisory scrutiny to remain high and new supervisory exercises to be launched.

More details on the aggregated results and lessons learnt of the thematic review on environmental and climate-related risks can be consulted [here](#).



The ECB noted that Belfius made progress in the advancement of its ESG action plan:

- There is growing consideration for climate and environmental risks in the risk appetite framework and by the governance bodies.
- The impact of physical risks on operational risk and insurance activities, as well as the impact of transition risks on the credit risk of large corporates has been assessed.
- Climate risks have been included in the risk taxonomy and are considered in the internal capital adequacy assessment process.
- Climate and environmental risks also start to be integrated in the onboarding and credit granting processes.
- ESG commitments and targets have been set and an ESG KPI dashboard has been developed to monitor the progress toward these targets.
- The first strategic responses and mitigating actions have been implemented (such as the Transition Acceleration Policy).

Belfius' practices in the field of climate and environmental risks were deemed "broadly adequate", except for the materiality assessments that are not considered comprehensive enough at this stage. Belfius' performance in the gradual integration of climate and environmental risks in its risk management framework seems to be in line with the performance of its European peers.

Upon the request of the ECB, Belfius Bank, like other European banks, will submit an updated action plan by 31/03/2023, highlighting the additional actions that will be undertaken in 2023 and 2024 for the proper and comprehensive risk management of ESG risks.

Following the ECB's request, Belfius will accelerate the integration process of environmental and climate-related risks in its risk management framework and will try to be as comprehensive as possible in doing so (covering all types of risk drivers, portfolios and prudential risk categories, as well as several scenarios and time horizons).

Efforts will also be made in the field of the development of more sophisticated quantification methods (using assumptions and workarounds in the first stage, pending the availability of more granular and accurate data).

Other initiatives planned in 2023 aimed at addressing the shortcomings identified in the context of the thematic review include:

- Performance of more granular risk identification exercises to better assess the materiality of each ESG risk driver (across all types of prudential risk and various time horizons) and improve comprehensiveness;;

- Full operational implementation of the ESG score (score calculation);
- Design of a new dedicated environmental due diligence (to be integrated in the credit granting process);
- Set up of the framework to check the alignment of lending portfolios with the Paris Agreement (using tool such as SBTi and PACTA);
- Development of tools aimed at assessing, monitoring and managing reputational risks;
- Submission of emission reduction targets and action plan to SBTi;
- Inclusion of new climate scenarios in the stress test of the financial plan;
- Definition of further environmental and climate related key risk indicators (and, where relevant, limits) for monitoring and reporting.

## VIII.3. Integration of ESG considerations in the Risk Management Framework

### VIII.3.1 Governance and organization

ESG-related themes have been integrated into the governance layers of Belfius Group. Accordingly, the terms of references of the main boards and committees have been adapted to explicitly integrate ESG responsibilities. At executive management level, the main achievement of 2022 relates to the creation of the Strategic Sustainability Committee (SSC) which operates as a central hub of the (operational) ESG governance. Below executive management level, various exchange platforms have been set up as well.

A prominent new committee in the field of ESG risk management is the **ESG Models Steering Committee** which oversees the development of a standalone scorecard to assess the ESG risk profile of corporate customers, the setup of new tools to measure the impact of certain risk drivers and scenarios on the credit parameters of mortgage loans' collateral and debtors, and the gradual integration of climate and environmental risks in models and stress testing framework.

The responsibilities of the governance bodies with respect to ESG are detailed in section 7.3.1 of the Sustainability Report.





Organization-wise, Belfius has chosen to work with a limited number of dedicated teams (such as the central sustainability team, the ESG data team and the ESG Risk Competence Centre detailed below) and a network of ESG champions across the organization to strike the right balance between expertise on one hand, and company-wide ESG integration on the other hand.

The management of environmental and climate-related risks and opportunities is thus being progressively embedded across all layers of the organization as well via a clear allocation of roles and responsibilities regarding the identification, assessment, measurement, monitoring, management and reporting of these risks along the three lines of defense model. Each line of defense takes on its traditional role while extending it to the new environmental and climate-related risk drivers.

- As a rule, the business lines are the **first line of defense** towards risks, including climate-related risks. While sustainability has been integral part of the Belfius Inspire 2025 strategy, Belfius conducted awareness raising exercises for that first line of defense through the Self-Assessment of Risks and Internal Controls (SARIC) annual process, Risk Identification and Cartography Assessment Process (RICAP), the New Product Approval Process (NPAP) adjustment and a variety of webinars.
- The ESG Risk Competence Centre sits at the heart of the **second line of defense** and is in charge of setting up a comprehensive ESG risk management framework in collaboration with other groupwide risk departments. This is a transversal risk team that has been set in 2021 within the Strategic Risk Management department. It reports regularly to the Chief Risk Officer and quarterly to the Management Committee and the Risk Committee (advisory body of the Board of Directors).

Its role encompasses among others:

- providing general advice on climate-related strategy and recommendations on key risk indicators (KRIs), limits, and mitigation actions;
- setting up a comprehensive ESG risk management framework, in collaboration with the ESG Risk Ambassadors that each specialized risk team (in charge of a specific area of prudential risk) appointed, supported by new committees dedicated to ESG;
- developing Belfius' climate risk assessment methodologies (e.g. materiality assessments, due diligence) and ESG Risk Dashboard;
- keeping oversight of the integration of ESG dimensions in risk policies, processes and internal reporting;
- designing the overall ECB ESG action plan and subsequent coordination and monitoring of the roll out of the component actions. Each specialized risk team is responsible for the timely execution of the actions assigned to it, to meet the ECB's requirements on climate as well as to fully embed ESG risks in its day-to-day activities.

Also, as the second line of defense, the legal and compliance departments closely monitor legislative and regulatory requirements and ensure Belfius is compliant with all of them. The legal department implements the ESG regulatory watch in the organization through regular mailings and quarterly meetings. Belfius' legal team is also in charge of the prevention and mitigation of risks associated with legal, liability, litigation and greenwashing risks related to climate.

Both legal and ESG Risk Competence Centre collaborators actively participate and contribute to external workgroups regarding environmental and climate-related issues such as the workgroups set up within Febelfin. The risk function is also a key contributor to the Strategic Sustainability Committee.

- As for the **third line of defense**, Belfius conducts annual internal audit reviews on ESG risk management covering a variety of topics such as strategy, governance, risk management processes and policies. The goal of these reviews is to assess Belfius' overall level of readiness, compliance and performance, as well as the comprehensiveness and effectiveness of its practices. In addition to these thematic audits, sustainability aspects are also considered in other audits (for instance, audits targeting financing solutions).

### VIII.3.2 The ESG Action Plan

For a few years now, ESG risks (including but not limited to climate and environmental risks) have been identified as a top risk than can affect Belfius both directly and indirectly through its financing, insurance and asset management activities. These risks have therefore been included in Belfius' risk taxonomy, albeit not as a separate risk category but as a potential driver of credit, market, operational, strategic, business and reputational and legal risks.

Belfius' risk mapping was also adjusted in 2021 to reflect the integration of ESG as a new risk driver in the risk taxonomy. Following the risk mapping process for each risk category, new roles and responsibilities for the first and second lines of defense have been allocated. Consequently, these risks are now explicitly mentioned in the Belfius Risk Culture Policy and Risk Charter as well and are becoming integral part of Belfius Group's risk management framework.

They have thus also been embedded in Belfius' risk yearly identification and assessment processes (including, for instance, the Risk and Control Self-Assessment (RCSA), the Risk Identification and Control Assessment Process (RICAP) and the Self-Assessment of Risks and Internal Controls (SARIC)). Dedicated surveys have been carried as well to ensure the proper identification and assessment of ESG-related risks across the whole organization and the three lines of defense.



As a result, ESG dimensions are increasingly being considered in risk policies, guidelines and processes, including the risk appetite policy, credit acceptance policies, underwriting standards, relevant product approval processes, stress test frameworks and suppliers' charters, amongst others.

Likewise, climate risks are progressively integrating the full end-to-end credit process: for instance, an environmental due diligence focused on the assessment of the quality of customers' ESG strategy, transition plans and risk management practices is expected to soon support credit decisioning. Similarly, ESG considerations will gradually make their way in pricing guidelines and collateral valuation tools.

### VIII.3.2.1 Identification and assessment of ESG risks

Risk identification and assessment are a prerequisite for strategic decisions and detailed risk management actions, which in turn will help ensuring the group's long term resilience. However, as climate risk impacts several risk categories of assets and liabilities through different drivers, the assessment of these risks remains a challenging exercise, especially coupled with the lack of data available on the market. Belfius thus applies a flexible and gradual approach to tackle these challenges and is expecting further clarity on the regulatory expectations that are evolving rapidly.

The outcome of these identification exercises helps Belfius prioritizing actions and feeds its business and sustainability strategy. This includes decisions on how to ensure a sustainable growth, the identification of the most valuable products and service offerings, the possible influence on pricing, the adaptation and mitigation activities that should be pursued, amongst others.

#### Operational and reputational risks

For several years, attention has been dedicated to the impact of climate-related risks on Belfius' operational resilience. The bi-yearly threat analysis exercise measures the impact of physical risks, including natural disasters on assets such as Belfius data centers, with a view on business continuity. If necessary, adequate mitigating actions are then taken to ensure ability to continue or quickly resume critical activities in case of extreme events. It should be noted that most critical activities are executed simultaneously in different places and that the use of adequate technologies are also limiting the potential impact of climate-related risks on activities.

Belfius has also significantly strengthened its approach regarding its suppliers with the set-up of a specific ESG due diligence screening process. Since 2020, Belfius further detailed and sharpened its commitments towards sustainable procurement. In particular, the Procurement Policy has been reviewed:

- by integrating ESG considerations into the supplier selection process, including a Sustainability Code of Conduct for suppliers that defines principles to comply with<sup>(1)</sup>; and
- by conducting vendor assessment and monitoring initiatives with a third party, including ESG scorecard monitoring<sup>(2)</sup>.

To get a better overview of Belfius' initiatives regarding its suppliers, please refer to chapter 6.1.6 of the Sustainability Report.



Belfius aims to keep a strong reputation in the field of ESG as well. Belfius is therefore committed to reducing its own environmental footprint. In 2019, Belfius has announced it would reduce the emissions linked to its own operation with 20% by 2025. In the meantime, the target has been increased to 25% and has already been reached. More details about Belfius' decarbonisation trajectory can be found in chapter 7.1 of the Sustainability Report.



Belfius is also committed to be a leading actor in the transition to a low carbon climate resilient and environmentally sustainable Belgian economy and society. Additional details regarding Belfius' ongoing initiatives, including its voluntary commitments and its sustainable financing solutions, can be found in the Sustainability Report.

(1) The Sustainability Code of Conduct for Suppliers is in line with the 10 UN Global Compact Principles, integrating into business relationships expected levels of behaviour in terms of internationally proclaimed human rights and the absence of human rights abuses, health and safety criteria in the workplace and in products and services, respectful labour standards, anti-corruption and integrity values, respect for freedom of association and collective bargaining, elimination of all forms of forced and compulsory labour, abolition of child labour, elimination and prohibition of discrimination and positive environmental impacts.

(2) Belfius works with EcoVadis, a global ESG rating agency serving as one of the leading authorities in this domain. Vendors responding to Belfius' Requests for Proposals are provided with a link to conduct a sustainability performance assessment with EcoVadis if they have not yet done so. 66 % of the 2022 total vendor spend is rated. No suppliers reported an insufficient score and only twenty received a "Partial" score (i.e. below 45/100). The suppliers that received a partial score are being requested to develop an action plan to increase their score (above 45/100) within two years.



### Credit risks

Following the first high-level materiality assessment conducted in 2022, Belfius identified that credit risk is the risk category that will be most subject to climate risks, where corporate and business loans, on the one hand and mortgage loans, on the other hand, appear to be the asset classes that are the most sensitive to climate risks. More granular and mature materiality assessments will be performed in 2023 to assess credit risks in more detail and cover other risk types to identify other risk pockets or confirm their immateriality.

When it comes to physical risks of climate, as Belfius' exposures are primarily concentrated on Belgium (since more than 95% of the total loans and advances were granted to counterparties residing in Belgium), a country exposed to limited physical risks, according to an S&P assessment on country vulnerability to weather-related events where Belgium is qualified as a “less vulnerable country”. This assessment is similar to the outcomes of the Thinkhazard tool that only identifies river, coastal flood and wildfire as prominent risks. Therefore, the geography is not considered as a major driver in Belfius' risk management approach at the moment and Belfius climate risk exercises focus mostly on transition and flood risks.

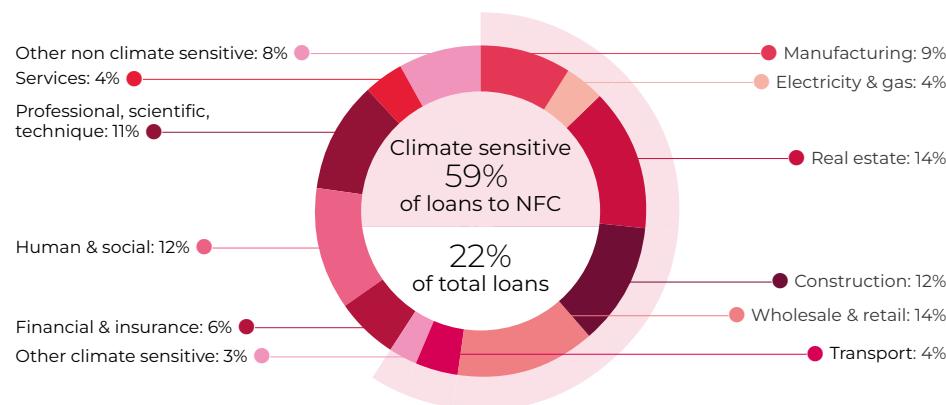
### At portfolio level

In 2021, Belfius carried out several in-depth analyses within **its portfolio “loans and advances to non-financial corporates”** aimed at identifying the most vulnerable counterparties and assets and quantifying its exposure to these risk pockets. These exercises were updated and refined in 2022.

The screenings that were performed are detailed hereunder, as well as their outcome. Please note however that these exercises are constrained by data limitations including the prerequisite that the NACE code reflecting the real, precise, up-to-date activity of each company has been assigned to it. Belfius puts effort in continuously improving the quality of its non-financial data and will adjust the figures in future reporting if necessary.

- Belfius' exposure to climate-sensitive sectors was also recalculated. It amounts to EUR 24.2 billion as of 31/12/2022.

The below graph constitute a rough estimate of potential sensitive exposures but a screening at counterparty level will be performed to refine these numbers and identify the exposures that are really particularly vulnerable to climate-related risks.



The definition used by Belfius to identify climate sensitive sectors takes into account definitions provided by CPRS (list of industries particularly vulnerable to policy changes), but also the climate stress methodology provided by the ECB (list of carbon intensive industries), and Pillar III ESG standards (list of sectors that highly contribute to climate change). It includes exposures on NACE codes A to H and L.

This is a sector-level analysis that does not take into account potential huge differences between industries and companies within one sector. All companies active in a given sector are thus considered “at risk”. In order to finetune this analysis, deep dives would be required to identify enterprises that have already taken measures to mitigate the risks via a transition plan, disinvestments, market and technological shifts, reduction of their carbon footprint, energy sourcing switches or limitation of their dependency on natural resources to name a few. These companies could then be excluded from the list of vulnerable counterparties, which would in turn significantly lower the figures presented here. The proportion of climate-sensitive exposures in loans and advances to non-financial corporations and total loans and advances is globally unchanged compared to 2021 and amounts to respectively 22% and 59%.



It should be noted that Belfius' portfolio is very diversified: no huge sectorial concentration is observed in the balance sheet, neither in climate sensitive or other sectors with no single sector representing more than 14% of loans to non-financial corporations. The only climate sensitive sectors that each compose more than 10% of this portfolio are "wholesale and retail", "construction" and "real estate". Exposures to the most vulnerable sectors like agriculture and mining, are particularly small (respectively 0.3% and 0.1%). Climate sensitive exposures are managed through the Transition Acceleration Policy, Risk Appetite Framework and ad hoc hedges for single name concentrations.

- Belfius' **exposure to fossil fuel projects and companies** amounted to EUR 1.2 billion as of 31/12/2022. In this screening a customized fossil fuel definition, based on NACE-codes along the fossil fuel value chain referenced in either CPRS or Pillar III was used. Most of the exposure (EUR 0.9 billion) is part of the legacy run-off portfolio. De-risking opportunities of the run-off portfolios are assessed on a regular basis and counterparties' ESG profiles including transition risks from climate are factored in the analysis. In the meantime, credit risk of exposures most exposed to climate risks have been mitigated by credit wraps. Other mitigating actions have been taken as well (for instance, by ensuring certain guarantees cover the most climate sensitive exposures).



For an overview of the banking book exposures exposed to transition risks, please refer to the table CC1 in the risk report annex.

In 2022, the focus was set on **real estate assets** since mortgage loans constitute a significant share of Belfius' financing activities and the bulk of these exposures are secured by real estate assets. A mortgage simulation tool has been developed to project possible evolutions of mortgage loans portfolios in the long term (up to 2050) triggered by physical and transition climate risks. This dynamic view on climate risks allows to project risk levels over time. A number of proxies and assumptions have been embedded in the tool using data from official documents (e.g. NGFS scenarios, Belgian flood maps), existing policies (e.g. regional climate plans) and in-house studies performed with the support of the Belfius research department or academia such as the University of Ghent.

#### • Identification of exposures prone to flood risk

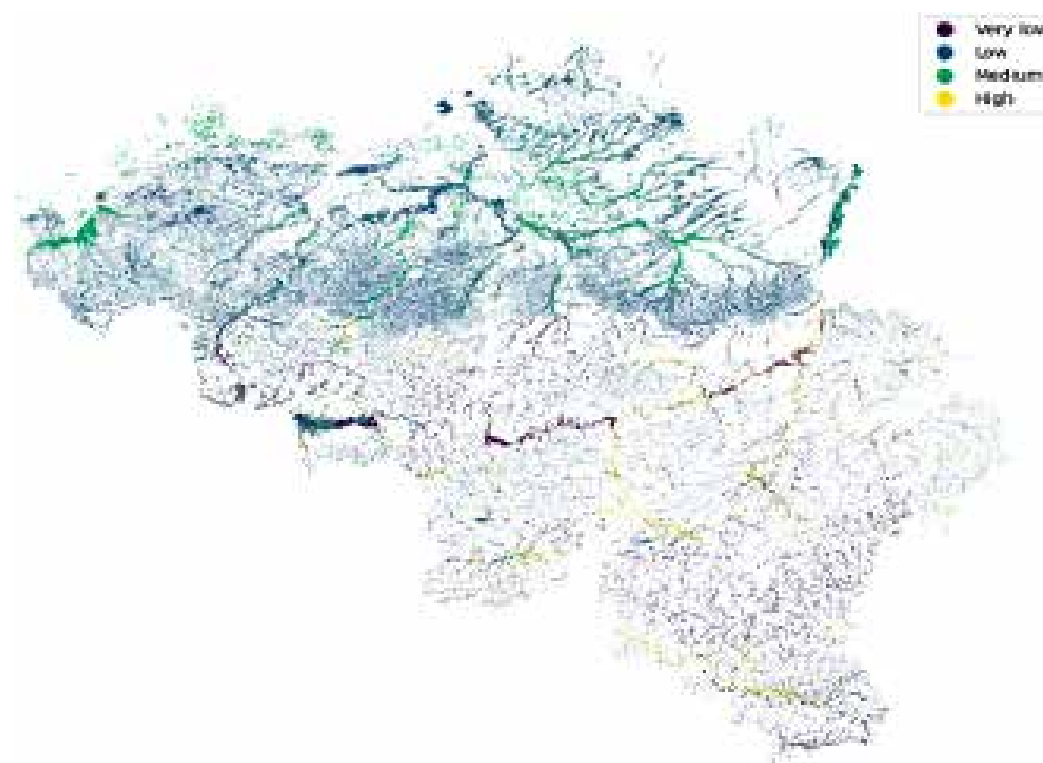
Using the tool, an analysis to assess the physical risks related to floods within Belfius' banking and insurance mortgage portfolio was conducted. Currently floods are considered as the main physical climate risk in Belgium. The real estate assets used as collateral have been geolocalized and mapped to the latest available regional maps on flood risks existence and severity.

The results showed that 90% of mortgage exposures of Belfius are located outside flood risk zones, around 9% in low or very low risk zones and 1,6% in medium or high risk zones. These percentages might evolve over time as new maps become available and cover additional risks (such as the sea level rise risk). Belfius will update the figures accordingly.

For further details, please refer to table CC5 in the risk report annex.



#### Flood map for Belgium as of 31/12/2022, combination of regional maps with varying risk scales





## Scenario analysis tables

Scenario	Risks evaluated	Time horizons and intervals	Modelling assumptions	Sector exposure and business segment scope	Granularity of the assessment	Approach and methodology	Portfolio scope, coverage and exclusions	Output metric
NGFS 2021-Net Zero 2050	Transition risks (EPC driven) and physical risks (flood risk)	2025-2030-2040-2050	Dynamic balance sheet	Mortgage loans	Asset and debtor	Sensitivity analysis based on location and energy performance of immovable property used as collateral	96% of the portfolio for flooding risk 47% of the portfolio for transition risk	Intermediary metrics: LTV and EDSTI
NGFS 2021-Delayed Transition			EPC improvement trajectories					Final metric: Climate vulnerability score per asset and debtor
NGFS 2021-Current policies								

### • Projections based on simulation tool

The prospective module simulates the possible long term impact of transition policies (estimated mainly taking into consideration EPC required by 2050 by Belgian authorities for Belgium's climate plans) on assets and debtors under various scenarios inspired by the NGFS scenarios. It also covers the potential impacts of flood on asset values and debtor's credit risk profiles.

The tool shows how the loan-to-value and the debt service-to-income ratios will evolve over time in each scenario considering the expected improvement in the energy performance of the property and thus the changes in

- the value of the building (as the price differentiation between houses in function of their energy performance is supposed to increase over time);
- the loan amount (as households will have to finance the renovation costs); and
- the income and expenses of the debtors (as there is a link between the amount of energy bills and the energy performance level of the asset).

This allows Belfius to assign "climate vulnerability scores" to assets and debtors, cluster them, analyse the characteristics of the most vulnerable ones and identify the main risk pockets within its mortgage portfolio.

The main conclusion of the performed simulations at the moment is that the "delayed transition" scenario appears more risky than the "net zero" or "current policies" ones, with risks peaking in 2030.

### At counterparty /asset level

Since there is more data available on sector-level than company-level, a top down approach to materiality assessment is a logical first step to gain quick insights on risks. However, the added value of these approaches remain limited as sector-level data do not take into account the large differences between firms within a sector such as type of companies'

production processes and technologies, company specific strategies and dynamics over time. The same is true for the mortgage portfolio analysis, from which Belfius can gather interesting insights at portfolio level but which are based on numerous assumptions and proxies.

Consequently, Belfius believes the bottom-up approach is complementary to the top-down approach in risk assessment. Belfius started performing these analyses by assigning individual scores to individual companies with the help of a tool that was developed in house, which factors in a range of qualitative and quantitative ESG indicators to which varying weights have been allocated.

This tool will enable Belfius to rank counterparties based on their exposure to ESG factors, their willingness to take ESG issues into consideration, their ability to assess and measure ESG risks and opportunities, their capacity to monitor ESG risks, their current ESG risks management practices, the results of their mitigation actions, their level of transparency, and their overall performance with regard to ESG.

This risk scoring approach is fully integrated into a customer dialogue. Indeed, the questionnaire used to capture the relevant data serves as a basis for engaging more deeply with clients to better understand where they stand, what their key issues are, how they plan to transition to a low carbon economy and how Belfius can support them to this end.

The ESG score itself will also be embedded in Belfius' commercial strategy and will be used to identify customers strengths and weaknesses in the field of ESG which will enable Belfius to adequately redirect financing flows and offer tailor-made support solutions.





Finally, the aforementioned ESG scores are expected as well to contribute to quantification of credit risks if and when a robust statistical link can be made between these scores and risk parameters such as probability of default and loss given default.

Belfius is in the development process of a similar individual ESG risk scoring tool for its mortgage loans in 2023.

VIII.3.2.2. Quantification of the potential financial impact of ESG risks

One of the most efficient ways to ascertain Belfius' level of climate resilience is to perform dedicated stress tests considering various climate-related scenarios with different temperature increases and transition pathways including different time horizons. Such exercises allow Belfius to quantify the potential impacts of certain events relating to climate change and pave the way for risk mitigation solutions. Belfius believes that climate stress tests will undoubtedly become a common feature of financial institutions' stress test framework.

In the first half of 2022 Belfius Bank participated to the ECB climate stress test and integrated climate scenarios in its internal stress tests for the financial planning process. Under the run scenarios, simulations showed limited and manageable vulnerabilities.

Belfius Bank supervisory stress test

The European Central Bank (ECB) organized the first supervisory climate stress test during the first semester of 2022. Belfius was one of the 104 significant banks who participated in the two first modules of the test relating to climate stress-test capabilities and reliance on carbon-emitting sectors. Further, Belfius was also among 41 banks that had to carry out a bottom-up stress test aimed at gauging their performance under different scenarios over different time horizons through a projection of potential losses based on shocks proposed by the ECB.

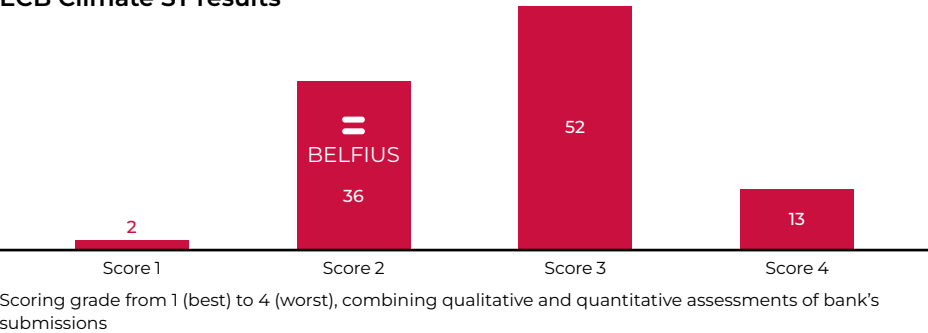
It should be noted that unlike other supervisory stress tests, this was not a capital adequacy exercise but rather a joint learning exercise with pioneering characteristics whose goal was primarily to assess the financial sector's preparedness in this field and explore the possible impacts of climate-related factors on the economy and the financial system. The exercise therefore focused solely on the impact of global warming on a limited set of risk parameters and only entailed a first gross estimation of the probabilities and magnitude of potential losses arising from acute weather events and different transition pathways to a low carbon economy. Transition risks and physical risks were assessed separately.

Bottom-up stress test scenarios and risk dimensions

	Transition risk assessment		Physical risk assessment	
SCOPE	Corporate exposures and Mortgage loans		Mortgage loans and Corporate exposures secured by real estate	Corporate exposures not secured by real estate
HORIZON	3 year	30 years	1 year	1 year
SCENARIO	Disorderly transition (NGFS)	3 scenarios: orderly transition, disorderly transition and hot house (NGFS)	Flood	Drought
RISK DRIVER	Sharp increase of carbon price	Changes in Gross Added Value per sector	Collateral's value decrease	Labour productivity losses
TRANSMISSION CHANNEL	Credit and Market	Credit	Credit	Credit
BALANCE SHEET	Static	Dynamic	Static	Static

The aggregated results at European level show that banks' losses are lower in an orderly transition scenario than after delayed action. Almost two-thirds of banks' income from non-financial corporate clients come from GHG intensive industries. Credit and market losses in the short-term disorderly transition and the two physical risks scenarios amount to around EUR 70 billion.

ECB Climate ST results



Belfius' individual results show a good resilience and globally satisfactory performance.





Indeed, with an overall score of 2 out of 4, Belfius appears to be in the top 40% of the European banks that were assessed by the ECB.

Vulnerabilities to climate scenarios are highly dependent on the sectoral breakdown of the corporate portfolio and the geographical location of the real estate assets used as collateral for mortgage loans and corporate exposures. Belfius Bank's relatively low concentration of corporate exposures to carbon-intensive sectors<sup>(1)</sup> explains Belfius' manageable sensitivity and vulnerability to transition scenarios. The modest impact of the physical risk scenarios in terms of credit risk parameters is mostly linked to Belfius Bank's very limited exposure to the agriculture sector that is one of the most heavily hit sectors in case of drought, and to the fact that almost all the immovable property used as a collateral at Belfius is located in Belgium for which no high flood risk zone was defined according to the ECB's methodology.

Results should however be interpreted with caution. Key lessons learnt from this exercise is that financial institutions face significant challenges as accurate data is often still lacking to better assess the level of exposure and most banks rely on models that currently only capture climate factors rudimentarily. Lastly, it should be noted that the scope of this exercise in terms of balance sheet coverage was rather limited and second rounds effects of certain scenarios were excluded.

Belfius will use the findings and good practices derived from this exercise as a compass to guide it towards an even better incorporation of climate risks into Belfius' stress-testing framework, internal models and long term strategy.

### Belfius Bank internal climate stress test

Leveraging on the supervisory climate stress test, Belfius included a flood scenario in its 2022 internal stress test. The rationale behind this scenario is that better informed buyers combined with more (severe) flood occurrence in the coming years will lead to a permanent flood risk discount of asset values in regions prone to flooding. This scenario was applied on the mortgage loans portfolio and aimed at forecasting the impact on the cost of risk of market values shocks on residential properties following a flood event. Damages to properties were assumed to be insured and were thus not included in this assessment. In other words, the analysis focused on Loan to Value and Loss Given Default impacts rather than Probability of Default impacts.

The internal flood scenario differed from the supervisory scenario as Belfius used the official regional flood maps that are more precise than the map at NUTS3 level proposed by the ECB, a coastal flood/sea level rise risk was also considered in the scenario and several shocks in the form of haircut levels on the value of the properties were applied.

Results from this sensitivity analysis showed that the absolute impact on the cost of risks remained limited even in the most severe scenario (where the cost of risk only increased by around 15%) as less than 12% of Belfius' exposures are located in a zone that is considered as subject to flood risks.

Following this first internal stress test exercise, Belfius plans to include additional and fine-tuned scenarios in the future.

### Scenario analysis tables from the internal climate stress tests

Scenario	Risks evaluated	Time horizons and intervals	Modelling assumptions	Sector exposure and business segment scope	Granularity of the assessment	Approach and methodology	Portfolio scope, coverage and exclusions	Output metric
Own flooding risk scenario based on ECB's supervisory climate stress test scenario	Physical risks (flood risk)	Frontloaded impact in 2022	Static balance sheet Damages insured	Mortgage Loans	Asset	Applying several haircuts to the market value of the collateral in function of the flood risk level associated with their location	100% of the portfolio	Intermediary metrics: Collateral market value, LGD and LTV  Final metric: Cost of Risk

(1) As illustrated in the CC1 table in the Risk report annex, the agriculture and mining sectors only represent very limited exposures on Belfius Bank's balance sheet. The quality of Belfius Bank's exposures in the energy sector should also be underlined as Belfius does not have any coal-extraction exposure based on available NACE data, has put strict lending limits in place for companies active in fossil fuel related industries and finances a lot of renewable energy projects.



VIII. 3.2.3. Monitoring and reporting of ESG risks

Another area of progress with respect to the ESG risk management is the setup of a monitoring and management process.

In order to properly monitor environmental and climate risks, Belfius is in the process of setting up an ESG Risk Dashboard. This tool lays the foundations for the comprehensive management of ESG risks and can be used to both support strategic objectives and ensure the institution’s global resilience. It is reviewed and monitored on an ongoing basis. Indicators relate, for instance, to the availability of counterparty or asset level data.

A dedicated EPC dashboard has also been set up which allows for a follow-up of (the evolution of) the EPC label distribution of the immovable properties used as collateral by Belfius.

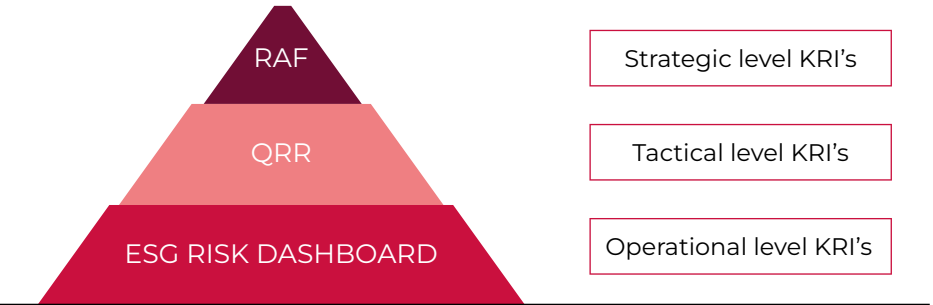
Some of the input from the ESG Risk Dashboard is integrated in the Quarterly Risk Report (QRR) submitted to the Management Board and the Board of Directors. Examples of relevant indicators include statistics about the collection of EPC data and the distribution of EPC scores within the mortgage loans portfolio, a breakdown of the ESG scores assigned to the suppliers, and metrics about operational events in the field of ESG (e.g. litigations, fines, penalties).

Finally, the key risk indicators have been translated in limits incorporated in the Risk Appetite Framework (see section “mitigation of ESG risks” below for more details). The RAF includes, for instance, dedicated KRI’s relating to the follow-up of the timely implementation of the ECB ESG action plan and the achievement of Belfius’ decarbonization targets of Belfius’ own operations. That way, Belfius ensures that some yearly minimal improvements are met so as to achieve its 2025 carbon footprint reduction target (-25% compared to 2019). The evolution of the average CO<sub>2</sub> emission of Belfius Auto Lease’s car fleet is also subject to a monitoring process. The goal here is to reduce the average CO<sub>2</sub> emissions in tonnes/car/year by 50% compared to 2019, by 2025. In 2022, a total reduction of 29% has already been achieved.

When mature, additional input from the ESG Risk Dashboard is expected to feed through to other strategic decisions such as limits at individual or portfolio-level and adjustments to Belfius TAP with financing conditions or exclusions.

Sustainability related commitments and targets are also monitored and reported to the Board of Directors on a regular basis throughout the year. Further, relevant teams (e.g. legal, risk, ESG central team) monitor environmental and climate-related regulatory risks on quarterly basis to ensure the full compliance with the related regulations.

KRI mapping





### Gold digging: the search for accurate ESG data

Gathering granular data (at counterparty/asset level) is crucial but remains challenging, especially for the non-listed or less large companies where most data points are not yet publicly available and sometimes even nonexistent.

A mix of internal and external data sources such as open source data, data from external service providers or data submitted directly by customers are being used to this end. Proxies and estimations are being developed to fill the gaps.

Belfius has set up a dedicated ESG Data Program in 2020 which mainly focused on:

- the setup of a data (governance) framework
- the identification of all data needs
- capturing the required data and ensuring consistency between data sources (one single version of the truth)
- designing new calculation engines where appropriate ( for instance, for carbon accounting purposes)
- storing and making the data and outputs of calculation engines available to all business units

As of now:

- Some important data points are already readily available in Belfius' systems but need to be improved upon to finetune Belfius' risk analysis:
  - NACE codes: the sector corresponding to a company's main activity is known, but Belfius requires comprehensive and granular identification of all material activities carried out by a company.
  - Addresses: the localization of a company's headquarters and the immovable property used as collateral is known but further identification of addresses of all immovable properties owned or used by a company (storage facility, plant, shop, etc.) is needed.
- Availability of some other crucial data points remains limited:
  - GHG emissions:
    - At this stage, only listed and large companies disclose their carbon footprint (but covering varying scopes which poses comparability issues).
    - This information is mostly collected either via a third party provider or through a questionnaire/survey to be filed by the customer.
    - A workaround is foreseen via a proxy calculated using PCAF emission factors and based on companies' revenues.
  - EPC:
    - As Belgian banks have not been granted access to the regional EPC registers, they have to collect the certificates directly from customers.
    - The EPC certificate has become a mandatory document in the credit granting process since 2021 and is available in around 70% of the new mortgage production of 2022 (as regional EPC regulations only impose the drafting of an EPC in certain cases, reaching a 100% coverage is impossible).
    - Following some communication actions, Belfius also managed to capture this information for a limited share of its lending stock predating 2021.
    - For properties where EPC data is lacking, a workaround will be set up via a proxy provided by third party.



### VIII. 3.2.4. Mitigation of ESG risks

To mitigate the identified environmental and climate risks, Belfius has put in place a series of key measures.

#### Financing limitations with the Transition Acceleration Policy

The TAP serves as a risk management tool for the whole group by excluding or restricting the financing of activities deemed non sustainable, enabling Belfius to lower its exposure to those activities, which present increased financial and reputational risks. This policy is applicable to all types of activities and was immediately applied to new customers since its introduction. Customers who were not in line with the guidelines, were not onboarded, and the TAP is currently being applied to existing customers on a progressive basis as well. Belfius' commitment to the TAP has also triggered modifications to other policies and guidelines, such as the credit acceptance policy and investment risk framework.

#### Financing limits with the Risk Appetite Framework

Belfius Risk Appetite Framework (RAF), which already included social and governance key risk indicators, is gradually enhanced year on year with a revision of ESG-related qualitative statements and the inclusion of additional ESG quantitative risk indicators. The governance around these climate-related key risk indicators follows the one defined for the RAF in general.

New limits that will be implemented as from 2023 relate, among others, to fossil fuel exposures, the share of mortgage loans collateralized by immovable property located in zones subject to medium or high flood risk, and the proportion of Belfius Bank's mortgage loan production collateralized by real estate assets with very low energy performance certificates.

The targets set on a one year horizon, are revised on a yearly basis and are expected to be stricter over time to meet long term objectives. A first threshold is set that triggers internal escalation to relevant management bodies, a second threshold requires corrective actions.

Belfius aims to gradually extend the number of key risk indicators, to include a monitoring and control of indirect impacts through financed activities, and to implement additional and more granular targets and limits.

#### Other measures

Climate and sustainability dimensions are gradually included into business practices for all Group activities, leading to certain climate risk mitigation by design (such as the ESG score or the environmental due diligence).

In line with its overall group sustainability strategy that covers all business activities (i.e. lending, insuring, investing), Belfius' commitments to decarbonize, to align its portfolios with the Paris Agreement through SBTi and the ambition to increase its positive impact in the value chain through its green product and service offering, provide further safeguards in managing risks stemming from environment and climate.

#### Opinion regarding Belfius' resilience

Belfius is convinced that, in the context of significant expected macro- and microeconomic changes stemming from the transition to low carbon, climate-resilient and environmentally sustainable economy, its climate-aware business strategy and risk management framework combined with its robust balance sheet structure will ensure resilience and growth opportunities. This conviction is underpinned by the results of the supervisory and internal climate stress tests that confirm environmental and climate-related risks do not pose a significant threat to Belfius' profitability, capital position and liquidity buffers in the given scenarios for the time being.

# IX. Other financial risks

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## IX.1. Settlement risk

### Definition

Settlement risk is defined as the risk that the credit institution will deliver the sold asset or cash to the counterparty and will not receive the purchased asset or cash in return as expected.

This risk is not to be confused with the operational risk classified under “Execution, delivery and process management risk”. The settlement risk only refers to the situation where the delivery process fails because of a solvency issue.

### Organisation and management of the Risk

A common practice to reduce settlement risk is to proceed through an intermediary performing Delivery Versus Payment (DVP). For Forex in particular, there is one main agent: Continuous Linked Settlement (CLS). With DVP, one can say that the risk becomes immaterial. Belfius aims to generalise the recourse to DVP.

Historically, there has been no instance of loss related to this risk at Belfius and very few externally. In fact, losses would only occur if Belfius simultaneously faces a mismatch in the delivery against settlement process and the default of the counterparty bearing the resulting temporary exposure. Of course, both events can be strongly correlated: a bank close to bankruptcy is much more likely to fail in its settlement duties.

### Capitalisation

Settlement risk capital is currently not computed via a statistical model but rather results from the occurrence of a single settlement problem (a presumably very rare event that never impacted Belfius so far). It therefore consists of a fixed amount set a priori based on a judgemental assessment.

## IX.2. Funding risk

### Definition

Funding risk refers to potential losses linked to Belfius' ability to raise the funds necessary to refinance its debt, cash requests, margin calls, ... Funding risk also results from unexpected changes in Belfius funding mix that may impact the refinancing cost. In some unfavorable cases, assets may have to be sold at stressed market price to close the funding gap, impacting the P&L through capital losses.

### Organisation and management of the Risk

For more details regarding the Organisation and Management of funding risk, please refer to Risk Management Governance - II.4.2.3.3. Risk organisation.- Strategic Risk Management.

### Capitalisation

Funding risk capital is not computed via a statistical model. Its calculation is based on scenario analysis, with a severe liquidity stress test considering a combined systemic and severe lack of confidence of the market about Belfius solvency during a global liquidity crisis and affecting its income statement.

This liquidity stress scenario will generate a funding risk which can be defined as the sum of P&L impacts resulting from the cost linked to the replacement of the existing funding that left the balance sheet by funding obtained through pledging the assets from the liquidity buffer at ECB.



In line with economic capital standards, the loss incurred over one year is measured and the confidence interval of the considered scenario (a presumably very rare event) is assumed to be 99.94%.

## IX.3. Behavioural risk

### Definition

Behavioural risk is defined as the potential change of exposure to interest rate and funding risks due to the uncertain behaviour of customers.

On the liability side, it includes the uncertain amortization of non-maturing liabilities, such as deposits, and the uncertain rate of termination of insurance contracts (also referred to as “lapse” risk within Solvency 2). On the asset side, it includes uncertain prepayment schedules.

The uncertain amortisation of non-maturing liabilities, such as certain types of deposits, forms the outflow risk and is integrated within the funding risk approach as described in the previous section. For example, customers may decide to reduce their savings or their sight accounts impacting the Bank’s interest rate position.

### Organisation and management of the Risk

Behavioural risk is managed through sensitivity reported to the members of the Belfius ALM Committee. In addition, this risk is included in the Belfius Economic Capital reporting.

### Capitalisation

Behavioural risk is capitalised through a prepayment risk capital approach which relies on a statistical model.

## IX.4. Pension plan risk

### Definition

Pension plan risk is the risk stemming from commitments on employee pensions plans (e.g., pension and post-employment employee benefits).

These commitments and the related assets are externalized to an insurance company or an OFP (Organization for Financing Pension – legal form in Belgium) . Belfius Bank pays premiums to the insurance company or pays contributions to the OFP. The contributions in the OFP are invested in assets (equity and bonds). Belfius Bank remains the ultimate responsible for the commitments.

The risk for a pension plan is that the net present value of its liabilities (commitments to employees) is higher than the net present value of its assets (investments in the OFP or the value of the commitments of the insurance company).

As a result, pension plan risk covers a set of underlying risk drivers. The most important are market risk (interest rate risk, equity risk, inflation risk), credit risk and behavioural risk (turnover, mortality).

### Organisation and management of the Risk

The OFP grants an investment mandate to the pension fund asset manager. This investment mandate establishes clear investment objectives for the pension fund, consistent with the characteristics and the risk appetite of the pension fund.

The approach for achieving these objectives takes into account the need for effective risk management, diversification needs and asset allocation limitations.

The ALCo evaluates the risks in the OFP and insured pension plans and decides if further mitigation is required.



## Capitalisation

Pension plan risk is capitalised. The risk capital is based on a mix of several risk factors.

## IX.5. Model risk

### Definition

Model risk is defined as the potential risk assessment errors resulting from inadequate methodology and models, and/or data uncertainty or from the inappropriate use of models.

The major issues that should be addressed by model risk are the following:

- risk of poor model development/back testing;
- risk of incorrect model calibration or rank ordering power;
- wrong data use and/or data problems;
- inadequate model usage;
- risk of population and/or performance non-stationarity.

### Organisation and management of the Risk

In addition to the Economic Capital assessment that is carried out for model risk, the risk of each issue described above is mitigated by a process-oriented handling of model risk.

Without being exhaustive, the following practices are used for containing model risk:

- allocating experienced professionals to the development of risk models;
- developing a specific margin of conservatism layer on top of the model output
- providing a systematic “four eyes approach” via the independent model validation;
- monitoring and capitalising model risk within the Belfius Economic Capital framework.

## Capitalisation

For each risk type and each economic capital calculation methodology, the potential increase (not decrease) of economic capital resulting from model risk is assessed using a unified scorecard approach. It includes the result of quantitative and qualitative assessments of the models and is also linked to the outstanding validation recommendations. This judgement results in an “uncertainty coefficient” depending on the perceived comfort “with which the model has been developed and implemented and is being fed and used”.

## IX.6. Conglomerate risks

### Definition

A distinction is made between:

- “Group consolidated risk” which is the risk inherent to a “group” i.e. a company owning and consolidating other companies, whatever the sector the company and its affiliates belong to; and
- “Conglomerate risk” which is the risk arising from a group of companies - a financial conglomerate - composed of credit institutions, insurance undertakings and investment firms. The conglomerate manages financial companies regulated under at least two different prudential frameworks (Banks and Insurance).

Conglomerate risk comes on top of “group consolidated risk” as the financial conglomerate will be submitted to “group consolidated risk” and to “conglomerate risk”.



A distinction is made between financial risks on the one hand, and non-financial risks on the other hand. The following conglomerate risks are defined at Belfius:

### Financial Risk

- Regulatory inconsistency could lead to 'double gearing', where the same capital, issued by the conglomerate, is being counted twice, to satisfy both banking and insurance capital requirements. Another result of inconsistency is 'excessive leveraging', which can occur when debt is issued by the conglomerate and the proceeds are given as equity to the regulated subsidiary. Because of regulatory inconsistency a financial conglomerate could shift activities from one of its banks to one of its insurance firms, or vice versa, if the respective capital requirements are lower.
- Intragroup insurance contracts are contracts between the insurance and the bank. These will not be effective at conglomerate level (e.g. property risk).

### Non-Financial Risk

- Contagion/reputation: financial difficulties in one subsidiary in one sector could have contagion and/or reputation effects on another subsidiary in a different sector, especially when using the same brand name. In that case, the conglomerate may be more vulnerable than its stand-alone subsidiaries.
- Moral hazard – subsidiaries: subsidiaries may assume help from the holding company in cases of financial stress and behave riskier in a financial conglomerate than as a stand-alone institution.
- Moral hazard – conglomerate level: at conglomerate level, the moral hazard risk associated with the 'too big to fail' position may exist.
- Size & complexity: it becomes more difficult to manage and understand the operation of a firm as the organization grows. Both these issues are not specific to financial conglomerates but arise because financial conglomerates tend, generally, to be larger than pure sectorial players.
- Governance and conflict of interest: as financial conglomerates run activities in different sectors (Bank, Insurance, Investment services ...) they may be more exposed to conflict of interest. These may arise from subsidiaries vs mother company, from promoting banking products vs insurance or investment products, confidentiality conflicts, etc.
- Concentration between sectors linked to outsourcing (same service providers, back office services, ...), continuity (BCP, DRP, workplace safety, employment...), business practices (products, new business, CSR, ...), strategic risk, legal, tax and compliance risks and IT risks.

## Organisation and management of the Risk

With regards to conglomerate risks, Belfius has put in place several mitigating actions. We refer to some of them (not exhaustively) below.

- The Belfius Capital Group committee in charge of monitoring the adequacy of capital management at conglomerate and sector level.
- There exist a capital and dividend policy at Group level with consistency at entity level.
- FICOD test give a view of the regulatory capital needed to cover risks in each part of the conglomerate.
- Stress Tests are designed and run at Group level but also at bank and insurance levels.
- ECAP and EaR are computed at group level giving an exhaustive view of the capital needed to cover all major risks.
- A cartography of intragroup insurance contracts has been set up and monitoring takes place on a regular basis.
- There are reinsurance rules above specific thresholds.
- There is a common communication and reputation follow-up at Group level.
- At Group level, several joint committees are in place at the highest level: Joint RC/RUC Committee, Joint AC Committee, Joint Management Committee (Group Management Board), Conglomerate Monitoring Committee, potential conflicts between Bank and Insurance BoD are dealt at the level of the Group Mediation Committee

## Capitalisation

The conglomerate risks are not covered by capital seen the multiple mitigating actions in place





# X. Belfius Insurance risks

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For more information regarding the Belfius Insurance risks, we refer to the chapters Risk Management of the Annual Report 2022 of Belfius Insurance, Risk Management and the Belfius' Management report (see dedicated section on insurance risks)

# XI. Appendices

## XI.1. Information exempted from disclosure

The following templates have been identified as not applicable to Belfius and therefore are not included in this report:

- Disclosure of templates CQ2, CQ6, CQ8 and CR2a is only required for entities with a non-performing loan ratio (NPL) of 5% or above. The NPL ratio of Belfius is below this threshold and therefore these 4 templates are not applicable, while partial disclosure is allowed for templates CQ4 and CQ5.
- **CQ7 Collateral obtained by taking possession and execution processes:** the recovery procedures used by Belfius are based on the best possible performance of the available collateral. The legal procedures used are based on the transfer of property received as collateral and not on the transfer of ownership.
- At Dec 31st 2022, there were no active loans and advances subject to EBA-compliant moratoria since all those moratoria have expired. Consequently, the **Template 1** of the EBA guideline on disclosures of exposures subject to measures applied in response to the Covid-19 crisis is not longer disclosed
- **CR7 – IRB approach – Effect on the RWA of credit derivatives used as CRM techniques:** Belfius does not typically secure its credit exposure by buying protection via credit derivatives. At the current time, the Belfius credit derivatives are not used for RWA reduction via credit risk mitigation but are used in the context of its market risk activities, including CVA risk hedging.
- Templates CR10.1, CR10.2, CR10.3 and CR10.4 refer to the slotting approach for specialised lending which is not applied by Belfius (No approved model or no exposure).

- **CCR7 – RWA flow statements of CCR exposures under the IMM:** Belfius does not use the Internal Model Method (IMM) methodology for measuring the EAD for counterparty credit risk exposures.
- **SEC2 - Securitisation exposures in the trading book:** Belfius does not have any exposure to securitisation positions in its trading book under the credit risk framework.
- The role of Belfius on securitisation is described in the sections IV.6 and VI.2. Belfius acts either as original lender or as investor. Consequently, the tables **SEC3 - Securitisation exposures in the non-trading book and associated regulatory capital requirements - institution acting as originator or as sponsor** and **SEC5 - Exposures securitised by the institution - Exposures in default and specific credit risk adjustments** are not applicable

The following templates are **partially included** in this report as part of their requirements have been identified as not applicable to Belfius:

- As Belfius does not apply the Foundation IRB approach to credit risk exposures, disclosures related to the F-IRB approach are not provided in the templates CR6 and CR7-A
- Template MRB: qualitative disclosure is limited to the VaR/ SVar models as Belfius has no correlation trading portfolio and is not subject to capital requirements for incremental default and migration risk



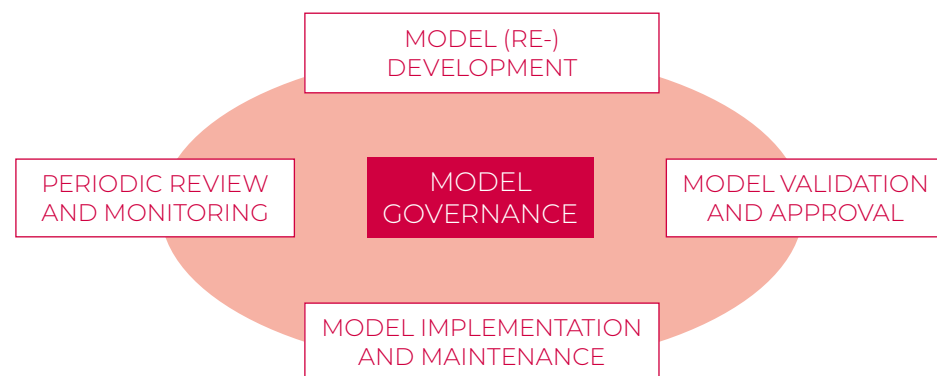
## XI.2. Risk methodology

### XI.2.1. Qualitative disclosure information related to IRB approach

In accordance with CRR2 Article 452, Institutions calculating risk-weighted exposure amounts under the IRB approach are required to disclose not only quantitative information on the IRB metrics and their impacts on capital requirements but also qualitative information on the internal rating systems, including the organisational structure and control mechanisms around models' development, calibration and validation, the methods and data for estimating and validating the risk parameters, and the internal use of the internal risk parameters and measurements in the internal risk management and decision-making processes. This section aims to address these qualitative disclosure requirements

#### XI.2.1.1. Internal ratings' organisational structure and governance

The internal rating process is organised around the main phases of the model life cycle as shown in the following figure: the model (re-) development, the model initial validation and approval, the model implementation and maintenance and the periodic review and performance monitoring.



- The team scoring and rating models is part of the Risk Modelling division and is responsible for the entire process of developing, implementing and maintaining the IRB models. The team is also responsible for the periodic review and monitoring (i.e back-testing<sup>(1)</sup>) of the models.
- As provided for in point II.4.2.3.4 the validation division of the risk department is set up as a single, independent expert control team responsible for the independent initial validation of the internal models before their implementation and use for the estimation of minimum own funds requirements and other use tests, and after their implementation by performing regular assessment on the compliance of the models and associated processes (including model use) to the relevant regulations. The validation division reports directly to the CRO and is not involved in any model development in order to guarantee its independence.. The activities of the validation team are summarised in reports indicating the controls that were performed, their findings, proposed corrective actions and, when required, a validation status. These reports are also used to inform senior management through the Risk Executive Committee about the performance of the rating models and rating processes, areas needing improvement, and the status of efforts to improve previously identified deficiencies in line with Article 189 of Capital Requirements Regulation.
- In line with the corporate governance of Belfius, internal audit acts as third line of defence with regards internal rating systems. In this context, Internal Audit conducts each year a dedicated mission by credit activity segment/type (Retail, Corporate, Public) that aims at assessing the origination and the servicing of the credit activity line including the related models, with the aim to provide the oversight bodies with reasonable assurance with regards to the evolution of the models developed and used, the material changes and the validation process (respect of planning, evolution of major recommendations raised by the Validation team...)
- Model validation is also responsible of some KRI's of the Belfius RAF aiming to monitor the status of the credit and market IRB models validation.

(1) Back-testing at least on annual basis. And the results are independently validated by Model Validation.

The Internal Rating System's (IRS) decisions are governed through two main committees:

### The Risk Executive Committee

Composed of the CRO and of his direct reports, it takes the final decisions regarding the models:

- Approve to submit the new developed models or material changes to existing models for ECB supervisory approval (or decide on direct implementation of the model changes within the internal systems if prior ECB approval is not required);
- endorsement of the validation reports on the recurrent models' follow-ups (annual back testing and operational audit);
- endorsement of the corrective action plans recommended by Validation.

The Risk ExCom decisions are further presented to the Risk Policy Committee.

### The Rating Committee

The key role of the Rating Committee is to monitor the appropriate use of internal rating systems within the Bank as a whole and to ensure that these IRS are effective. For these reasons, the Rating Committee:

- validates overrides, above tolerance threshold, proposed by the risk analysts<sup>(1)</sup>
- monitors the homogeneous application within the Bank of the rating and derogation principles;
- validates operational establishment of the models once they are validated by the Risk ExCom.

For the broader view of the different risk committees, we refer to section II.2.3 on Risk governance structure

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(1) Dedicated "Overrides Committees" are regularly organized for that purpose.





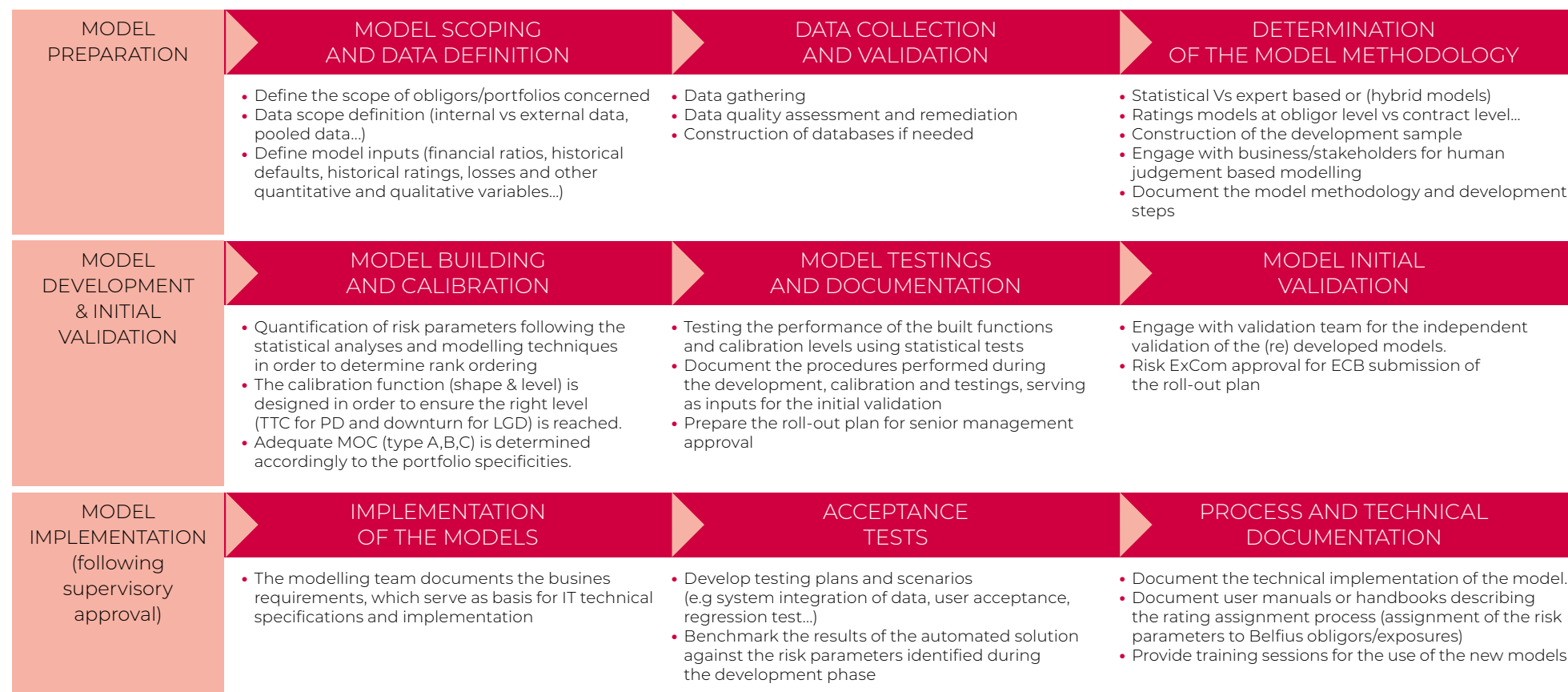
## XI.2.2 Internal rating's main processes

### Models development, validation and implementation

The key process steps followed by Belfius bank for the development, initial validation and implementation of its internal models can be summarized in the diagram hereafter.

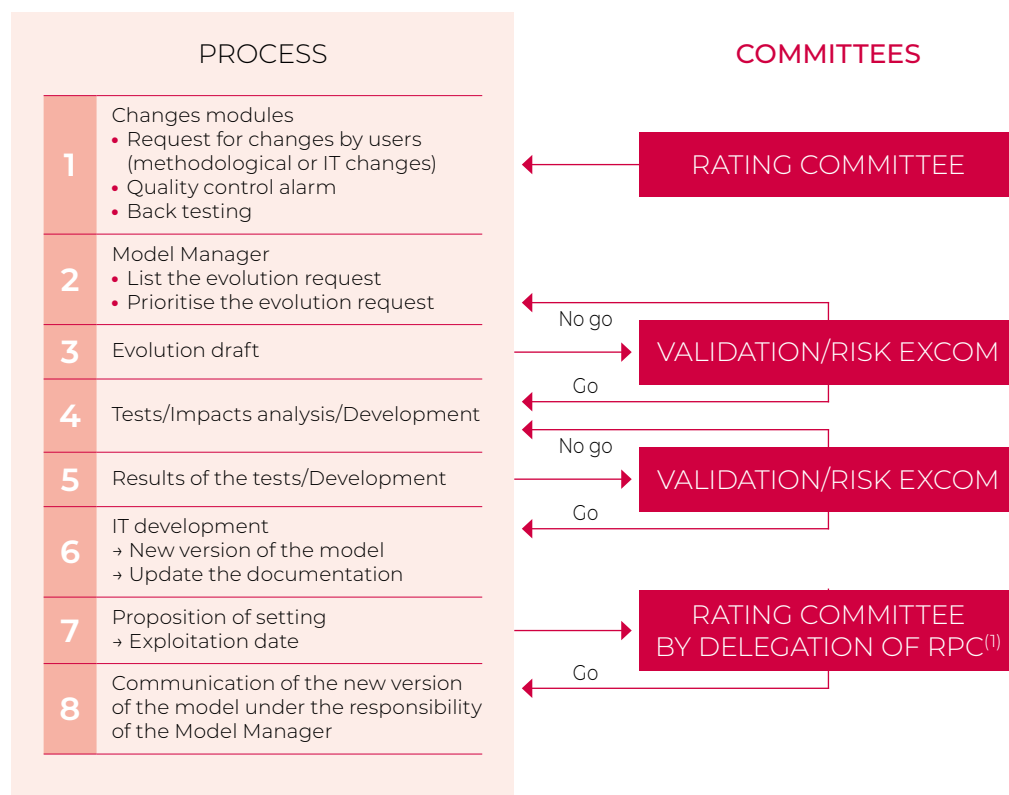
### Maintenance of the Models

As mentioned below, the scoring & rating models team is responsible for the ongoing maintenance of the developed models.





The model maintenance process is detailed in the diagram hereafter. The process also ensures that, before actual implementation of the different changes to internal models, the material changes receive appropriate competent authorities approval, while other non-material extensions and changes are notified to the competent authority in line with Commission Delegated Regulation 529/2014 with regard to regulatory technical standards (RTS) for assessing the materiality of extensions and changes of the IRBA.



As part of its ongoing model transformation plan running until 2023, Belfius is undertaking several initiatives aiming at enforcing its processes for the redevelopment and the maintenance of regulatory compliant internal models, including improving the technical capabilities of its modelling environment, investing in more agile delivery tools for models' implementation improving models' development and monitoring frameworks by including current industry best practices as well as reducing the number of models under management.

### Periodic review and monitoring of the models

In accordance with Capital Requirements Regulation Article 179(1)(c), risk estimates should be reviewed when new information comes to light but at least on an annual basis. The ECB considers it good practice to do this on the basis of:

- the ongoing monitoring performed by a Credit Risk Control Unit and
- the annual validation of internal estimates performed by the validation function<sup>(1)</sup>.

Belfius is organized to meet the CRR and ECB requirements: as previously mentioned, the scoring & rating models' team takes the role of the ongoing monitoring of risk estimates, this is currently done on annual basis.. The validation team also perform an annual review of the IRS, its functioning and compliance with all minimum regulatory requirements.

The controls to be performed cover the whole chain of production of the regulatory parameters under all its aspects. These controls are embedded within the model maintenance process as described above, in the sense that remediation measures to be performed as part of the model maintenance process, are the result of the level of deficiencies detected following the monitoring and validation activities.

(1) ECB guide to internal models, October 2019, point 3 – Internal governance, 3.7 – Review of estimates.



Below is a **non-exhaustive** list of controls to be performed by the relevant teams. For some controls, multiple tests can be employed (e.g from visual inspection using boxplots and benchmarking analyses to statistical metrics accepted by industry practice such as AUROC<sup>(1)</sup> and kendall's tau for assessing the discriminatory powers, Wilcoxon signed rank test for the calibration accuracy, population stability index (PSI) for stability...). The selection of controls and relevant metrics to execute will depend on the materiality of the portfolios being reviewed, number of available defaults and loss experiences and the type of model validation to exercise (initial validation, extensive validation or recurrent monitoring/backtesting exercise).

#### Controls dimension

##### ASSESSMENT OF THE COMPLETENESS OF MODEL DOCUMENTATION

MODEL INPUTS	Assessment of relevance of model inputs
	Assessment of the data quality process, including data completeness, accuracy, consistency, validity and traceability of data
	Assessment of the assignment of counterparties to the right model
MODEL DEVELOPMENT AND CALIBRATION	Assessment of the chosen methodology
	Assessment of the predictive ability of the model
	Assessment of the discriminatory power of the model
	Assessment of the stability of the model
MODEL IMPLEMENTATION	Review of Business and technical requirements
	Review of the acceptance criteria
	Review of the IT architecture, its capacity and efficiency
MODEL USE	Assessment of the correct use of models by analysts
	Assessment of the models' appropriateness by analysing the occurrence of overrides
	Are the rating procedures respected? Including performing ratings in a timely manner?
	Are the parameters sufficiently embedded within the risk management and decision making process?
	Assessment of the responsiveness of the model in case of unexpected/ extreme events under the stress testing process
	Assessment of the ongoing compliance of the models with regulatory and legal environments

(2) Area Under the Roc curve.

## XI.2.3 Definitions, methods and data for Estimating PD, LGD and CCF

### Default Definition used in the Models

In order to harmonize risk identification and reduce unwanted RWA difference between institutions, EBA has issued additional guidelines on the default definition provided for under CRR, providing among others with quantitative materiality thresholds to consider for the days past due computation and the application of a probation period for all defaulted loans, which means that for regulatory purposes, a credit will remain in default for a certain period after curing. This material change has been implemented in March 2021 within Belfius internal processes and models have been recalibrated accordingly.

### Equity and Securitisation Transactions

No internal models have been developed specifically for equity or securitisation transactions which follow a different regulatory approach. Securitisation risk weighting is based on external and not internal ratings (see IV.6.).

Equities do not require the development of specific models (see IV.5.). the equities under the PD/LGD approach are assigned the same parameters as a debt obligation on the same counterparty using the existing internal models.



## Main Principles used for estimating the PD

Type of counterparties	Number of models	Portfolios	Model methodology	Time Series Used	Internal/ External Data	IRB asset class
Sovereigns	1	Countries, central banks, embassies, debtors of which liabilities are guaranteed irrevocably and unconditionally by central governments or central banks	Expert scorecard	> 10 years	External	Central government
Banks	1	Credit institutions	Statistical model	> 10 years	External	Institutions
Insurance Companies	1	Insurance companies/Monoliners	Statistical model	> 10 years	External	Corporates
Corporates	1	Large non listed or listed companies with annual sales >= 50 MEUR or belonging to a group with total annual sales >= 50 MEUR	Statistical model	> 10 years	Internal + External	Corporates
Local Public Sector	1	Belgian regional governments/ Belgian local authorities and Belgian Public interest organisations (PIO) assimilated to Belgian central and regional governments	expert based approach or assimilation approach	> 10 years	Internal + External	Central government/ institutions
Specialised Lending	1	Project finance - Energy and infrastructure	Statistical model	6 years	Internal	Corporates
Mid-Corporates	1	non-listed companies with total turnover <50 MEUR and belonging to a group with a consolidated turnover < 50 MEUR and total assets > 5 MEUR	Statistical model	6 years	Internal + External	Corporates
Other Satellites	1	Non Public undertakings sponsored by public authorities	Mixed statistical & expert based approach	5 years	Internal	Corporates
Public Satellites	1	Belgian Public undertakings sponsored by public authorities		5 years	Internal	Institutions
Retail	4	Individuals, self-employed & Small enterprises	Statistical models	2 years	Internal	Retails

## Main Principles used for estimating the LGD

Type of counterparties	Number of models	Main Hypotheses	Time Series Used	Internal/ External Data
Sovereigns	1	Expert score function on the basis of Fitch country loss risk methodology and internal expert knowledge to discriminate between high and low loss risk.	> 10 years	Internal + External
Banks	1	Statistical model derived from LGD corporate model and integrating additional risk factors adapted to banking counterparties (country of residence, business profile, etc).	> 10 years	Internal + External
Insurance Companies	1	Statistical model based on external rating agencies loss data. The LGD depends on counterparty rating, exposure seniority level, geographic region and macro-economic factors.	> 10 years	Internal + External
Corporates	1			
Local Public Sector	1	Statistical model based on the internal existing default cases observed which were related to French municipalities. Final LGD are segmented on the basis of the number of inhabitants and on an economic parameter.	> 10 years	Internal
Specialised Lending	1	This model belongs to the 'Workout LGD' type: the LGD computation was developed according to the workout of the bank during a 10-year period concerning internal Project Finance default facilities. Cash flows are estimated on the basis of the observed historical recovery process, and LGD is computed by means of discounted cash flows.	10 years	Internal
Mid-Corporates	1	The LGD model is a white box model with explanatory variables: number of workout years. The LGD is calculated as the multiplication of the LGD unsecured (LGD when the loans are not collateralised) and of the haircut factor taking into account the collateralisation of the loan.	7 years	Internal
Other Satellites	1	On the basis of internal observation and expert judgement.	5 years	Internal
Public Satellites	1			
Retail	3	LGD determined by product type based on workout recoveries flows. Huge number of counterparts, individual valorization of collateral impossible. Professional loans are segmented in 5 classes based on value of collateral.	7 years	Internal





## XI.2.4. Business integration of internal estimates

Internal estimates of Basel parameters are used within Belfius Bank, at present covering a large number of applications in addition to the calculation of the regulatory risk-weighted exposure amounts. They are notably used in the following fields:

- decision-making process;
- credit risk management and monitoring;
- internal limit determination;
- provisioning methodology;
- pricing;
- Financial Planning, Stress Testing (in case of Crisis burst for instance);
- ...

### Decision-Making Process

Basel parameters are key elements considered by the Credit Committee in assessing the opportunity to accept or reject a transaction. Credit guidelines have been updated in order to integrate Basel parameters while assessing credit proposals.

### Credit Risk Management and Monitoring

Basel parameters are actively used in periodic credit Risk reporting and also for the individual follow-up of distressed transactions and counterparties within Watch List Committees.

Belfius Bank integrates the Basel parameters to define new internal reporting on the basis of a unique and common reporting credit risk data warehouse and uniform concepts. The counterparty internal ratings, the LGD, the level of EL and the regulatory weighted risks are the key Basel parameters used within the new internal reporting and the credit risk portfolio review.

A central database registers internal ratings and keeps them available for all relevant needs.

### Internal Limit Determination

Basel parameters have been integrated for fine-tuning the Belfius Bank credit limit system and determining delegation levels for credit acceptance.

## Provisioning Methodology

The implementation of Basel parameters has made it possible to develop more synergies between accounting and prudential issues (IFRS/Basel), while relying on the processes, data and tools developed for the regulatory risk estimates.

The Basel notion of default and the accounting notion of impairment have converged in relation to Stage 3 impairments.

As a consequence, only defaulted assets identified as such in the Basel compliant risk management systems are identified as impaired assets for both accounting and risk management purposes.

## Pricing

To support the credit decision process, a RoNRE (Return on Normative Regulatory Equity) based on Normative Regulatory Equity is calculated, to measure the expected profitability of the credit transaction and/or even the full credit relationship with the customer. Not only the expected income in the form of interest margins is taken into account, however also, inter alia, the operational costs and losses which might be statistically expected on loans are also considered. As a consequence, the Basel parameters are therefore integrated in the pricing.

## Financial Plan & Stress Testing

The Internal rating model outputs are used by the strategic risk department teams to feed the Financial planning and its stress test version. They are of upmost relevance when assessing also forward-looking view regarding external economic event to account for as it was the case for the Covid-19 outburst during which PD's and LGD's were heavily challenged and used to forecast potential evolutions.

## XI.2.5. IFRS 9 impairment methodology

The definitions of 'past-due' and 'impaired' exposures used in the risk perspective are similar to the definitions used for accounting purposes. For more information on those definitions, we refer to the section **accounting policies** and the disclosure **9.2 credit risk exposure**.

The methods and approaches used for determination of Expected Credit Losses is briefly described in the section **accounting policies** of the consolidated financial statements. For an extensive description, we refer to the Risk Report of 2019.





## XI.3. Additional disclosures on the liability side

### XI.3.1. Belfius Bank originations

Belfius currently has two traditional securitisation vehicles: DSFB and Mercurius Funding. Another securitisation vehicle – Penates Funding – was liquidated over the course of 2022. The total assets of these companies amount to EUR 613 million at 31 December 2022 compared to EUR 3,875 million at 31 December 2021.

According to the definition of control under IFRS 10, DSFB and Mercurius Funding are included in the consolidated financial statements. Belfius has:

- full power over its securitisation vehicles;
- exposure to their variable returns; and
- the ability to use its power to affect the amount of the returns.

DSFB is a Belgian securitisation vehicle of which one compartment is active namely DSFB-2.

DSFB-2 is a securitisation transaction of loans granted to Belgian entities (public and other). All the loans are 100% guaranteed by a Belgian regional government. Under this transaction a single tranche of floating rate notes, fully guaranteed by Belfius Bank, was issued 25 April 2008. On 31 December 2022, EUR 613 million were still outstanding. The DSFB-2 Notes are held by Belfius Bank and its subsidiary Belfius Ireland.

Penates Funding is a Belgian securitisation vehicle of which one compartment was active during part of 2022, namely Penates-6. On 23 May 2022, the redemption option for the Penates-6 Notes was exercised. As a consequence, Penates Funding no longer had any active compartment. On 13 December 2022, the legal entity Penates Funding NV/SA was liquidated.

Mercurius Funding is a Belgian securitisation vehicle of which one compartment was active during part of 2022, namely Mercurius-1. On 24 October 2022, the redemption option for the Mercurius-1 Notes was exercised. As a consequence, Mercurius Funding currently does not have any active compartments.

### XI.3.2. Belfius mortgage pandbrieven programme

#### Belfius Mortgage Pandbrieven Programme

Total Amount Outstanding (in EUR)	9,992,000,000
Current Weighted Average Fixed Coupon	1.24%
Weighted Average Remaining Average Life	6.30

#### a/ Residential Mortgage Loans

Outstanding balance of residential mortgage loans	11,958,068,359
Number of borrowers	103,739
Number of loans	178,663
Average outstanding balance per borrower	84,604
Average outstanding balance per loan	49,124
Weighted average original loan to initial value	76.37%
Weighted average current loan to current value	41.64%
Weighted average seasoning (in months)	67.11
Weighted average remaining maturity (in years, at 0% CPR)	12.33
Weighted average initial maturity (in years, at 0% CPR)	18.00
Remaining average life (in years, at 0% CPR)	6.57
Remaining average life (in years, at 2% CPR)	6.01
Remaining average life (in years, at 5% CPR)	5.22
Remaining average life (in years, at 10% CPR)	4.20
Remaining average life to interest reset (in years, at 0% CPR)	5.96
Percentage of fixed-rate loans	87.13%
Percentage of resettable-rate loans	12.87%
Weighted average interest rate	2.08%
Weighted average interest rate fixed rate loans	2.22%
Weighted average interest rate resettable-rate loans	1.11%

#### b/ Registered Cash

Registered cash proceeds under the residential mortgage loans	312,308,925
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#### c/ Liquid Bond Positions

Mark-to-Market Value	78,555,925
Accounting Value	76,932,942

### XI.3.3. Belfius public pandbrieven programme

#### Belfius Mortgage Pandbrieven Programme

Total Amount Outstanding (in EUR)	1,211,000,000
Current Weighted Average Fixed Coupon	0.32%
Weighted Average Remaining Average Life	6.68

#### a/ Residential Mortgage Loans

Outstanding Balance of Public Sector Assets	1,678,254,451
Number of borrowers	652
Number of loans	19,380
Average Outstanding Balance per borrower	2,574,010
Average Outstanding Balance per loan	86,597
Weighted average seasoning (in months)	112.23
Weighted average remaining maturity (in years, at 0% CPR)	11.48
Weighted average initial maturity (in years, at 0% CPR)	20.87
Remaining average life (in years, at 0% CPR)	6.24
Remaining average life (in years, at 1% CPR)	6.00
Remaining average life (in years, at 3% CPR)	5.45
Remaining average life (in years, at 5% CPR)	4.97
Remaining average life to interest reset (in years, at 0% CPR)	5.59
Percentage of Fixed Rate Loans	86.12%
Percentage of Resetable Rate Loans	13.88%
Weighted average interest rate	2.56%
Weighted average interest rate Fixed Rate Loans	2.70%
Weighted average interest rate Resetable Rate Loans	1.64%

#### b/ Registered Cash

Registered cash proceeds under the Public Sector Exposures	33,806,484
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#### c/ Liquid Bond Positions

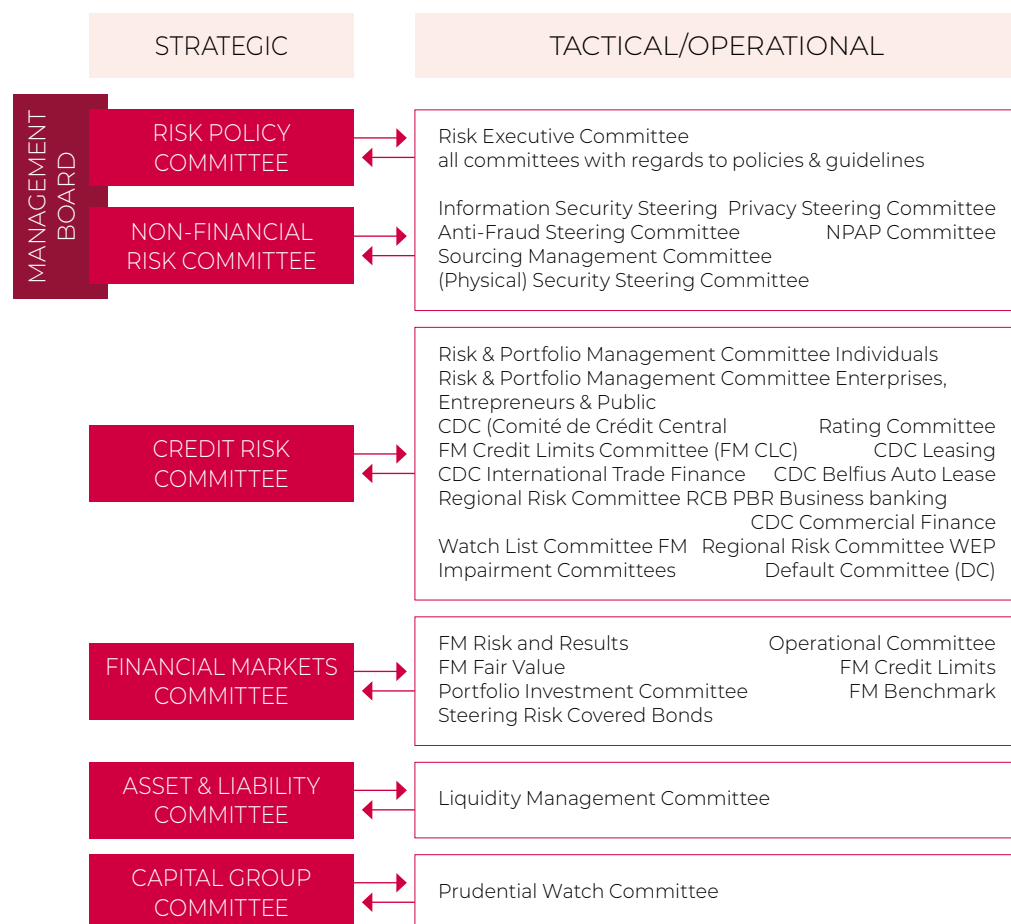
Mark-to-Market Value	7,113,223
Accounting Value	8,009,898





## XI.4. Additional information on risk governance structure

### XI.4.1 Risk Committees on tactical / operational level



The sub-committees for **Non-Financial Risk Management** are:

- the **Information Security Steering (ISS)** ensures a well governed and coordinated information security strategy;
- the **Anti-Fraud Steering Committee** is a platform for the internal control functions (Risk/ Compliance/Internal Audit) and a forum to reflect and organize a dialogue between the internal control functions and all the stakeholders (mainly operating in the decentralised expert units) regarding fraud risk management;
- the **Privacy Steering Committee** ensures a well governed and coordinated privacy strategy in line with regulatory requirements regarding privacy and personal data protection;
- the **(Physical) Security Steering Committee** oversees the (physical) security risk management in order to prevent and provide appropriate protection for all organizational assets of Belfius, with focus on people, from crime incidents and damaging natural elements such as fire;
- the **NPAP Committee** oversees the "New Product Approval Process" (NPAP) management, implementation and execution in order to ensure appropriate risk analysis to any new or changed function. In particular, the committee delivers a final opinion based on the advices of risk experts;
- the **Outsourcing Management Committee** defines and monitors Outsourcing Management. It is organised by Strategic Planning and Performance Management

The sub-committees for **Credit Risk Management** are

- the **Risk & Portfolio Management Committee Individuals** is a platform for structural consultation and dialogue, in order to increase the involvement of all stakeholders in the strategy and the functioning of risk management regarding individuals;
- the **Risk Portfolio Management Committee Enterprises, Entrepreneurs & Public (E&E&P)** is a platform for structural consultation and dialogue, in order to increase the involvement of all stakeholders in the strategy and the functioning of risk management regarding E&E&P;
- the **CDC (Comité de Crédit Central)**: the main Credit Committee, the CDC Central (specific delegations have been given to various lower credit committees): approves new credit transactions PC and RC and annual reviews of existing credit files (based on updated financial statements, i.e. without any adjustment of the current risk), that do not exceed its delegation limits and/or that do not lead to an exceeding of the prevailing credit limits; advises on new deals or limits that must be presented to the Management Board;



- the **FM Credit Limits Committee (FM CLC)** is described above under the Financial Market Risk Committees;
- the **CDC International Trade Finance** makes decisions with regard to transactions managed by the International Trade Finance department of Distribution ITF;
- the **Rating Committee**: the main purpose of the Rating Committee is to supervise the correct and coherent application of the various Internal Rating Systems within Belfius Bank and its subsidiaries, together with an assessment of their performance;
- the **CDC Leasing** and the **CDC Belfius Auto Lease** handle new credit applications, extension of lines with a specific duration as well as the periodic review of files;
- the **CDC Commercial Finance** handles new credit applications, extension of lines with a specific duration as well as the periodic review of files;
- the **Regional Risk Committee PBR Business Banking** monitors the regional loan portfolio, with a special focus on the counterparties whose credit profile is weakened (watch list). It is organised by region (NO, NW, SE, SO and Centrum & Branches);
- the **Regional Risk Committee WEP** monitors the regional loan portfolio, with a special focus on the counterparties whose credit profile is weakened (watch list). It is organised by region (NO, NW, SE, SO and Centrum);
- the **Default Committee (DC)**: the objective of the DC is to decide on and follow up the default status of counterparties, i.e. being a necessary condition for an impairment to be recognised;
- the **Impairment Committees**: the need of Belfius to oversee and govern IFRS 9 impairments resulted in a committee structure, consisting of one Expert Panel and three dedicated Impairment Committees (Stage 1, Stage 2 & Stage 3);

The sub-committees for **Financial Market Risk Management** are:

- **FM Risk and Results (FM RR)** reviewing business, risks, P/L reports and providing for an appropriate risk management and governance framework;
- **FM Fair Value (FM FV)**, in its capacity of Fair Value assessor, acts as a body in charge of "Fair Value Validation";
- **FM Benchmark**: follow-up of obligations of the Bank as panel bank for the contribution of Euribor and €STR;
- **Operational Committee (FM OC)** makes the follow up of operational issues;
- **FM Credit Limits (FM CLC)** approves credit limits requests related to all FM activities, Belins and WEP Trade Finance and monitors the associated credit risk for all the counterparties in scope;

- **Portfolio Investment Committee (PIC)** acts as the central supervisory and decision body on all matters regarding the management of legacy portfolios (ALM Yield portfolio and Credit Derivatives portfolio). The PIC also receives delegation from the ALCo for the follow-up of the ALM Liquidity portfolio;
- **Steering Risk Covered Bonds (SRCB)**: common Risk forum in order to communicate and to discuss regarding the Covered Bonds programs, reporting to the ALCO

## XI.5. Glossary

### *ABS Asset-Backed Securities*

Securities issued by a vehicle created for the purpose of buying assets from a bank, a company or a state, like trade receivables or inventories, and to provide the seller with cash and the buyer with a financial product that is characterised by a certain risk profile and a rate of return.

### *AIRB Advanced Internal Rating-Based Approach*

Institutions using the AIRB approach are allowed to determine borrowers' probabilities of default and to rely on own estimates of loss given default and exposure at default on an exposure-based on an internal model approved by the supervisor. These risk measures are converted into risk weights and regulatory capital requirements by means of risk weight formulas specified by the Basel Committee.

### *ALM Asset and Liability Management*

Managing of the net risk position between assets and liabilities, particularly with respect to imbalances generated by the evolutions of interest rates, currencies and inflation, but also maturity mismatch, liquidity mismatch, market risk and credit risk.

### *BRRD Bank Recovery and Resolution Directive*

The Bank Recovery and Resolution Directive (BRRD) provides the authorities with comprehensive and effective arrangements to deal with failing banks at national level and with cooperation arrangements to tackle cross-border banking failures. The directive requires banks to prepare recovery plans to overcome financial distress. It also grants national authorities powers to ensure an orderly resolution of failing banks with minimal costs for taxpayers. The directive includes rules to set up a national resolution fund that must be established by each EU country.

**CBFA** *Commission bancaire, financière et des assurances*

The Belgian Banking, Finance and Insurance Commission is the former Belgian Financial Institutions regulator, since April 2011 succeeded by the FSMA.

**CCF** *Credit Conversion Factor*

The ratio of the currently undrawn amount of a commitment that will be drawn and outstanding at default to the currently undrawn amount of the commitment. The extent of the commitment will be determined by the advised limit, unless the unadvised limit is higher.

**CDS** *Credit Default Swap*

Swap contract in which the buyer of the CDS makes a series of payments to the seller and, in exchange, receives a pay-off if a credit instrument (typically a bond or loan) undergoes a defined "Credit Event", often described as a default (fails to pay).

**CRD** *Capital Requirements Directive*

The Capital Requirements Directive (CRD) for the financial services industry introduces a supervisory framework in the EU which reflects the Basel II and Basel III rules on capital measurement and capital standards.

**CRM** *Credit Risk Mitigant*

Range of techniques whereby a bank can, partially, protect itself against counterparty default (for example by taking guarantees or collateral, or buying a hedging instrument).

**CRR** *Capital Requirements Regulation*

The CRD is the legal framework for the supervision of credit institutions, investment firms and their parent companies in all Member States of the European Union and the EEA. The CRR came into force on 27 June 2013, while the supervised entities within its scope are subject to it as of 1 January 2014.

The CRR-Regulation is directly applicable to anyone in the European Union and is not transposed into national law. Much of the CRR is derived from the Basel III standards issued by the Basel Committee on Banking Supervision (BCBS). It includes most of the technical provisions governing the prudential supervision of institutions.

**CSA** *Credit Support Annex*

A credit support annex provides credit protection by setting forth the rules governing the mutual posting of collateral.

**CVA** *Credit value adjustment*

Market CVA is the difference between the risk-free portfolio value and the true value portfolio value that takes into consideration the possibility of a counterparty's default. In addition to default risk capital requirements for counterparty credit risk, Basel III introduced an additional capital charge to cover the risk of mark-to-market losses.

**DR** *Default Rate*

The rate of borrowers who fail to remain current on their loans.

**DVP** *Delivery Versus Payment*

A settlement practice stipulating that cash payment must be made prior to or simultaneously with the delivery of the security.

**EAD** *Exposure At Default*

Estimate of the amount outstanding (drawn amounts plus likely future drawdowns of yet undrawn lines) in case the borrower defaults.

**EAD** *post CRM*

Refers to the amount relevant for the capital requirements calculation having applied CRM techniques; including financial collateral

**EBA** *European Banking Authority*

The European Banking Authority (EBA) is an independent EU Authority which works to ensure effective and consistent prudential regulation and supervision across the European banking sector. Its overall objectives are to maintain financial stability in the EU and to safeguard the integrity, efficiency and orderly functioning of the banking sector.

The main task of the EBA is to contribute to the creation of the European Single Rulebook in banking whose objective is to provide a single set of harmonised prudential rules for financial institutions throughout the EU. The Authority also plays an important role in promoting convergence of supervisory practices and is mandated to assess risks and vulnerabilities in the EU banking sector.

**ECAI** *External Credit Assessment Institutions*

Under the Basel II agreement of the Basel Committee on Banking Supervision, banking regulators can allow banks to use credit ratings from certain approved Credit Rating Agencies when calculating the risk weight of an exposure. Competent authorities will recognise an ECAI as eligible only if they are satisfied that its assessment methodology complies with the requirements of objectivity, independence, ongoing review and transparency, and that the resulting credit assessments meet the requirements of credibility and transparency.



### **ECB** *European Central Bank*

The ECB is the central bank for Europe's single currency, the euro. The ECB's main task is to maintain the euro's purchasing power and thus price stability in the euro area. The euro area comprises the 19 European Union countries that have introduced the euro since 1999.

### **EL** *Expected Loss*

The amount expected to be lost on an exposure from a potential default of a counterparty or dilution over a one-year period.

### **EOPIA** *European Insurance & Occupational Pensions Authority*

European Union financial regulatory institution aiming at promoting a sound regulatory framework and consistent supervisory practices in order to protect the rights of policyholders, pension scheme members and beneficiaries and contribute to the public confidence in the European Union's insurance and occupational pensions sectors.

### **FEAD** *Full Exposure At Default*

FEAD is the total exposure at default (EAD), including the total amount of a free credit line and other off-balance-sheet transactions (with the exception of derivatives), before application of credit conversion factors (CCF). EAD is hence seen in this report as an estimation of the maximum extent to which a bank may be exposed to a counterparty in the event of, and at the time of, that counterparty's default.

### **FRTB** *Fundamental Review of the Trading Book*

FRTB is the commonly used denomination of the revised market risk framework. The final version was published by the Basel Committee of Banking Supervision (BCBS) on 14 January 2016. According to BCBS, national supervisors are expected to issue final regulations by January 2019, with banks required to report under the new standards by year-end 2023.

### **FSMA** *Financial Services and Markets Authority*

The FSMA is the successor to the former Banking, Financial and Insurance Commission (CBFA), which on 1 April 2011 changed its name as a consequence of the changes in its mandate, in particular its exclusive competence for the supervision of rules of conduct. The FSMA is responsible for supervising the financial markets and listed companies, authorising and supervising certain categories of financial institutions, overseeing compliance by financial intermediaries with codes of conduct and supervising the marketing of investment products to the general public, as well as for the "social supervision" of supplementary pensions. The Belgian government has also tasked the FSMA with contributing to the financial education of savers and investors.

### **G-SIB** *Globally Systemically Important Banks*

G-SIBs are defined as institutions whose failure would have a significant impact on the financial system or the real economy. The Financial Stability Board in consultation with the Basel Committee on Banking Supervision and national authorities reviews each year the list of G-SIBs based on a common methodology that takes into consideration a.o. the size, complexity and interconnectedness of those institutions. G-SIBs are subject to higher capital buffer requirements, Total Loss-Absorbing Capacity (TLAC) requirements and higher supervisory expectations in terms of risk management and governance, risk data aggregation capabilities and resolvability.

### **HVaR** *Historical VaR*

HVaR corresponds to the VaR measurement based on the historical market conditions for the Bank, putting them in order from worst to best. It then assumes that history will repeat itself, from a risk perspective.

### **ICAAP** *Internal Capital Adequacy Assessment Process*

The ICAAP file describes how a bank monitors and assesses the adequacy of its minimum capital level regarding the risk it is taking. The file is accompanied by a series of appendices that describe in details the various Ecap models and stress tests methodologies, the complete Risk Appetite policy, Ecap and stress tests policies, Risk Cartography (RICAP) procedure and the Recovery and Resolution Plan (RRP).

### **ISDA** *International Swap and Derivative Association*

Trade organisation of participants in the market for over-the-counter derivatives. Its headquarters are in New York, and it has created a standardised contract (the ISDA Master Agreement) to enter into derivatives transactions.

### **LCR** *Liquidity Coverage Ratio*

The Liquidity Coverage Ratio forces financial institutions to maintain a sufficient stock of quality liquid assets to withstand a crisis that puts their cash flows under pressure. The assets to hold must be equal to or higher than their net cash outflow over a 30-day period under stress (having at least 100% coverage). The parameters of the stress scenario are defined under Basel III.

### **LGD** *Loss Given Default*

The ratio of the loss on an exposure due to the default of a counterparty to the amount out-standing at default.



**LTV** *Loan To Value*

Ratio between the amount borrowed and the appraised value of a property, used in mortgage underwriting to assess the lending risk.

**LRE** *Leverage Ratio Exposure measurement*

The IFRS balance sheet after netting of derivatives & cash collateral and including the off balance sheet commitments. The leverage ratio is the % of LRE which is covered by the Tier 1 capital.

**MBS** *Mortgage-Backed Securities*

Asset-backed securities or debt obligations representing a claim on the cash flows from mortgage loans.

**MDA** *Maximum Distributable Amount*

The MDA is an amount calculated by the banks in line with article 141 of the CRR. In case banks fall under the MDA, dividend payment, AT1 coupon and variable remuneration will be restricted.

**NBB** *National Bank of Belgium*

The National Bank of Belgium is the current Belgian Financial Institutions regulator. The NBB is in charge of prudential supervision of the less significant institutions and of the insurance sector. However, some tasks are performed in close cooperation with ECB under the Single Supervision Mechanism.

**NBB LAC DT** *Circular NBB Loss Absorbing Capacity of Deferred Taxes Circular*

In Solvency II, the computation of the regulatory capital requirement is based on the loss of economic own funds in case an adverse event would happen. In such an event, the amount of expected taxes to be paid would also be reduced. The LAC DT mechanism enables insurers to reduce the capital requirement by the expected tax decrease.

**Netting amount**

Is the reduction in exposure due to the use of legally enforceable netting agreements, including the effect on potential future exposure in accordance with Article 298 of the CRR.

**NSFR** *Net Stable Funding Ratio*

NSFR is defined as the amount of available stable funding relative to the amount of required stable funding. This ratio should be equal to at least 100% on an on-going basis. "Available stable funding" is defined as the portion of capital and liabilities expected to be reliable over the time horizon considered by the NSFR, which extends to one year. The amount of such stable funding required of a specific institution is a function of the liquidity characteristics and residual maturities of the various assets held by that institution as well as those of its off-balance-sheet (OBS) exposures.

**ORSA** *Own Risk and Solvency Assessment*

ORSA is an internal process undertaken by an insurer or insurance group to assess the adequacy of its risk management and current and prospective solvency positions under normal and severe stress scenarios.

**O-SII** *Other Systematically Important Institutions*

O-SII is the term used in the EU legislation to designate domestically important banks. National authorities (NBB for Belgium) reviews each year the list of O-SIIs in accordance with the methodology specified by the EBA. Belgian O-SIIs are subject to a capital surcharge.

**OTC** *Over-The-Counter*

Over-the-counter (OTC) or off-exchange trading is carried out directly between two parties, negotiating bilaterally and privately without any supervision of an exchange.

**PD** *Probability of Default*

The probability of default of a counterparty over a one-year period.

**PFE** *Potential future exposure*

Potential future exposure (PFE) is the product of the notional amounts or underlying values as applicable by specific percentages set out in Article 274 of the CRR (Gross Add-on).

**RAROC** *Risk Adjusted Return On Capital*

Risk-based profitability measurement framework for analysing risk-adjusted financial performance and providing a consistent view of profitability across businesses.



**RC Replacement cost**

The Replacement cost (RC) is the current exposure value, meaning the larger of zero and the fair value of a transaction or portfolio of transactions within a netting set with a counterparty that would be lost upon the default of the counterparty, assuming no recovery on the value of those transactions in insolvency or liquidation.

**RMBS Residential Mortgage-Backed Securities**

RMBS are securities for which the primary source of payments is a mortgage loan or a pool of mortgage loans secured mostly on residential real property. Investors receive payments of interest and principal that are derived from payments received on the underlying mortgage loans.

**REA Risk Exposure Amount & RWA Risk-weighted assets**

Risk exposure amount (REA) is the total risk exposure calculated as the sum of risk-weighted exposures for credit risk, market risk, counterparty risk and operational risk. The term Risk Weighted Assets (RWA) is still commonly used and refers to the same as well as Total Risk Exposure amount which is the term used by the SRB when referring to MREL.

**SARIC/RCSA Self-Assessment of Risks and Internal Controls/Risks and Controls Self-Assessment**

Process through which the likelihood and potential impact of operational risks and the effectiveness of controls used to circumnavigate them are assessed and examined.

**SFT Securities Financing Transactions**

SFTs are transactions where securities are used to borrow cash (or other higher investment-grade securities), or vice versa – this includes repurchase transactions, securities lending and sell/buy-back transactions.

**SPV Special Purpose Vehicle**

Separate legal entity created specially to handle a venture on behalf of a company. In many cases, the SPV belongs from a legal standpoint to banks or to investors rather than to the company. The IASB has however stipulated that the company should consolidate the SPV if it enjoys the majority of the benefits or if it incurs the residual risks arising from the SPV even if it does not own a single share of the SPV.

**SRB Single Resolution Board**

The SRB has been operational as an independent EU Agency since 1 January 2015. The SRM started its work on developing resolution plans for banks from January 2015 and became fully operational, with a complete set of resolution powers, on 1 January 2016. The SRB is the resolution authority for banks which are considered significant or in relation to which the ECB has decided to exercise directly all of the relevant supervisory powers, and other cross-border groups, where both the parent and at least one subsidiary bank are established in two different participating Member States of the Banking Union.

**SREP Supervisory Review and Evaluation Process**

The key purpose of SREP is to ensure that institutions have adequate arrangements, strategies, processes and mechanisms as well as capital and liquidity to ensure a sound management and coverage of their risks, to which they are or might be exposed, including those revealed by stress testing and risks the institution may pose to the financial system.

**SRM Single Resolution Mechanism**

The Single Resolution Mechanism entered into force on 19 August 2014 and is directly responsible for the resolution of the entities and groups directly supervised by the European Central Bank as well as other cross-border groups.

**SSM Single Supervision Mechanism**

The SSM operates as a system of common bank supervision in the EU that involves national supervisors and the European Central Bank. From 4 November 2014, banks deemed “significant” are supervised directly by the ECB. Smaller banks, called less significant, continue to be directly monitored by their national authorities, though the ECB has the authority to take over direct supervision of any bank.

**SVar Stressed VaR**

SVar corresponds to the VaR measurement based on the worse historical market conditions (stressed period) for the bank.

**TLOF Total Liabilities & Own Funds**

The IFRS balance sheet after netting of derivatives & cash collateral. The amount is used to

- compute the MREL requirement in Bank Recovery & Resolution Directive 1
- compute the MREL subordination requirement in Bank Recovery & Resolution Directive 2 and
- determine the level from which a bank may have access to the Single Resolution Fund.



### **TLTRO(-III)** *Targeted Longer Term Refinancing Operations*

One of the ECB's unconventional monetary policy instruments. They provide long-term loans to banks and thereby encourage them to increase their lending activity for the benefit of businesses and consumers in the euro area.

### **TRIM** *Targeted Review of Internal Models*

Large scale project conducted by the ECB over 2016-2020 aiming at reducing inconsistencies and unwarranted variability when banks use internal models to calculate the risk weighted assets.

### **UCITS** *Undertakings for Collective Investment in Transferable Securities*

Set of European Union directives that aim to allow collective investment schemes to operate freely throughout the EU on the basis of a single authorisation from one member state. In practice many EU member nations have imposed additional regulatory requirements that have impeded free operation with the effect of protecting local asset managers.

### **VaR** *Value at Risk*

VaR represents an investor's maximum potential loss on the value of an asset or a portfolio of financial assets and liabilities, based on the investment timeframe and a confidence interval. This potential loss is calculated on the basis of historical data or deduced from normal statistical laws.

## List of ESG-related acronyms

<b>BACA:</b>	Belgian Alliance for climate Action
<b>CPRS:</b>	Climate Policy Relevant Sectors
<b>ESG:</b>	environmental, social and governance
<b>EPC:</b>	energy performance certificate
<b>GHG:</b>	greenhouse gas
<b>NGFS:</b>	Network for Greening the Financial System
<b>PACTA:</b>	Paris Agreement Capital Transition Assessment
<b>PCAF:</b>	Partnership for Carbon Accounting Financials
<b>SBTi:</b>	Science-based targets initiative
<b>SFDR:</b>	Sustainable Finance Disclosure Regulation
<b>TAP:</b>	Transition Acceleration Policy
<b>TCFD:</b>	Taskforce on Climate-related Financial Disclosures
<b>UNEP FI:</b>	United Nations Environment Programme Finance Initiative