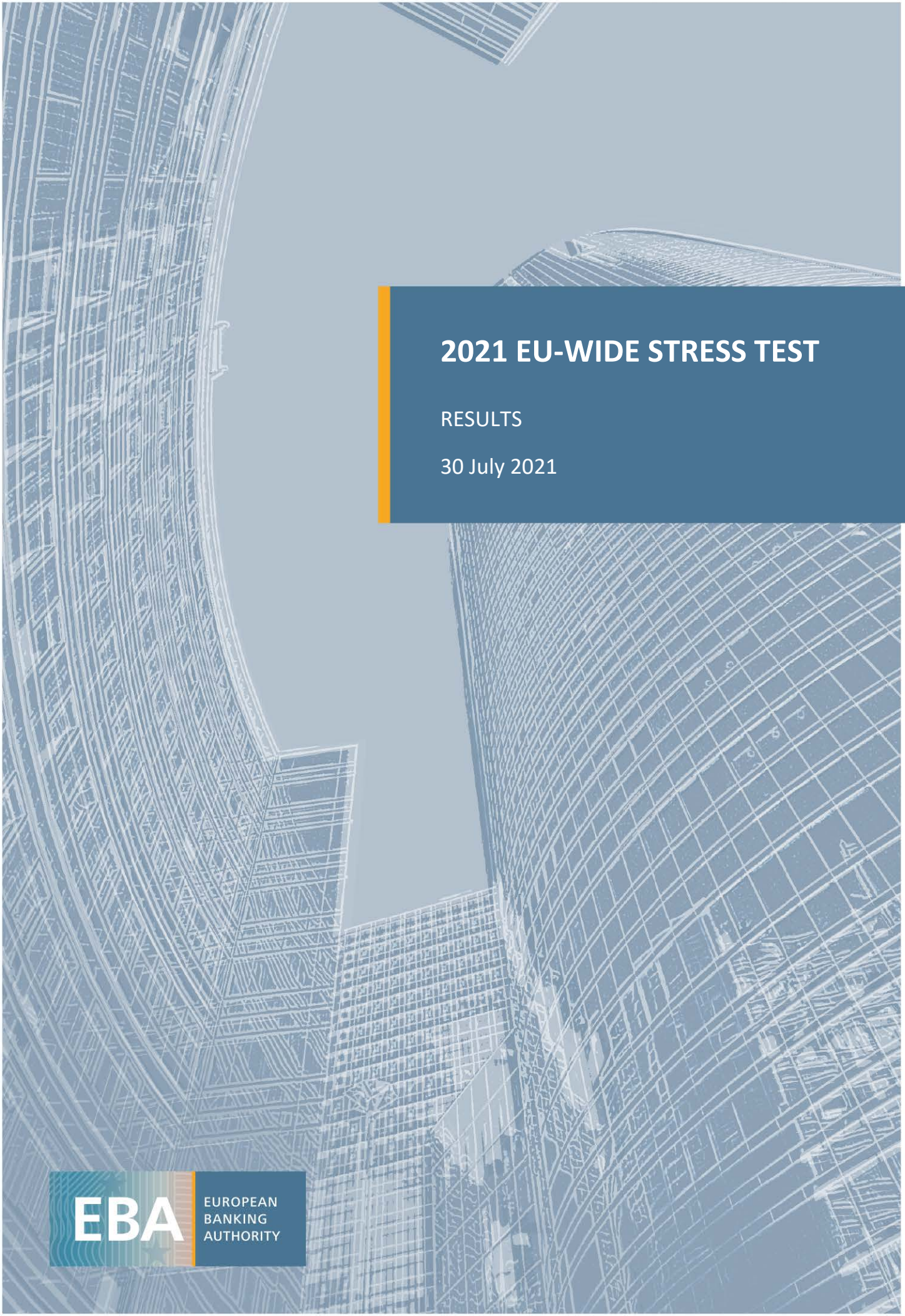


2021 EU-WIDE STRESS TEST

RESULTS

30 July 2021

EBA EUROPEAN BANKING AUTHORITY

Contents

List of figures, tables and boxes

Abbreviations

AVA	Additional Valuation Adjustment
bn	Billion
bps	Basis points
CAs	Competent authorities
CCR	Counterparty credit risk
CET1	Common equity tier 1
CRD	Capital requirements directive
CRR	Capital requirements regulation
CVA	Credit valuation adjustment
ECB	European Central Bank
ECL	Expected credit losses
EA	Euro Area
EEA	European Economic Area
EIR	Effective interest rate
ESRB	European Systemic Risk Board
EU	European Union
FVPL	Fair value through profit and loss
FVOCI	Fair value through other comprehensive income
FX	Foreign Exchange
GDP	Gross domestic product
HfT	Held with a trading intent
IFRS 9	International Financial Reporting Standard 9— Financial Instruments
IRB	Internal ratings-based approach
L2	Level 2
L3	Level 3
LGD	Loss Given Default
MDA	Maximum distributable amount

N/A	Not applicable
NFCI	Net fees and commissions income
NII	Net interest income
NPEs	Non-performing exposures
NPLs	Non-performing loans
NTI	Net trading income
OCI	Other comprehensive income
OCR	Overall Capital Requirement
P2R	Pillar 2 Requirement
PD	Probability of default
PGS	Public Guarantee Scheme
P&L	Profit and loss
pp	Percentage points
REA	Risk exposure amount
SREP	Supervisory review and evaluation process
SSM	Single Supervisory Mechanism
STA	Standardised approach
TSCR	Total SREP Capital Requirement

Disclaimer

This report is provided for analytical and transparency purposes only. The only official results are those stated in the original PDF files published by the European Banking Authority (EBA), which were submitted and confirmed by the competent authorities. The cut-off date for the data shown in this report is 22 July 2021 – 09:00 CET.

1. Executive Summary

The EU-wide stress test exercise provides supervisors, banks and other market participants with a common analytical framework to consistently compare and assess the resilience of EU banks to adverse market developments and shocks. The current exercise was initially planned for 2020 and launched in January 2020; however, due the COVID-19 outbreak and its global spread since February, in March 2020 the EBA decided to postpone the EU-wide stress test to 2021 to allow banks to prioritise operational continuity[1]. The exercise is designed to inform the Supervisory Review and Evaluation Process (SREP) carried out by Competent Authorities (CAs) and allows to test the resilience of the EU banking sector amid COVID-19. The EU-wide stress test is a constrained bottom-up exercise based on a common methodology and relevant scenarios, and a set of templates that capture starting point data and stress test results.

The common macroeconomic baseline and adverse scenarios used in the exercise cover a three-year horizon taking the end-2020 data as the starting point. Scenario variables include the evolution of real gross domestic product (GDP), inflation, unemployment rates, real estate prices, stock prices, exchange rates and interest rates. The baseline scenario for EU countries is based on the December 2020 projections from the national central banks and envisages that the GDP in the EU will increase in the three-year horizon (3.9%, 4.2% and 2.3% as of 2021, 2022 and 2023 respectively). The adverse scenario sets out paths for key economic and financial variables in a hypothetical adverse situation triggered by the materialisation of risks to which the EU banking system is exposed. This adverse macro-financial scenario was designed by the Task Force on Stress Testing of the European Systemic Risk Board (ESRB) in close collaboration with the European Central Bank (ECB) and draws upon a prolonged COVID-19 scenario in a “lower for longer” interest rate environment. The adverse scenario envisages that real GDP in the EU will further decline (-1.5%, -1.9% and –0.2% as of 2021, 2022 and 2023 respectively) with a cumulative deviation of real GDP growth from its baseline level of -12.9% (-8.3% in the 2018 stress test exercise). Such decrease in real GDP following the unprecedented decline in 2020 reflects a very severe scenario.

The scenario is hypothetical and not designed to capture every possible confluence of events. However, it can help provide an understanding of the impact on the EU banking system if a severe economic downturn materialises. Since the common EU scenario may have different effects in different countries, banks’ results should be read in conjunction with the relevant scenario.

One of the main features of the 2021 exercise is the collection of data on the support measures deployed in response to the COVID-19 pandemic, along with the implementation of specific

[1] In 2020, following the postponement of the EU-wide stress test exercise, the EBA has released two Transparency exercises, one in late Spring and one in late Autumn, to inform the public on the conditions of the EU banking sector at the start of the COVID-19 crisis and the impact of the crisis in the first half of 2020, without any additional reporting burden for banks. In addition, in May 2020 the EBA published a Thematic Note (EBA Rep/2020/17) analysing the preliminary effects of COVID-19 pandemic on the EU banking sector, including a sensitivity analysis on parts of banks’ credit and market risk portfolios.

methodological choices on these measures (e.g. the assumption of expiration of EBA-compliant moratoria at the end of 2020).

The current exercise includes a sample of 50 banks, covering 70% of total banking assets across 15 countries of the European Union (EU) and European Economic Area (EEA) at the highest level of consolidation[2]. Granular data on a bank-by-bank level are disclosed to contribute to market discipline and serves as a benchmarking tool. Despite the unprecedented shock of 2020, the starting point of the 2021 EU-wide stress test, in terms of the CET1 capital ratio (15.3%, transitional), is notably above the value reported at the beginning of the previous exercise (14.4%, transitional restated)[3]; this data reflects a continuous and significant strengthening of the capital position by EU banks. At the end of the stress test horizon, the transitional CET1 capital ratio drops to a level of 10.3%, with a depletion of 497 bps, higher than in 2018 (410 bps)[4] and consistent with the increased severity of the adverse scenario. On a fully loaded basis, the starting point CET1 capital ratio is 15.0% and the capital depletion is 485 bps (10.2% CET1 capital ratio on a fully loaded basis at the end of 2023). The dispersion in the capital depletion is higher compared to the previous stress test, ranging from a minimum decrease of 80 bps transitional (80 bps fully loaded) to a maximum decrease of 1179 bps (996 bps fully loaded)[5].

For the 38 banks under the ECB-SSM banking supervision, the CET1 capital ratio at the starting point is 15.0% transitional (14.7% fully loaded) and reaches a level of 9.9% (9.7% fully loaded) at the end of 2023.

The aggregate leverage ratio decreases from 5.7% to 4.4% on a transitional basis, and from 5.6% to 4.3% on a fully loaded basis.

Table 1: Summary of the key metrics and results of the exercise

Metric	Starting 2020	Adverse 2023	Delta adverse 2023 - 2020
Transitional CET1 capital ratio	15.3%	10.3%	-497 bps
Fully loaded CET1 capital ratio	15.0%	10.2%	-485 bps
Transitional leverage ratio	5.7%	4.4%	-130 bps
Fully loaded leverage ratio	5.6%	4.3%	-124 bps

[2] Figures in the report are rounded to the nearest basis point or to the nearest unit. Due to rounding effect, the sum of some data does not necessarily add up to the total.

[3] The CET1 capital ratio at the starting point is higher in current exercise than in 2018 EU-wide stress test. This is still the case if we consider only those banks that are common to the two exercises .

[4] The aggregate impact of the adverse scenario is measured as the difference between the starting CET1 capital ratio and the CET1 capital ratio projected at the end of the stressed period. The comparison of the effects of the stress test with the 2018 exercise is only for information purposes; differences in the sample of banks in the two exercises and in the scenarios may partially explain the differences.

[5] In the 2018 EU-wide stress test capital depletion ranged between 52 bps and 778 bps on a transitional basis (30 bps and 769 bps fully loaded).

Metric	Starting 2020	Adverse 2023	Delta adverse 2023 - 2020
Transitional CET1 capital	1,115 bn	843 bn	-273 bn
Transitional total REA	7,284 bn	8,149 bn	866 bn
Fully loaded CET1 capital	1,093 bn	828 bn	-265 bn
Fully loaded total REA	7,279 bn	8,148 bn	868 bn

The stress test impact is mostly driven by credit risk losses of 308bn EUR, which have an impact of -423 bps on the CET1 capital ratio. Market risk losses, including counterparty credit risk (CCR), amount to 74bn EUR, and operational risk losses to 49bn EUR, driving an impact on capital of -102 bps[6] and -68 bps respectively. While net interest income (NII) and net fees and commissions income (NFCI) remain positive, the cumulative decrease of these two sources of income as of end-2023 leads to a lower capital formation of 176 bps and 73 bps, compared to the hypothetical contribution of constant starting point values. [7] Distribution restrictions, following the breach of the trigger of the combined buffer requirement in any of the three years of the scenario, have been applied by 22 banks. Following the maximum distributable amount (MDA) adjustments, these banks decrease their distributions by 18.8bn EUR, with a positive impact on capital of 26 bps.

At the end of the stress test horizon, under the baseline scenario, all banks have a CET1 capital ratio in excess to the overall capital requirement (OCR) (with reference to the portion to be held with CET1), with a median excess capital of 704 bps; 90% of the sample (45 banks) has an excess capital above 391 bps. Under the adverse scenario, in 2023 the median excess capital is 528 bps with respect to the relevant total SREP capital requirement (TSCR); 90% of the banks of the sample is above 219 bps; and two banks are below the TSCR[8]. As part of the SREP, supervisors will consider the impact of the stress test, together with the managerial decisions and capital actions, to assess banks' capital position and decide on the potential need to set a Pillar 2 capital guidance.

This report provides an overview of the key aggregate results and a description of the main drivers of the capital impact. Annex I includes a bank-by-bank summary of the results. The methodology and scenarios were published in January 2021 and can be consulted separately on the EBA website.[9]

[6] According to the methodology, market risk losses are fully recognised in the first year of the stress test horizon (i.e. in 2021). In addition, the market risk methodology allows for income recovery generated by client revenues in the 3 years of the adverse scenario (see section 4.1.3 of the report). Without the positive contribution of client revenues, which mitigates the impact of the losses registered in the first year, the market risk impact would be 163 bps.

[7] Keeping the unstressed starting point values constant over the three-year horizon of the stress test.

[8] If total capital is considered, under the baseline scenario, in 2023 the median excess capital with respect to OCR is 675 bps; 90% of the sample (45 banks) has an excess capital above 351 bps; one bank is below OCR. Under the adverse scenario, in 2023 the median excess capital is 473 bps with respect to TSCR; 90% of the banks of the sample is above 119 bps; and two banks are below the TSCR.

[9] https://www.eba.europa.eu/eba-launches-2021-eu-wide-stress-test-exercise

2. Key aspects of the 2021 EU-wide stress test

2.1 General aspects

The EU wide stress test is a solvency stress test conducted at the highest level of consolidation to assess banks' resilience to a common adverse macroeconomic scenario and its impact on their capital position, over a three-year horizon. It has been conducted on a sample of 50 banks from 15 EU and EEA countries, including 38 banks from euro area countries and 12 banks from Denmark, Hungary, Norway, Poland and Sweden. The exercise is not designed as a pass-fail test but as a supervisory tool and an input for the Pillar 2 assessment of banks.

The EBA stress test exercise involves different institutions. The EBA initiates and coordinates the exercise and defines the common methodology and templates for the collection and dissemination of data. The baseline macro-financial scenario for EU countries is based on the December 2020 projections from the national central banks. The adverse scenario sets out paths for key economic and financial variables in a hypothetical adverse situation triggered by the materialisation of risks to which the EU banking system is exposed. The adverse macro-financial scenario is designed by the ESRB's Task Force on Stress Testing in close collaboration with the ECB. Competent authorities and – for the Single Supervisory Mechanism (SSM) – the ECB in collaboration with national CAs are responsible for quality assuring the data provided by banks and their projections. Once the exercise is completed, the EBA is responsible for communicating the results at bank-specific and aggregate level.

The methodology has remained broadly similar to the one envisaged for the postponed 2020 stress test exercise. However, the support measures deployed in response to the COVID-19 pandemic have required some refinements to the treatment of COVID-19 EBA-compliant moratoria and COVID-19 public sector guarantees (see box 1). Furthermore, the 2021 methodology reflects the amendments to the capital requirements regulation that were published in June 2020 (the 'CRR Quick Fix'). Differently from 2020, for some major P&L items (i.e. administrative expenses and net fees and commissions income) specific changes have been introduced to recognise FX variations, to reduce the asymmetry in the FX treatment that was previously embedded in the methodology[10]. The EU-wide stress test is a constrained bottom-up exercise. Hence, banks provide the data and apply their own models to project the results, under the assumption of a static balance sheet[11]. However, banks are required to adjust their results based on the definitions, constraints, caps and floors defined in the methodology. This is necessary to ensure a minimum degree of conservatism,

[10] In the 2020 methodology, net interest income was already subject to FX variations.

[11] The static balance sheet assumption requires that assets and liabilities that mature within the time horizon of the exercise are replaced with similar financial instruments as at the start of the exercise; no capital measures or managerial decisions completed after 31 December 2020 are considered.

consistency and comparability of the projections as well as a level playing field. In addition, CAs carry out an extensive quality assurance process for ensuring the reliability and robustness of the results.

Dissemination of data is also part of the stress test exercise. The exercise fosters market discipline through the publication of extensive and detailed bank-by-bank actual and projected data, which is crucial particularly at times of increased uncertainty. In line with what was planned for the postponed 2020 exercise, in the 2021 EU-wide stress test the transparency templates provide information on Pillar 2 Requirements (P2R) for each bank at the starting point.

The adverse macroeconomic scenario, on which the exercise is based, assumes a general adverse macroeconomic downturn over a three-year horizon which draws upon a prolonged COVID-19 state in a "lower for longer" interest rate environment. The scenario is hypothetical and not designed to capture every possible confluence of events. However, it can help provide an understanding of the impact on the EU banking system if a severe economic downturn materialises, regardless of the specific triggering shock.

The results of the exercise are an input to the SREP. Supervisors should consider the individual results, together with managerial decisions and capital actions put forward by banks that may mitigate the impact of the stress, to understand their resilience and capital position and assess the potential need to set a Pillar 2 capital guidance. Supervisors may also consider the impact of the static balance sheet assumption – as well as other methodological aspects – in evaluating the results of the stress test during the SREP.

2.2 COVID-19 support measures in the 2021 EU-wide stress test

The COVID-19 pandemic originated an unprecedented shock to the EU economies. In response to the challenges posed by the pandemic, public authorities adopted extraordinary fiscal and monetary policies to support the real economy and ensure that the banking sector could keep financing households and corporates. In several countries, moratoria on payments were granted by banks to borrowers; in addition, public guarantees schemes (PGS) were introduced, especially to secure the flow of credit to the non-financial sector. Furthermore, regulators and supervisors adopted relief measures to mitigate the impact of the pandemic. The EBA, in order to alleviate the operational burden for banks derived from the COVID-19 outbreak, postponed its 2020 EU-wide stress test, provided some leeway to banks concerning the submission of supervisory reporting data and took several other actions.[12] Among these actions, the EBA published the Guidelines on legislative and non-legislative moratoria on loan repayments (EBA/GL/2020/02, amended in June and December 2020)[13], which clarified that generalised payment delays due to public or industry-

[12] For a list of actions taken by the EBA, see https://www.eba.europa.eu/coronavirus. For a more comprehensive review of the measures adopted to counter the effects of COVID-19 pandemic, see also the Risk Assessment Report published by the EBA in December 2020. For the first evidence on the use of moratoria and public guarantees in the EU banking sector, see the Thematic Note (EBA Rep/2020/31)

[13] The Guidelines have been published at the following link: Guidelines on legislative and non-legislative moratoria on loan repayments applied in the light of the COVID-19 crisis | European Banking Authority (europa.eu).

wide moratoria ("EBA-compliant moratoria") do not lead to an automatic classification of exposures as defaulted, forborne or unlikely to pay. Box 1 describes how COVID-19 relief measures are considered in the stress test methodology, focusing mainly on moratoria, which can affect loan creditworthiness, classification and provisioning, and PGS, which may significantly reduce banks' risk exposure amount (REA) and expected credit losses for the guaranteed loans.

Box 1: COVID-19 supporting measures in the stress test exercise

The government support measures put in place to mitigate the impact of COVID-19 created significant challenges to stress test models for loan loss projections. The stress test scenario takes into account the existing COVID-19 support measures and the extent to which they mitigate the macroeconomic situation. However, to level the playing field, assumptions are needed for the consideration of these support measures during the projected horizon of the stress test. Therefore, in the stress test scenarios and in line with the "no policy change" convention, these measures are considered not to be prolonged beyond their expiration date.

Two support measures used by several EU countries are explicitly addressed in the stress test methodology: EBA-compliant moratoria and PGS.

EBA-compliant moratoria

Given the short-term nature of EBA-compliant moratoria, these measures should not be considered in the projection to avoid prolonging the mitigating effect throughout the stress test horizon. According to this methodological option, banks are asked to assume that, for the purpose of calculating impairments and REA during the stress test horizon, all EBA-compliant moratoria are no longer in place from 1 January 2021 onwards. Based on this assumption, for the starting point of the exercise, banks have reassessed the distribution of exposures across IFRS 9 stages. Since the values of the starting point parameters (e.g. probability of default) shall be suitable for the projection, these parameters need to be adjusted by banks to remove the effect of moratoria too.

Public guarantee schemes

Public guarantees put in place to mitigate the impact of COVID-19 have typically a longer duration than moratoria. The treatment put forward in the methodology for these guaranteed loans considers that most of them will be in place during the stress test horizon. In line with the static balance sheet assumption, banks are asked to replace guaranteed loans that mature during the stress test horizon by similar loans covered by the guarantee.

At the end of 2020, the amount of exposures that have been subject to EBA-compliant moratoria (henceforth 'moratoria') accounted for 4.2% of total exposures of the banks in the sample, of which 1.4% was not expired. Positions classified in stage 2 at the end of 2020 were about 24% of exposures under moratoria. Given that PGS were granted mainly to newly originated loans, the percentage of exposures under the PGS is much lower in aggregate (1.6% of total exposures). In line with the goal

of this relief measure to secure credit flow to the non-financial sector, a great part of the exposures under PGS is related to corporates.

Table 2: Exposures under moratoria and under PGS: descriptive statistics (year 2020, actual data, % of exposures)[14]

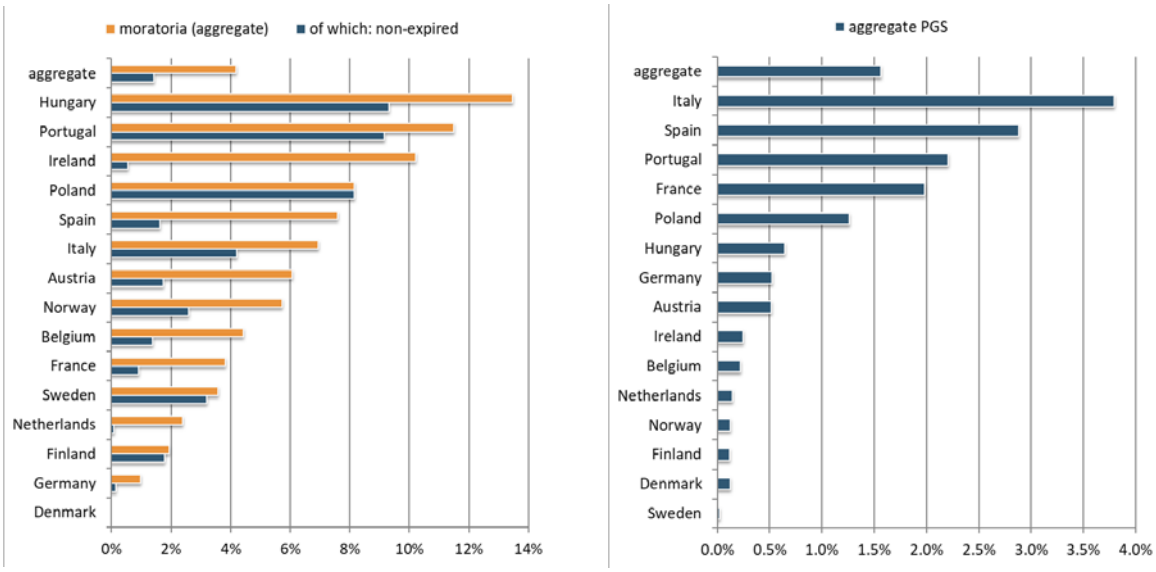
Metric	2020
Exposures under moratoria (% of total exposures)	**4.2%**
of which expired	*2.8%*
of which non-expired	*1.4%*
Breakdown of exposures under moratoria	
of which expired	*65.9%*
of which non-expired	*34.1%*
of which retail	*58.5%*
of which corporates	*31.4%*
of which Stage 2	*24.3%*
of which Stage 3	*3.1%*
Newly originated loans and advances subject to COVID-19 PGS (% of total exposures)	**1.6%**
Breakdown of exposures under PGS	
of which retail	*31.8%*
of which corporates	*65.6%*
of which Stage 2	*12.1%*
of which Stage 3	*1.1%*

The following charts show the dispersion, per country, of the incidence of exposures under moratoria or PGS. Most of the countries with exposures under moratoria above the median have a greater portion of exposures under moratoria classified as stage 3. Conversely, most of the countries with PGS above the median have a lower portion of exposures under PGS classified as stage 3[15].

[14] Data refers to staging as of 31 December 2020. Restatements related to the assumed expiration of moratoria (see Box 1) are reported in section 4.1.2. When not differently stated, data refers to the sum of expired and non-expired moratoria to give a comprehensive picture of the impact of EBA-compliant moratoria. Non-expired moratoria refer to EBA-compliant moratoria which had not expired on 31 December 2020 but for which banks had to assume such expiration for the stress test. Exposures under moratoria (or under PGS) as a percentage of total exposures are the portion of total exposures to which moratoria (or a PGS) measures have been granted. The "breakdown" sections of the table report a breakdown of the total exposures under moratoria (or PGS). The definition of asset classes (e.g. retail exposures) is in line with COREP definition.

[15] The median is computed on the distribution of the ratio of exposures under moratoria (or PGS) on total exposures.

Figure 1: Exposures under moratoria (in aggregate and non -expired) (1) and under PGS (2): (year 2020, % of total exposures, per country of the bank, sorted by % on total exposures)[16]



Banks with higher exposure towards sectors highly affected by the pandemic[17] show a higher portion of exposures under moratoria.

Table 3: Exposures under moratoria and under PGS: analysis per cluster (year 2020, % of exposures per cluster)[18]

Metric	2020
Exposures under moratoria	
banks with high exposures towards the most affected sectors	*7.1%*
other banks in terms of "most affected sectors"	*3.5%*
Newly originated loans and advances subject to COVID-19 PGS – Exposures	
banks with high exposures towards the most affected sectors	*2.6%*
other banks in terms of "most affected sectors"	*1.3%*

[16] The chart on the left-hand side reports the exposures under moratoria (total and "of which: non-expired"), for every country, as a ratio of total exposures of the specific country. The chart on the right-hand side reports exposures under PGS, for every country, as a ratio of total exposures of the specific country.

[17] The list of the most affected sectors is based on the EBA report on the "First evidence on the use of moratoria and public guarantees in the EU banking sector" (thematic note EBA/Rep/2020/31) published in November 2020 and updated on the basis of the World economic outlook of the IMF (April 2021); the list takes into account also the sectors most severely affected by the containment measures mentioned in the scenario designed for the stress test (e.g. travel, air transport, accommodation services, food, and film and media). The final list includes accommodation and food services; arts, entertainment, and other service activities; wholesale and retail trade; and transportation. "Most exposed" banks are banks belonging to the fourth quartile of the distribution of the following indicator: total exposures towards most affected sectors on total exposures. The exposure of each bank to affected sectors was based on the data by NACE sector available in FINREP, with reference date 31 December 2020. Data was available for 49 banks of the sample (out of 50).

[18] Total exposures and exposures under moratoria or PGS include also households. In line with the methodology, exposures are broken down between the stress test asset classes of corporates and retail (including retail SME).

3. Impact of the stress test on capital ratios

3.1 Impact on CET1 capital ratios

The banks included in the 2021 stress test sample reported a 15.3% weighted average transitional CET1 capital ratio as of December 2020. The aggregate capital ratio at the starting point is above the aggregate ratio reported by banks at the beginning of previous EU-wide stress test exercises, an evolution that reflects a continuous and significant strengthening of the capital position by the major EU banks.

Over the stress test horizon, in the adverse scenario the weighted average CET1 capital ratio moves from 15.3% transitional (15.0% fully loaded) as of end of 2020, to 10.3% (10.2% fully loaded) at the end of 2023. Therefore, under the adverse scenario the aggregate transitional CET1 capital ratio decreases by 497 bps over the three-year period of the exercise (485 bps on a fully loaded basis) (see Figure 2 and Figure 3). As a deviation to the baseline scenario, the CET1 capital ratio in the adverse scenario is 548 bps lower than in the baseline scenario (563 bps lower for fully loaded).

Figure 2: Evolution of transitional CET1 capital ratio (%) (1) and change from 2020 (bps) (2)

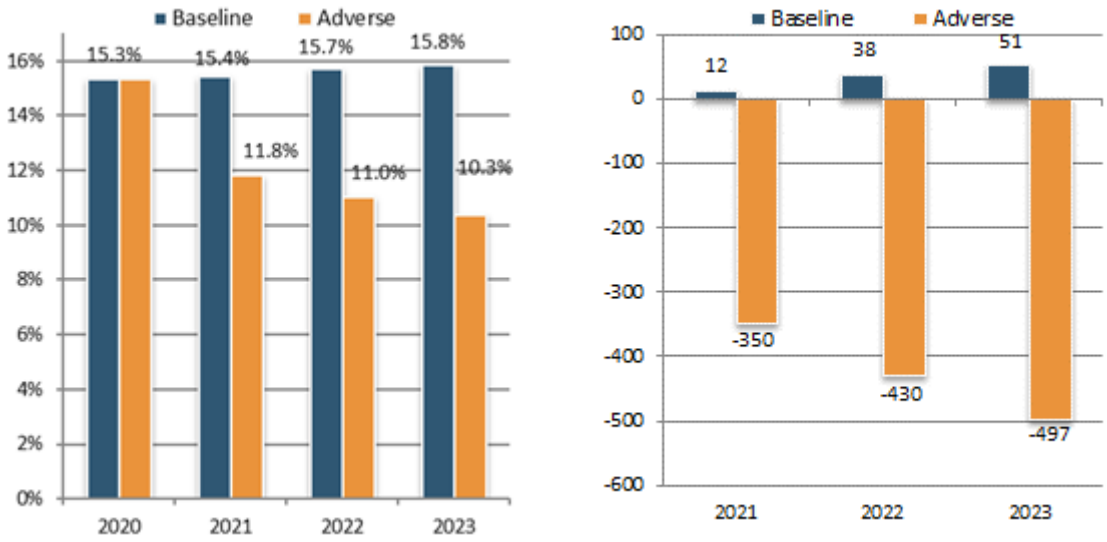
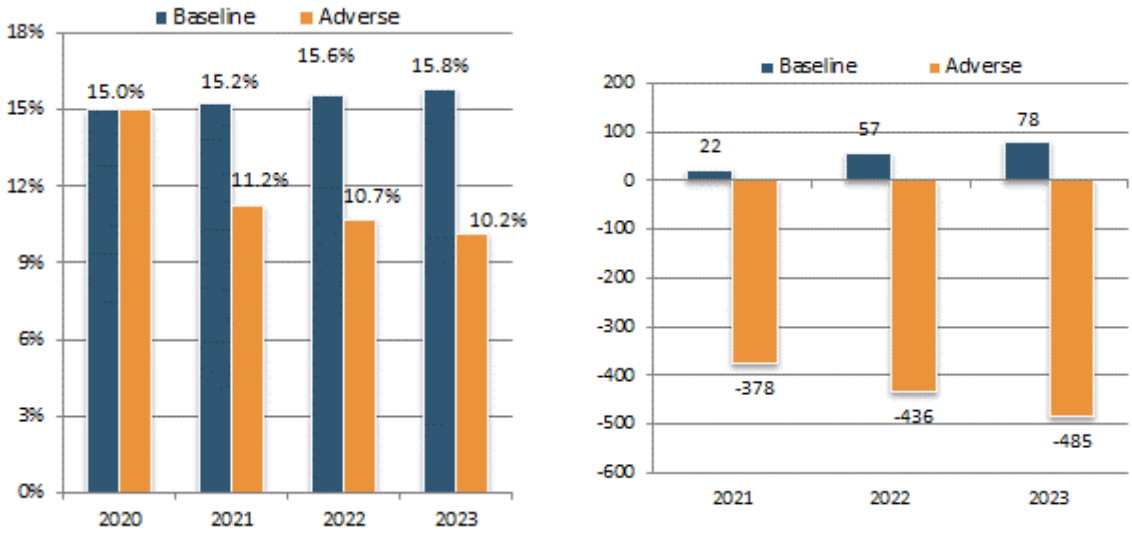


Figure 3: Evolution of fully loaded CET1 capital ratio (%) (1) and change from 2020 (bps) (2)



The breakdown of the aggregate results by clusters of banks shows that capital depletion is lower for banks with high NII[19] and for banks less concentrated on domestic markets[20] (see Figure 4). The analysis based on a dimensional factor shows no relevant difference between capital depletion of largest banks (fourth quartile in terms of total assets) and other banks.

[19] Banks included in the fourth quartile of the distribution of the indicator NII on total assets, as of 31 December 2020.

[20] The subsample of banks concentrated on domestic markets includes banks belonging to the fourth quartile of the distribution of the following indicator: exposures granted to borrowers located in the same country of the bank on total exposures, as of 31 December 2020.

Figure 4: Impact on CET1 capital ratio (depletion) from 2020 to 2023 under the adverse scenario by cluster of banks (bps)

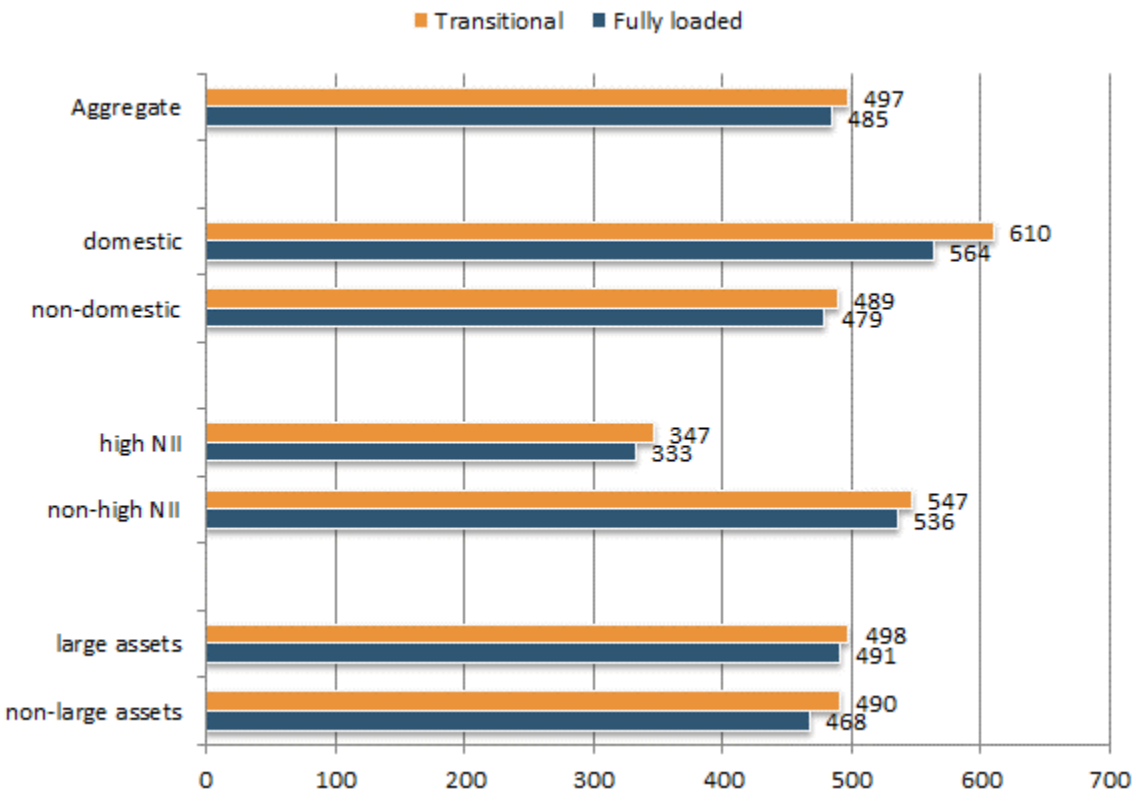
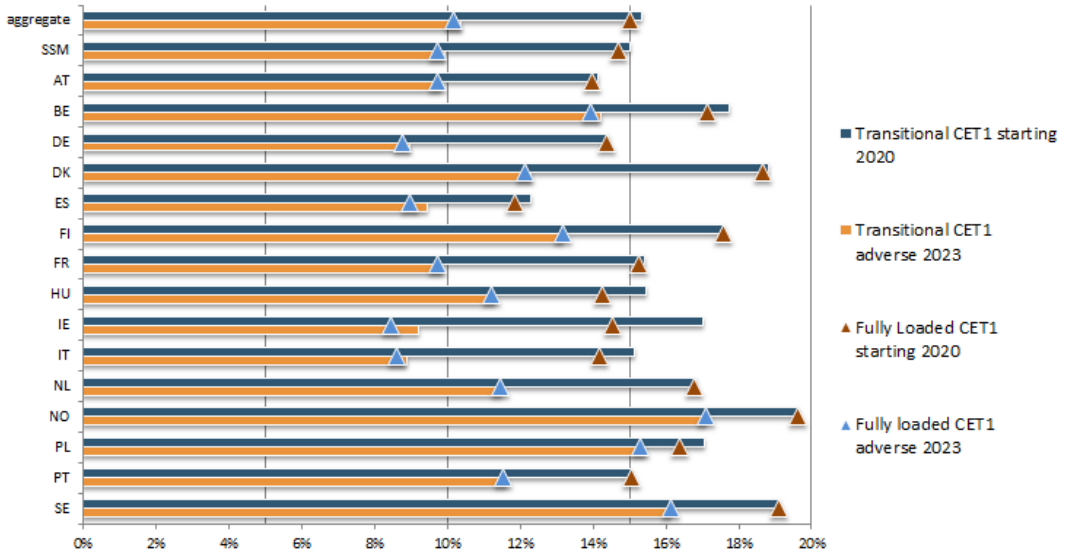


Figure 5 compares the aggregate CET1 capital ratio as of end-2023 to the 2020 starting point (both on transitional and fully loaded basis), by jurisdiction.

Figure 5: Comparison of aggregate transitional and fully loaded CET1 capital ratio by jurisdiction in alphabetical order (%)



A bank-specific analysis is reported in Figure 6, based on actual data as of 2020 and projections under the adverse scenario as of end 2023[21]. Annex I includes the transitional and fully loaded CET1 capital ratios projected by banks for each year of the adverse scenario. At the starting point, all banks report minimum transitional levels of capital above Pillar 1 capital requirements, with a CET1 capital ratio above 4.5%, a Tier 1 capital ratio above 6% and total capital above 8%. At the end of the stress test horizon, under the baseline scenario, all banks have a CET1 capital ratio in excess to the relevant part of OCR[22], with a median excess capital of 704 bps; 90% of the sample (45 banks) has an excess capital above 391 bps. Under the adverse scenario, in 2023 the median excess capital is 528 bps with respect to the relevant TSCR[23]; 90% of the banks of the sample is above 219 bps; two banks are below the TSCR.[24]

[21] When comparing the bank-by-bank fully loaded and transitional results, the impact with and without transitional arrangements differs across banks. Some banks report a lower fully loaded impact generally due to the phase-in by the end of 2023 of CRR transitional adjustments that were in force at the beginning of the exercise.

[22] In accordance with the EBA SREP Guidelines currently in force and the consultation paper (Draft Guidelines), when determining the size of P2G, competent authorities should ensure that it is set at a level appropriate to cover at least the anticipated maximum stress impact, which should be calculated based on the changes in the common equity tier 1 (CET1) ratio. Furthermore, competent authorities should assess as appropriate the quantitative outcomes of stress tests with regard to the adequacy and quality of the institution's own funds and determine whether the quantity and quality of own funds are sufficient to cover applicable capital requirements, and in particular: (a) OCR including its combined buffer requirements under the baseline scenario over a forward looking time horizon of at least two years; (b) TSCR under the adverse scenarios over a forward looking time horizon of at least two years.

[23] OCR and TSCR levels for years included in the stress test horizon are the ones in force as of end 2020. All comparisons are made with reference to the portion of OCR and TSCR to be held with CET1. For total capital, see footnote 8.

[24] In line with paragraph 11 of the EBA methodological note, banks included in the exercise that are under or near the completion of a restructuring have been subject to the same methodology, including the static balance sheet assumption, as other banks in the sample. This in turn limits the extent to which restructuring measures can be reflected in the result, e.g. regarding expected future restructuring benefits.

Figure 6: CET1 capital ratio by bank in alphabetical order at the starting point and as of end-2023 under the adverse scenario (%)

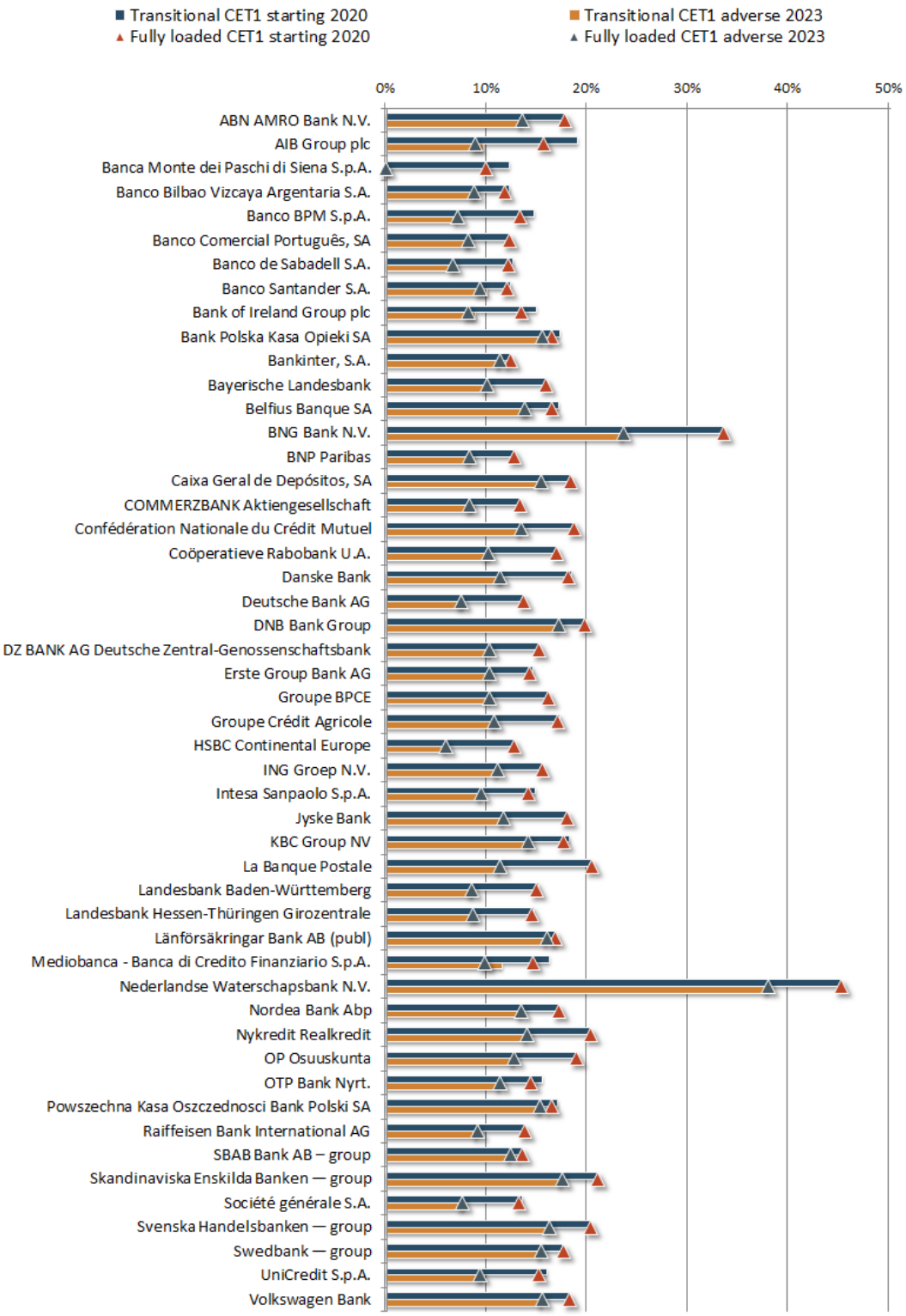
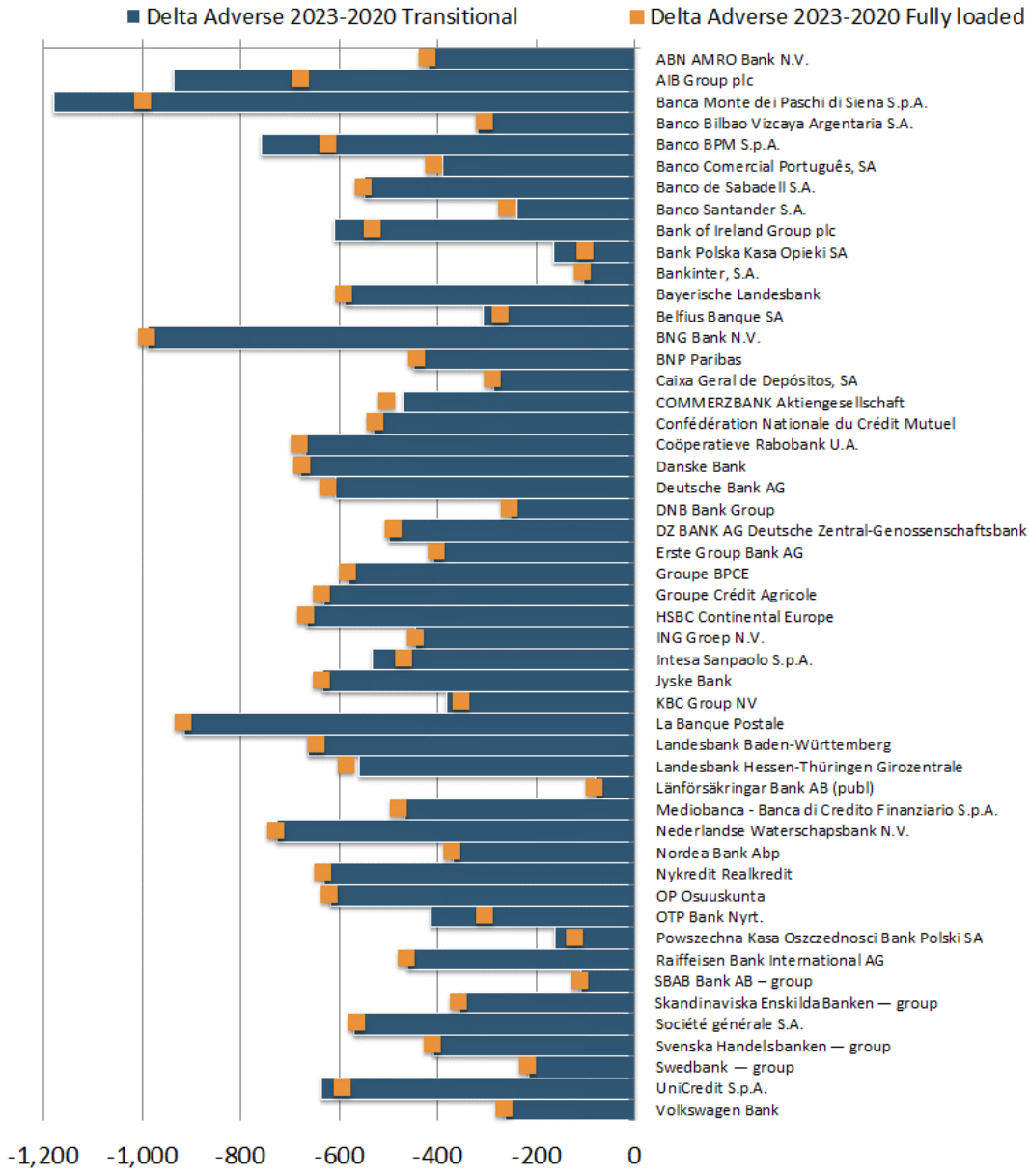


Figure 7 represents the bank-specific impact of the adverse scenario on their capital ratio. In particular, banks project a negative impact that ranges, on a transitional basis, from 80 bps to 1179 bps (80 bps to 996 bps on a fully loaded basis).

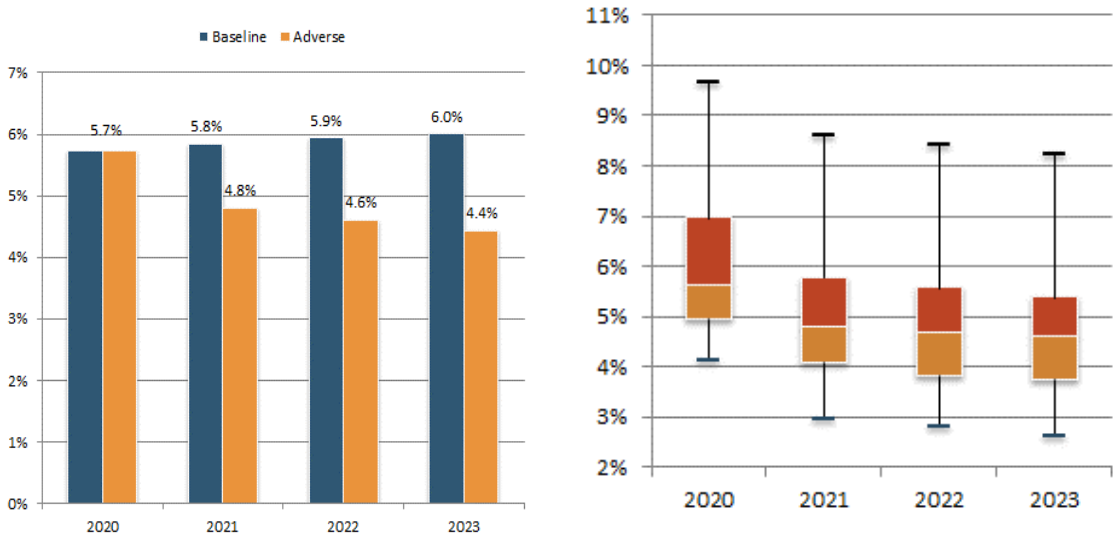
Figure 7: Impact on CET1 capital ratio from 2020 to 2023 under the adverse scenario by bank, in alphabetical order (bps)



3.2 Impact on leverage ratio

The weighted average leverage ratio drops by 130 bps (124 bps fully loaded), from 5.7% (5.6% fully loaded) in 2020 to 4.4% (4.3% fully loaded) in 2023 under the adverse scenario (see Figure 8). The drop is solely explained by the decrease in Tier 1 capital as the leverage exposure (i.e. the denominator of the ratio) remains constant according to the methodological static balance sheet assumption. Figure 8 includes the evolution of the transitional leverage ratio over the adverse time horizon on an aggregate level for the entire sample, and the dispersion across banks. Under the adverse scenario, four banks report a ratio below 3% for every year of the stress test horizon .

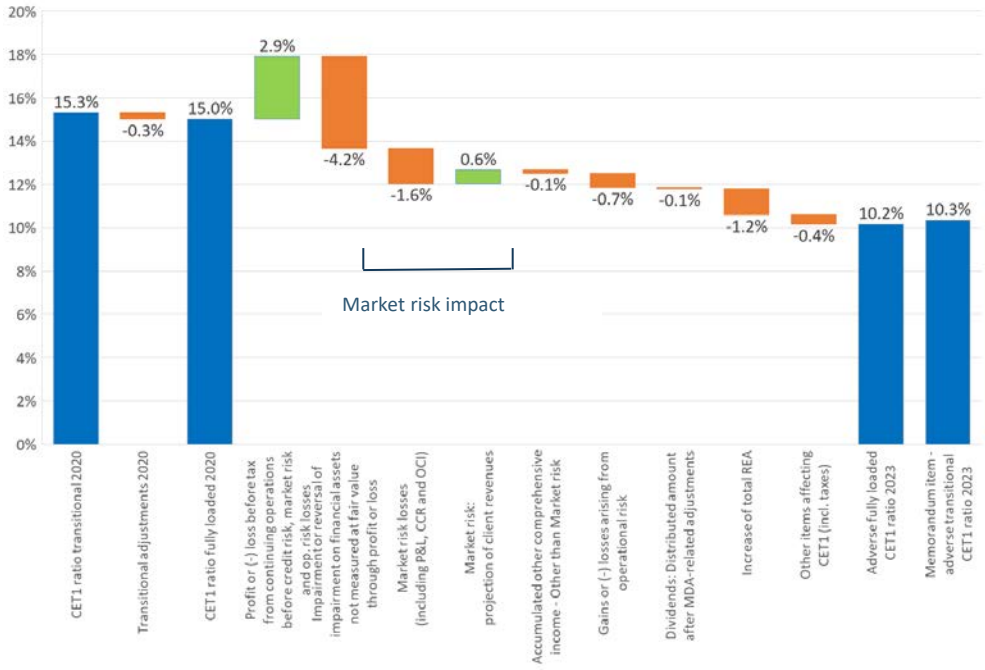
Figure 8: Evolution of transitional aggregate leverage ratio (%) (1) and its dispersion – 5th and 95th percentiles, interquartile range and median in 2020 and in the adverse scenario (%) (2)



4. Main drivers of the impact

Figure 9[25] shows the contribution of different profit and loss (P&L) and balance sheet items to the change in the aggregate CET1 capital ratio between 2020 and 2023 under the adverse scenario. Credit risk losses[26] are the main contributor to the stress impact and detract 423 bps from the CET1 capital ratio as of end-2023. Other relevant direct drivers of banks' capital depletion are market risk and operational risk losses. The impact of market risk on CET1 capital ratio is equal to -102 bps on a 3-year cumulative basis; following the methodology, market risk losses (recognised in the first year of the stress test horizon, i.e. in 2021) lead to an impact of -163 bps, however the positive contribution of client revenues in the three years of the adverse scenario compensates part of the 2021 losses (see section 4.1.3). In addition, operational risk losses drive banks' CET1 capital ratio further down by 68 bps. Banks' capital ratios are impacted not only by the capital depletion, on the numerator side, but also by the increase of the REA, with an aggregate impact of -121 bps on CET1 capital ratio[27].

Figure 9: Contribution of main drivers to the change in CET1 capital ratio from 2020 to 2023 in the adverse scenario (waterfall)



[25] Contributions to the CET1 capital ratio are measured against the aggregate actual total REA as of the 2020. Impacts of single drivers are reported gross of taxes – taxes included in 'other items affecting CET1 (incl. taxes)'. Fair value through other comprehensive income (FVOCI) exposures are subject to the market risk methodology.

[26] Impairment or reversal of impairment on financial assets not measured at fair value through profit or loss.

[27] In comparison with 2018, although the sample of banks and the scenario are different, the contribution of the item "profit or loss before tax from continuing operations before credit risk, market risk and operational risk losses" is lower (in 2018 it was 3.9%). Most of the reduction is related to NII (see section 4.1.1).

As reported in section 3.1 (Figure 4), the breakdown of the aggregate results by clusters of banks shows that capital depletion is lower for banks with high NII[28] and for banks less concentrated on domestic markets[29]. The analysis of the main drivers of capital depletion helps to see that the cluster of banks less concentrated on domestic markets and of banks with high NII have a higher contribution of P&L items (especially NII[30]), that covers the higher credit risk losses (Table 4).

Table 4: Contribution of main drivers to the change in CET1 capital ratio from 2020 to 2023 in the adverse scenario (waterfall) per cluster of banks

Metric	aggregate	geographical concentration of exposures		NII on total assets	
		domestic	non-domestic	high NII	non-high NII
CET1 ratio transitional 2020	**15.3%**	**17.6%**	**15.1%**	**14.0%**	**15.8%**
Transitional adjustments	-0.3%	-0.5%	-0.3%	-0.5%	-0.2%
CET1 ratio fully loaded 2020	**15.0%**	**17.1%**	**14.9%**	**13.5%**	**15.5%**
Profit or (-) loss before tax from continuing operations before credit risk, market risk and op. risk losses	2.9%	2.7%	2.9%	5.9%	1.9%
Impairment or reversal of impairment on financial assets not measured at fair value through profit or loss	-4.2%	-3.9%	-4.3%	-6.1%	-3.6%
Market risk losses (including P&L, CCR and OCI)	-1.6%	-1.2%	-1.7%	-1.1%	-1.8%
Market risk: projection of client revenues	0.6%	-0.1%	0.7%	0.3%	0.7%
Accumulated other comprehensive income - Other than Market risk	-0.1%	-0.4%	-0.1%	-0.1%	-0.2%
Gains or (-) losses arising from operational risk	-0.7%	-0.7%	-0.7%	-0.8%	-0.6%
Dividends: Distributed amount after MDA-related adjustments	-0.1%	-0.2%	0.0%	-0.1%	0.0%
increase of total REA	-1.2%	-1.4%	-1.2%	-1.0%	-1.3%
Other items with impact on CET1 (incl. taxes)	-0.4%	-0.6%	-0.4%	-0.3%	-0.5%
Adverse fully loaded CET1 ratio 2023	**10.2%**	**11.4%**	**10.1%**	**10.2%**	**10.1%**
Memorandum item - CET1 ratio transitional 2023 (adverse)	**10.3%**	**11.5%**	**10.3%**	**10.5%**	**10.3%**
variation of CET1 ratio transitional (bps)	*-497*	*-610*	*-489*	*-347*	*-547*
variation of CET1 ratio fully loaded (bps)	*-485*	*-564*	*-479*	*-333*	*-536*

4.1 Impact on profitability

Table 5 shows the evolution of the main P&L components in each year of the adverse scenario and the absolute cumulative contribution to profitability and CET1 capital over the time horizon of the exercise. At the starting point, banks had a profit of 33bn EUR; at the end of the adverse scenario, the aggregate cumulative loss, net of taxes, reaches 140bn EUR (of which 127bn EUR in the first year of the adverse scenario). Credit risk cumulative impairments are the main driver of these losses (308bn EUR).

[28] Banks included in the fourth quartile of the distribution of the indicator NII on total assets, as of 31 December 2020.

[29] The subsample of banks concentrated on domestic markets includes banks belonging to the fourth quartile of the distribution of the following indicator: exposures granted to borrowers located in the same country of the bank on total exposures, as of 31 December 2020.

[30] The contribution of NII (divided by REA) is 8.50% for “non-domestic” banks and 7.80% for domestic ones.

Table 5: Evolution of EU aggregate profit and loss account (selected items) in the adverse scenario (EUR bn)[31]

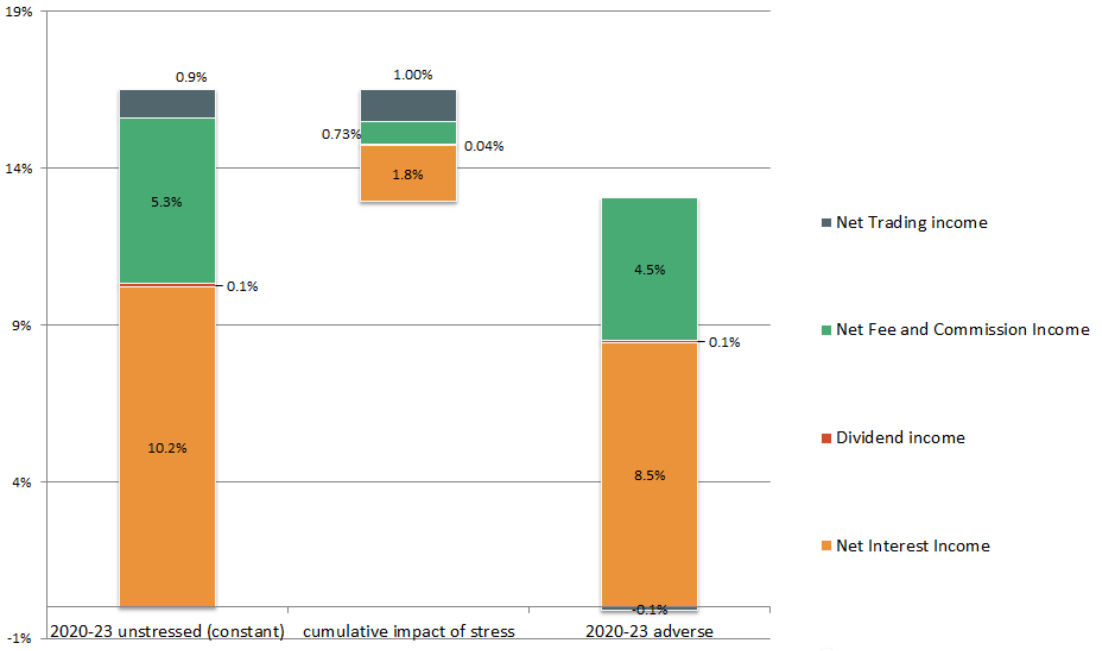
	2020	2021	2022	2023	2021 - 2023 Adverse_Cumulative
Net interest income	248	219	205	192	615
Dividend income	3	2	2	2	5
Net fee and commission income	128	111	109	110	331
Gains or (-) losses on financial assets and liabilities held for trading and trading financial assets and trading financial liabilities	22	-37	15	15	-7
Held with a trading intent and their related economic hedges	0	-17	0	0	-17
Economic hedges excluding hedges of items held with a trading intent	0	-11	0	0	-11
CVA	0	-12	0	0	-12
Liquidity reserves	0	-11	0	0	-11
Projection of client revenues	0	15	15	15	44
Gains or (-) losses on non-trading financial assets mandatorily at fair value through profit or loss and Gains or losses on financial assets and liabilities designated at fair value through profit or loss	4	-10	0	0	-10
Gains or (-) losses from hedge accounting	-0	-2	0	0	-2
Exchange differences [gain or (-) loss]_ net	-1	0	0	0	0
Other operating income	29	28	28	28	83
Other operating expenses	-20	-17	-17	-17	-51
Total operating income, net	417	294	341	328	963
Administrative expenses	-235	-227	-227	-226	-680
Impairment or reversal of impairment on financial assets not measured at fair value through profit or loss	-73	-160	-79	-68	-308
Impairment of financial assets - CCR losses	-0	-18	0	0	-18
Impairment or reversal of impairment on non-financial assets	-21	-3	-3	-1	-7
Gains or (-) losses arising from conduct risk	0	-10	-8	-9	-27
Gains or (-) losses arising from other operational risk	0	-8	-7	-7	-23
Profit or (-) loss before tax from continuing operations	54	-167	-9	-7	-183
Tax expenses (-) or income (+) related to profit or loss from continuing operations	-22	40	2	1	43
Profit or (-) loss after tax from continuing operations	32	-127	-7	-6	-140
Profit or (-) loss for the year	33	-127	-7	-6	-140
Amount of dividends paid (before consideration of MDA restrictions)	20	3	6	6	14
Distributed amount after MDA-related adjustments	24	-5	5	4	4
Attributable to owners of the parent net of estimated dividends	8	-122	-12	-10	-144

The main sources of income are NII and NFCI, which under the adverse scenario decrease by 23% and 14%, respectively, as of end 2023.

Figure 10 shows, under the adverse scenario, the cumulative contribution to capital of the banks' main sources of income reported in Table 5 (NII, NFCI, dividend income and net trading income (NTI)) as of end-2023, compared to their hypothetical unstressed contribution (i.e. keeping constant the income recognised in 2020 over the three years of the stress test). The impact under the adverse scenario is -176 bps on NII, -4 bps on dividend income, -73 bps on NFCI and -100 bps on NTI. This means that the aggregate contribution to CET1 capital ratio of these four sources of income would have been 353 bps higher without the stress implied by the adverse scenario.

[31] Only the main items are included so that sub-items do not necessarily add up to the total.

Figure 10: Cumulative CET1 ratio impact of the main sources of income over 2020-23 adverse, compared to the hypothetical unstressed contribution (% of REA)[32]



4.1.1 Net Interest Income

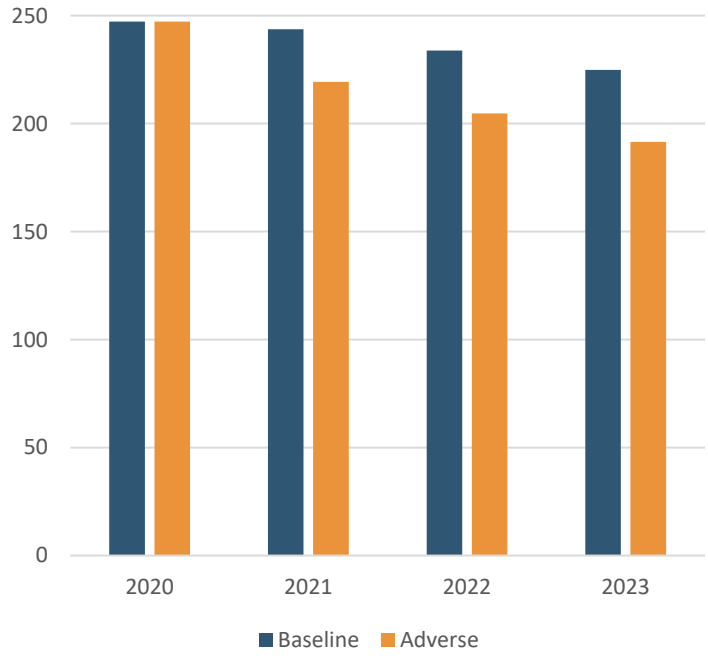
The NII methodology prescribes asymmetric pass-through constraints for the effective interest rate (EIR) of repriced (or replaced) instruments, including a floor for the margin of interest-bearing liabilities based on the maximum of a sovereign spread shock or an idiosyncratic shock, and a cap for the margin of interest-earning assets based on the evolution of the sovereign spread of the country of the exposure. Other constraints refer to the treatment of sight deposits, which have to be repriced immediately following a common definition for fixed rate sight deposits and for floating sight rate deposits. Finally, the methodology prescribes a cap applicable to the EIR of net NPEs and a cap to the overall volume of NII under the adverse scenario.

Aggregate NII falls by 56bn EUR as of 2023 in the adverse scenario compared to the starting point, a 23% drop from 248bn EUR to 192bn EUR (see Figure 11). This decrease is driven by several components. Among the factors, declining interest income is explained by the negative projections

[32] Only main items of P&L are included. In the first bar the cumulative unstressed contribution is reported (actual data, constant over the three-year horizon, on total REA); in the third bar the cumulative stressed contribution is reported (sum of projections reported over the stress test horizon, on total REA).

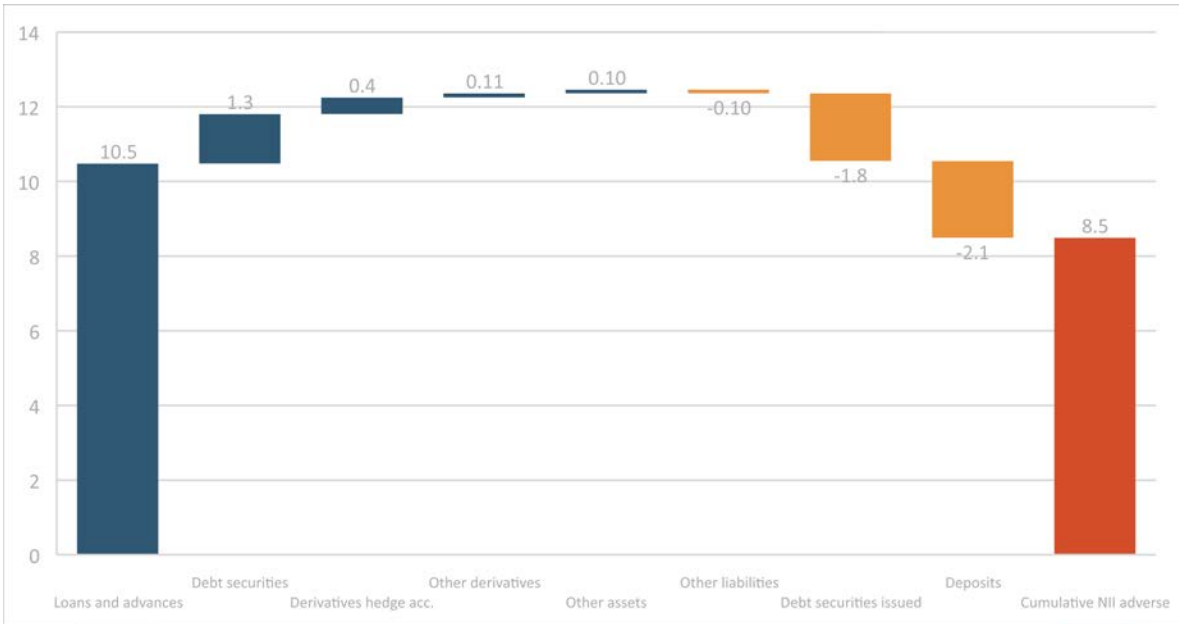
of the long-term interest rates for more than half of the jurisdictions of the sample, in the worst year of the adverse scenario compared to the starting point (in the previous stress test, all jurisdictions presented positive projections that explained the increases in both interest income and expenses). This is however partially offset by the decline of interest expense. The EIR on the assets decreases by 24 bps in the adverse scenario (from 73 bps in 2020 to 49 bps in 2023), while the EIR on the liabilities decreases by 19 bps (from 48 bps in 2020 to 29 bps in 2023). Therefore, the difference between the EIR on the assets and the cost of funding decreases from the initial 25 bps to 20 bps at the end-2023.

Figure 11: Evolution of aggregate NII (EUR bn)



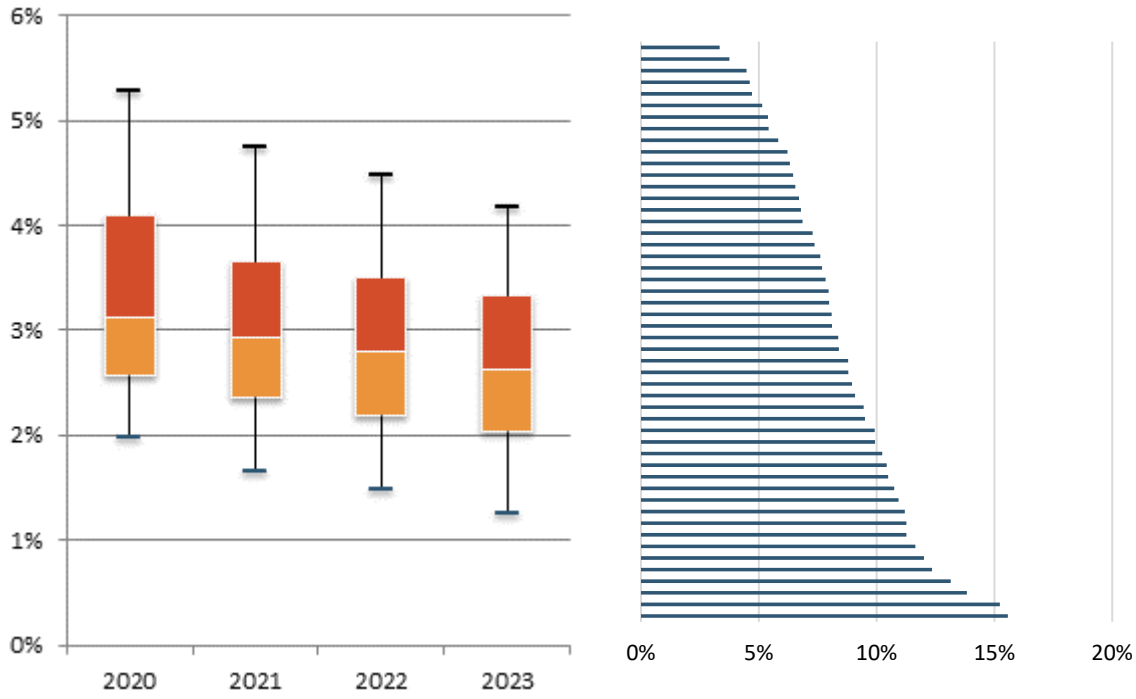
While NII has a positive contribution to capital in each year of the adverse scenario, it decreases significantly relative to the starting point, i.e. its contribution to capital formation is lower than it would have been assuming a constant (unstressed) NII. In particular, the cumulative NII after caps over 3 years is 128bn EUR lower than it would have been holding the starting value constant, which is equivalent to a 176 bps lower contribution to the CET1 capital ratio at the end of 2023 (Figure 10). Overall, the contribution of the cumulative NII to capital over the stress test horizon is 8.5%, which is mainly explained by the contribution to capital of the interest income generated by loans and advances (10.5%), see Figure 12.

Figure 12: Cumulative contribution of the NII generated by each balance sheet item to capital, in percentage points of REA



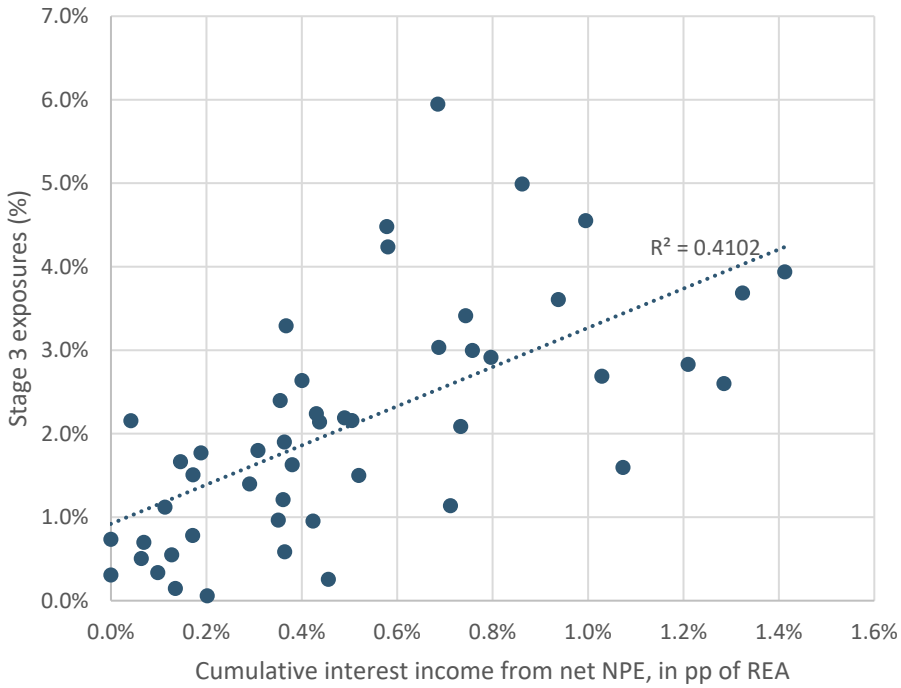
The positive contribution to capital of NII varies significantly across banks, being 8.5% on average but ranging from 3.3% to 15.6% of additional capital at the end of the adverse scenario (see Figure 13). This dispersion is not only driven by the evolution of interest rates and sovereign spreads across countries, but also by the level of effective interest rate of the banks at the starting point and by their business models. Data also shows dispersion in the contribution to capital of NII among banks in the same country.

Figure 13: Contribution of NII to CET1 capital ratio under adverse scenario, 5th and 95th percentiles, interquartile range and median in 2020 and in the adverse scenario (%) (1) Dispersion of the contribution to CET1 capital ratio of cumulative net interest income as of end 2023 under the adverse scenario by banks in the sample (2)



The contribution of the cumulative interest income recognised for the stock of NPEs over the three years of the adverse scenario to capital is 0.5% on weighted average, with a large dispersion among banks (ranging from 0% to 1.4%). As it can be observed in Figure 14, although there is a strong correlation between the cumulative interest income and the share of Stage 3 exposures over total exposures, not all the banks that are in the highest quartile of cumulative interest income obtained from NPE are in the highest quartile of the share of Stage 3 exposures.

Figure 14: Contribution to capital of cumulative interest income from NPEs as of end 2023 under the adverse scenario and proportion of Stage 3 exposures over total



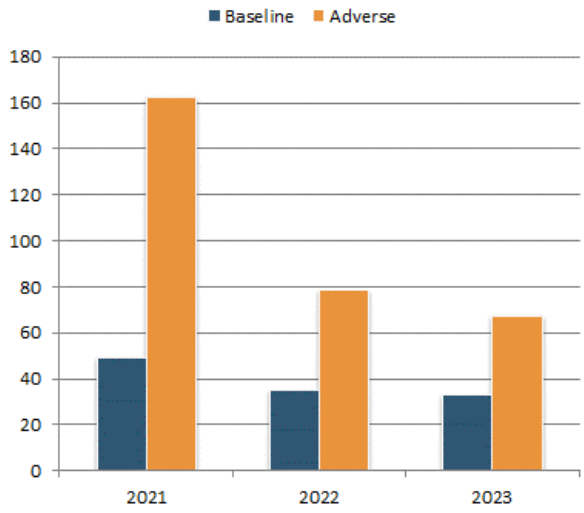
Finally, the combined application of the methodological caps on EIR of net non-performing exposures (NPEs) and on total volume of NII, drives the NII down by 1bn EUR as of end 2023, and the cumulative decrease in the aggregate NII over the stress time horizon down by 3bn EUR, i.e. 4 bps of lower contribution to capital at the end of 2023.

4.1.2 Credit risk losses

Credit risk losses[33] over the three years of the adverse scenario amount to 308bn EUR, (see Figure 15) leading to a -423 bps impact on the CET1 capital ratio. The largest impact is in the first year of the scenario, mainly due to the perfect foresight methodological assumption and to the lifetime expected credit losses (ECL) approach for stage 2 and stage 3 exposures.

[33] Credit risk losses are booked in the P&L account in the following item: "impairment or reversal of impairment on financial assets not measured at fair value through profit or loss".

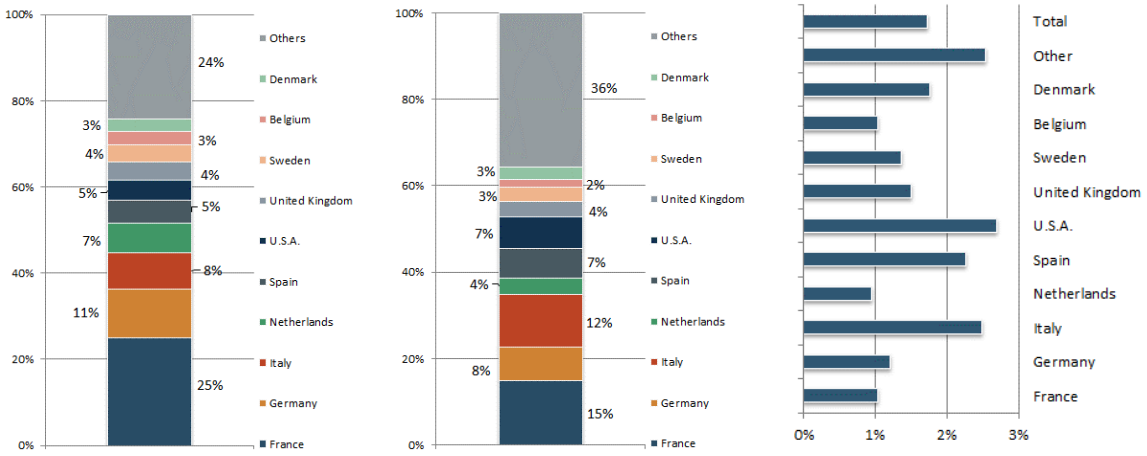
Figure 15: Evolution of absolute credit losses (EUR bn)



Exposures towards counterparties in France, Italy, Germany, US, Spain and the Netherlands are those contributing the most to credit losses in absolute terms (see Figure 16 (2)). In relative terms, as a percentage of total exposures at the starting point, the exposures towards counterparties located in the US, Italy and Spain show the highest ratio of projected impairments (above 2%) over the three years of the adverse scenario. Considering all the countries reported in the stress test data, the exposures towards counterparties located in Brazil, Peru, Mexico, Colombia and Albania show a ratio above 6%.[34]

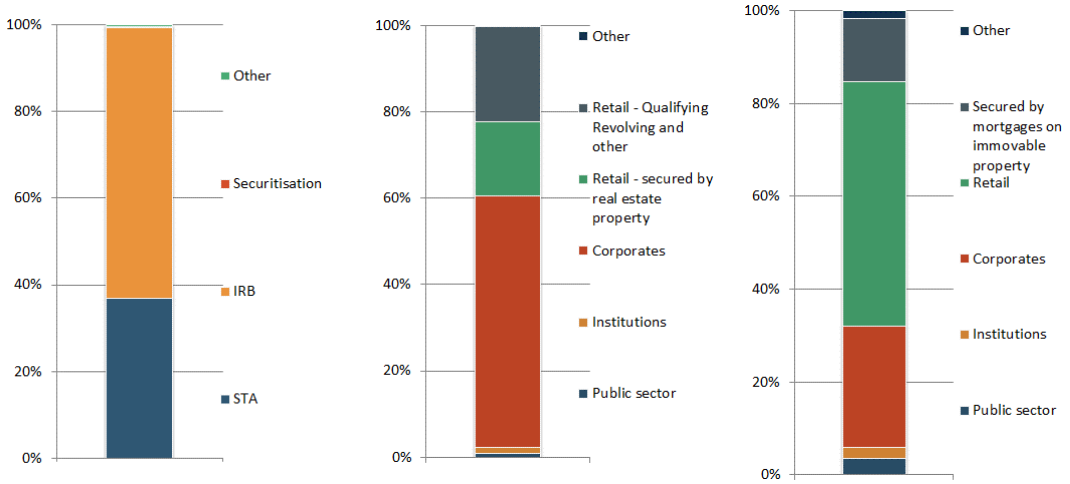
[34] The indicator is based on the breakdown of data by country of the borrowers. For every country, it is computed as the additional provisioning reported during the stress test projection (adverse scenario), as a percentage of initial exposures. The distribution of new provisioning by country of counterparty reflects not only the volume of the exposures towards counterparties in those countries, but also the severity of the scenario in the country as well as the distribution of exposures across asset classes.

Figure 16: Share of total credit risk exposures (1) share of 2021-2023 cumulative credit risk losses (2) and cumulative credit losses as a percentage of 2020 exposures (3) in the adverse scenario for selected countries of the counterparty (%)



Corporate exposures contribute the most to total losses (aggregate internal rating-based approach (IRB) and standardised approach (STA)), and therefore to capital depletion, with EUR 142bn (46% of total losses), followed by retail exposures (excluding secured by real estate property and secured by mortgages on immovable property) with more than EUR 103bn (34% of the total).

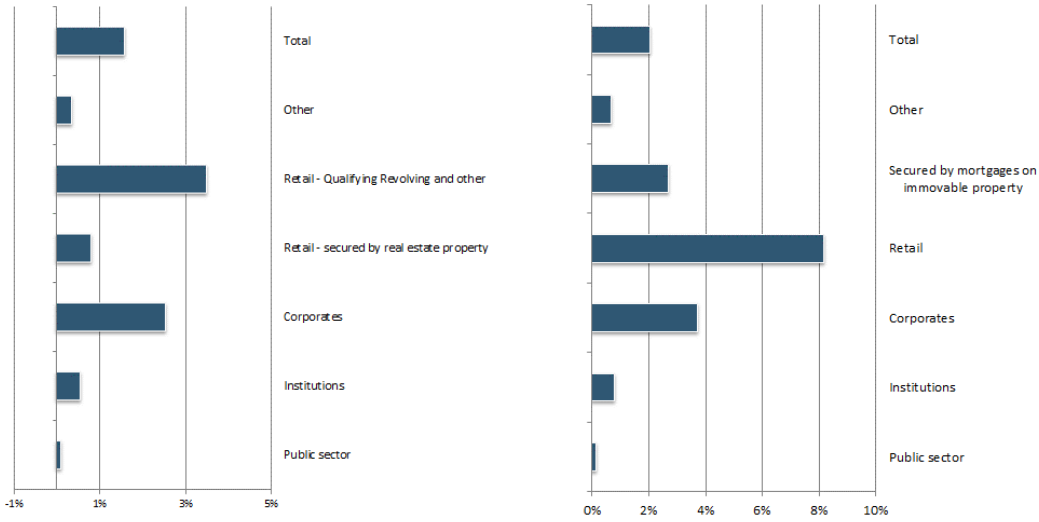
Figure 17: Contribution to cumulative 2023 credit losses in the adverse scenario – by regulatory exposure class (%) – Total (1), IRB (2), STA (3)



In relative terms, as a percentage of total exposures at the starting point, the breakdown by asset class shows that, differently from the results in absolute terms reported in the previous chart, retail

exposures non-secured by real estate assets have the highest level of cumulative impairments under the adverse scenario compared to the volume of exposures.

Figure 18: Cumulative credit losses as a percentage of 2020 exposure in the adverse scenario by regulatory exposure class: IRB (1) and STA (2) (%)



Over the stress test horizon, along with the increase of losses reported above, also the creditworthiness of the loan portfolio decreases. Over the stress test horizon, in aggregate 4.3% of the exposures that were performing in December 2020 become non-performing; the pace of asset quality deterioration is evenly distributed across the three years (about 1.5% every year, see Table 6). As expected, banks with high exposures towards the sectors most affected by the pandemic show a higher decay rate than the aggregate (Table 6).

Table 6: Decay rate (cumulative increase of S3 / performing asset at the beginning of the period) – Total (1), clusters of banks based on exposures towards "affected sectors" (2) (%, adverse scenario)[35]

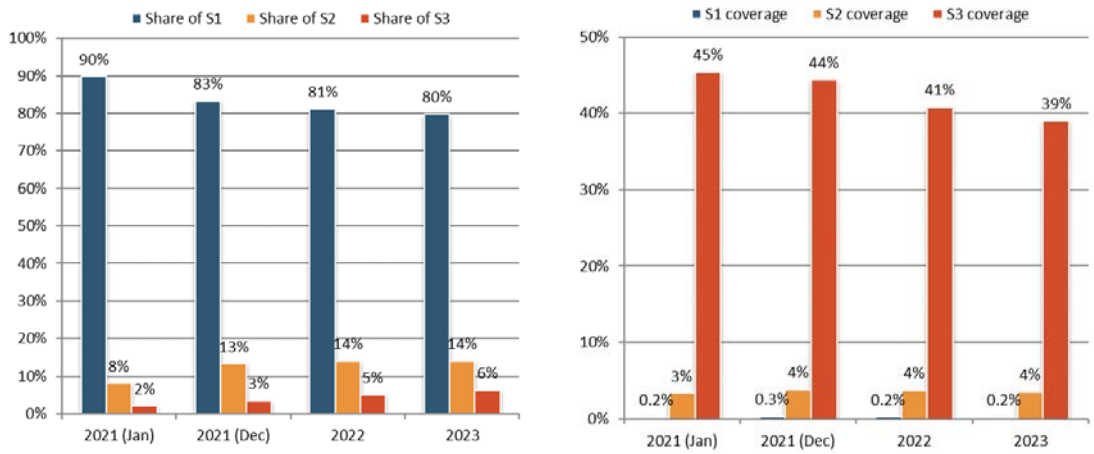
metrics	2021	2022	2023
Aggregate - baseline scenario	0.9%	0.8%	0.7%
Aggregate - adverse scenario	1.5%	1.5%	1.4%
Banks most exposed towards affected sectors	2.4%	2.3%	2.0%
Other banks	1.2%	1.3%	1.3%

With reference to the breakdown of total exposures per stages, in line with the stress test methodology, banks were asked to restate the staging of exposures reported for 2020 to account

[35] For the definition of exposed banks toward sectors most affected by COVID 19, see footnote 17.

for the assumption that moratoria are no longer in place at the start of the stress test horizon (1 January 2021). This initial restatement led to flows to riskier IFRS 9 stages, especially from stage 1 to stage 2[36]. Notwithstanding this restatement, at the beginning of 2021 the share of stage 3 exposures (2%) is lower than at the starting point of the 2018 EU-wide stress test exercise (3%). During the stress test horizon, the share of stage 3 exposures increases from 2.1% to 6.3%[37], while the share of stage 2 exposures increases from 8.1% to 14.0% (see Figure 19). The subset of banks with a high amount of exposures towards the sectors most affected by the pandemic show a higher credit risk with the stage 3 ratio increasing from 2.8% in 2020 to 9.1% in 2023. The coverage ratio for stage 3 exposures decreases over the period for the full sample (from 45% at the beginning of 2021 to 39% at the end of 2023), due to the high increase in the share of stage 3 exposures along with the lower loss rates being applied to new defaults in comparison to the loss rates of the initial defaults. In the same period, the coverage ratios for stage 1 and stage 2 exposures do not change substantially.

Figure 19: Share of exposures per stage (%) (1) and coverage ratio per stage (2) – Evolution over the projection horizon in the adverse scenario

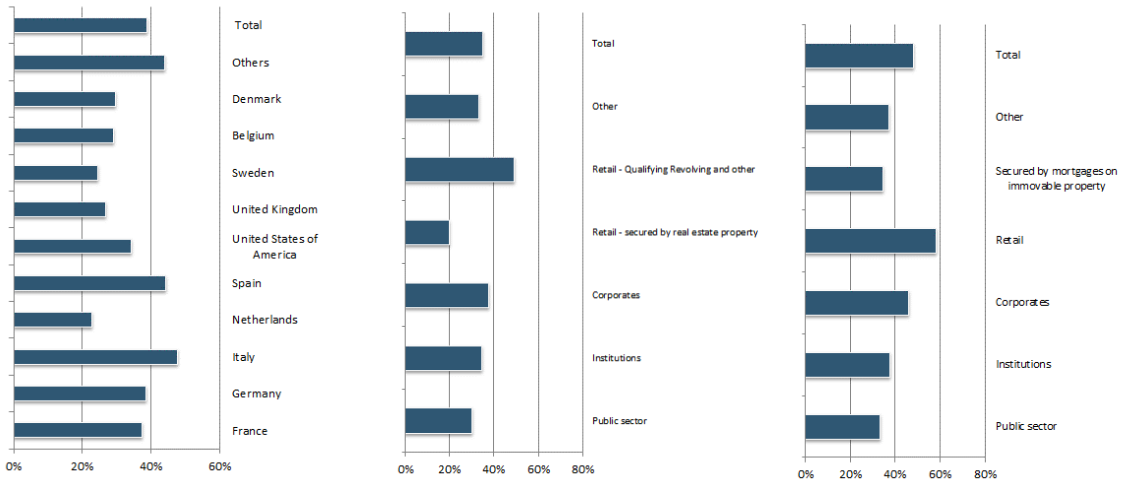


A breakdown of stage 3 coverage ratio per asset class and per country (Figure 20) shows that the highest coverage ratios are reported for retail exposures not secured by real estate properties and for Italy and Spain, consistently with the results reported in Figure 16 and Figure 18.

[36] Stage 2 exposures increased by 14% whereas stage 3 exposures increased by 2%, as a result of the restatement between 31 December 2020 and 1 January 2021 to account for the removal of the effects of moratoria.

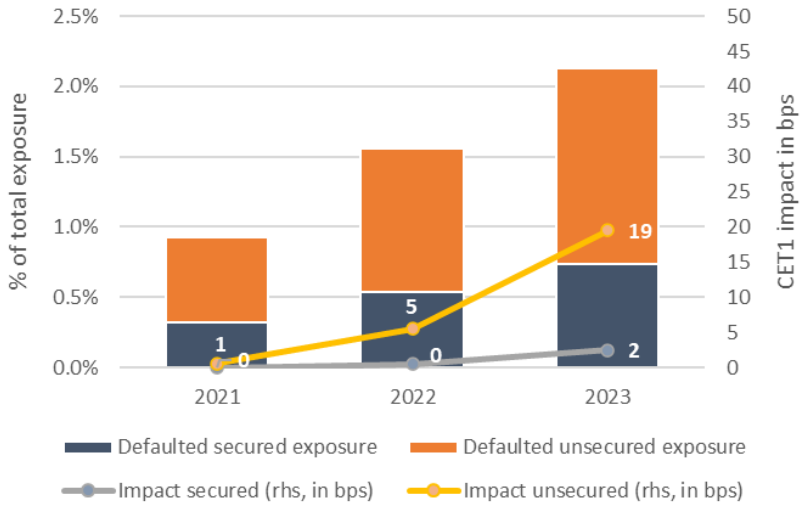
[37] According to paragraph 90 of the EBA Methodological Note, for the purpose of calculating exposures, it is assumed that no cures from stage 3 should take place within the 3-year horizon of the exercise.

Figure 20: Coverage of stage 3 exposures as a percentage of end 2023 adverse scenario – Total, for selected countries of the counterparty (1) and by regulatory exposure class: IRB (2) STA(3) (%)



With the introduction of a minimum loss coverage for NPEs[38] ("NPL calendar"), banks are required to deduct from CET1 capital the amounts of insufficient coverage for loans originated after 26 April 2019 that were classified as NPE.

Figure 21: NPL calendar: defaulted exposure subject to calendar provisioning (% on total exposures) (1) and impact on CET1 (bps) (2) – Evolution over the projection horizon in the adverse scenario



Over the stress test horizon, the amount of exposures eligible to calendar provisioning in case of NPE classification (i.e. exposures originated after 26 April 2019) steadily increases due to the replacement of maturing exposures to keep a constant balance-sheet (42% of total exposure by

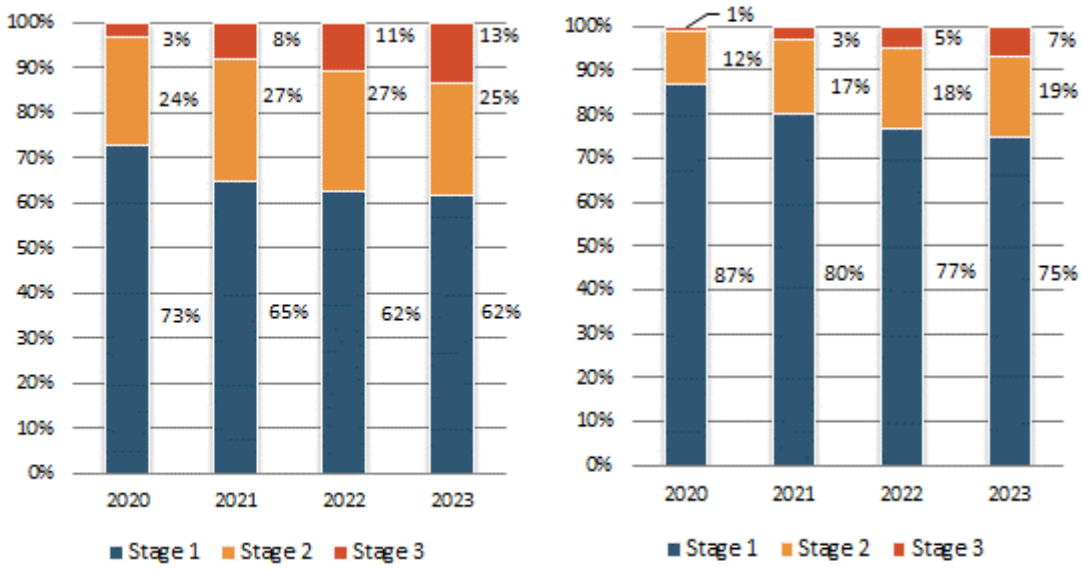
[38] Regulation (EU) No 2019/630 amending Regulation (EU) No 575/2013.

end-2021 and 49% by end-2023). During the stress test projection, the stage 3 exposures subject to calendar provisioning raise above 2% by 2023 (see Figure 21), more than half related to unsecured exposures (i.e. subject to higher rates of calendar provisioning). The total impact of calendar provisioning on CET1 capital ratio reaches 22 bps in 2023, with a cumulative impact of 28 bps during the three years of the projection.

Box 2: COVID-19 supporting measures: evolution over the projection horizon and impact on CET1 capital ratio.

Regarding exposures under moratoria or PGS, section 2.2. provides statistics based on the starting point data (i.e. actual data as of December 2020). As shown in Figure 22, over the stress test horizon exposures under moratoria classified in stage 3 increase from 3.1% at the end of 2020 to 13.4% in 2023. Considering only the subset of banks with high exposures towards the sectors most affected by the pandemic, the increase of stage 3 ratio of loans under moratoria is more significant (from 4.7% in 2020 to 17.2% in 2023). For exposures under PGS, the stage 3 ratio reaches 6.8% in 2023 (1.1% in 2020) with no material differences for the subset of banks highly exposed to the sectors most affected by COVID-19.

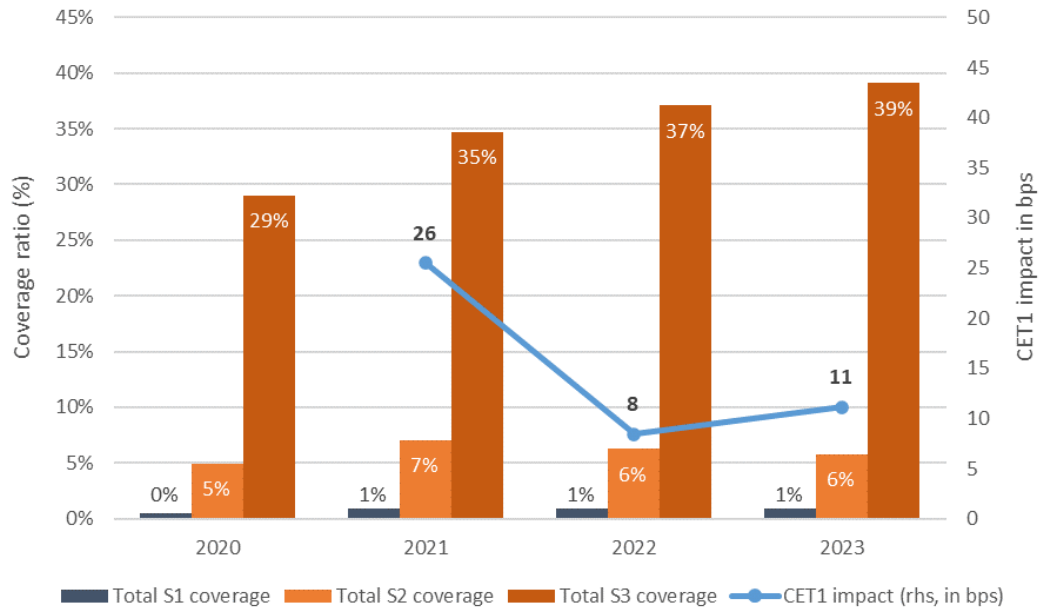
Figure 22: Composition per stages of exposure under moratoria (1) and under PGS (2) (% on total exposures under moratoria or under PGS)



The total coverage ratio of exposures under moratoria as of the start of the exercise was slightly higher than the one for the total portfolio (2.4% vs. 1.4%). This difference in coverage is also justified by the higher share of exposures subject to lifetime losses compared to the total portfolio (27% of exposures under moratoria classified in stage 2 or stage 3 vs. 9% for the total

portfolio[39]). The coverage ratio of loans under moratoria increases significantly for stage 3 exposures during the projection period (Figure 23), contrary to what is observed for the total portfolio (Figure 19). The cumulative impact on the average CET1 capital ratio from the additional provisions on exposures under moratoria reaches 45 bps, which represents more than 10% of the whole impact of credit risk losses. Considering only the subset of banks with high exposures towards the sectors most affected by the pandemic, the cumulative impact on the CET1 capital ratio is 129 bps.

Figure 23: Exposures under moratoria, projected losses: breakdown per stages (% coverage, (lhs) and impact on CET 1 (bps) (rhs)



The cumulative impact on the average CET1 capital ratio from the additional provisions on newly originated loans covered by a PGS reaches 7 bps, which represents less than 2% of the whole impact of credit risk losses. This impact reflects an increase of the coverage ratio from 0.4% in 2020 to 2.3% in 2023. The guaranteed part of these loans is, on average, greater than 80%.

[39] These values refer to the share of stage 2 and stage 3 exposures relative to the total portfolio as of 31 December 2020, i.e. before the restatement of loans under moratoria. Conversely, the distribution by IFRS 9 stage disclosed in the transparency templates TRA_CR_IRB and TRA_CR_STA refers to the exposures as of 1 January 2021, i.e. after the restatement of loans under moratoria.

4.1.3 Market risk losses, including CCR and CVA

The market risk methodology applies to all NTI components[40], CCR exposures, hedge accounting positions, other comprehensive income (OCI), non-trading financial assets mandatorily at fair value through profit or loss and financial assets and liabilities designated at fair value. These are stressed only in the first year of the adverse scenario with instantaneous shocks, as provided in the market risk scenario. In the second and the third year of the adverse scenario, the methodology allows for a reduced trading income which depends on the projection of client revenues and the historical NTI[41]. In addition, the bid-ask spread of L1, L2 and L3 instruments are stressed with the shocks provided in the market risk scenario which lead to an increase in the reserves on fair value adjustments and additional valuation adjustments (AVA), covering liquidity issues and model risk[42].

Market risk losses in the first year of the adverse scenario amount to 118bn EUR (163 bps), of which 37bn EUR (51 bps) is recognised in P&L. The cumulative net impact, i.e. considering also the income generated by client revenues projections over the 3 years of the adverse scenario, is 102 bps.

The main drivers of the market risk impact in 2021 (see Figure 24 (1)) are NTI, OCI and CCR which represent 31%, 24% and 15% of total market losses respectively. As shown in Figure 24 (2) the dispersion of the total 3-year cumulative impact coming from market risk is significant, ranging from -50 bps (10th percentile) to -183 bps (90th percentile).

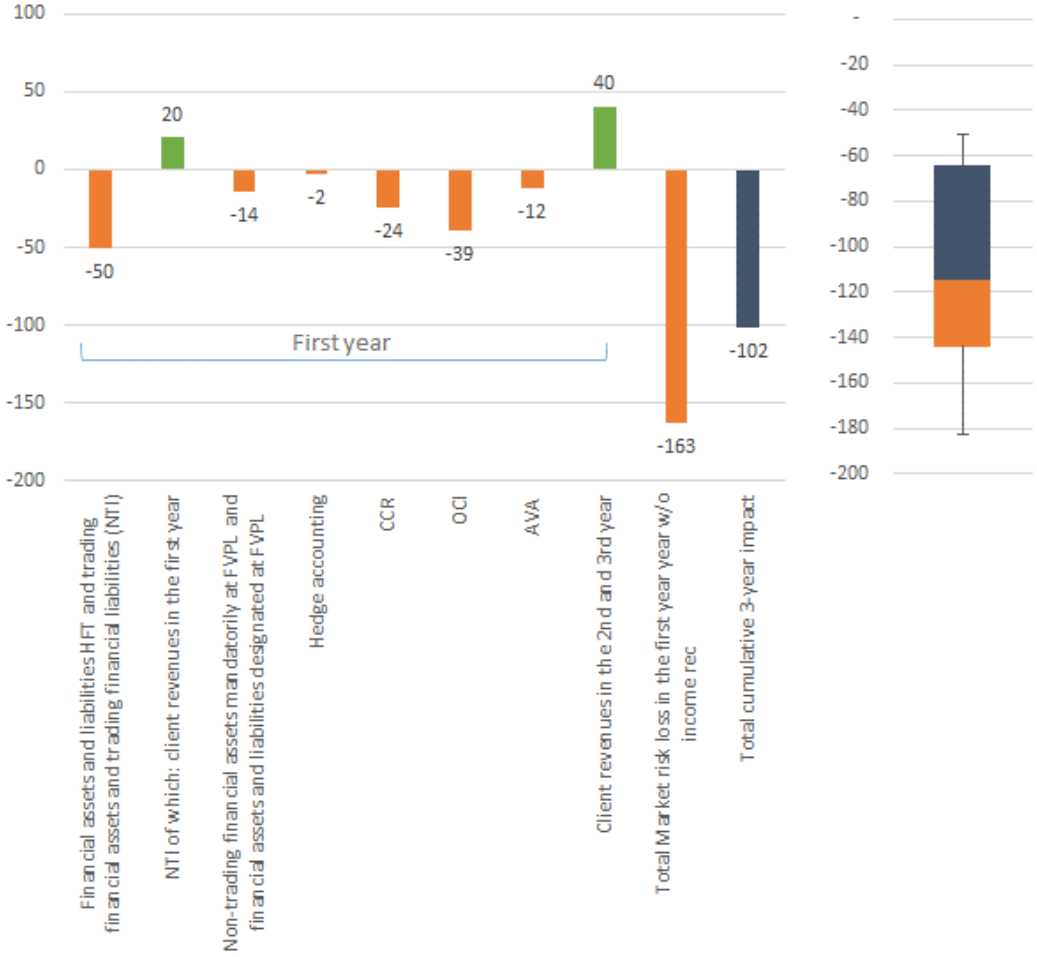
The main drivers of the NTI drop in the first year of the adverse scenario are HFT and CVA losses amounting to -17bn EUR and -12bn EUR, respectively. Client revenues in 2021 dropped by 38% (from 24bn to 15bn EUR), representing still a positive contributor to the NTI in the three years of the adverse scenario (+61 bps).

[40] Held with a trading intent (HfT), Credit Valuation Adjustments (CVA), Economic hedges, Liquidity reserves and Client revenues.

[41] The historical NTI is equal to the P&L item "Gains or (-) losses on financial assets and liabilities held for trading and trading financial assets and trading financial liabilities" as defined in FINREP and as showed in the transparency P&L template.

[42] L2 instruments that are cleared at a CCP are out of scope for the model uncertainty shock. Regarding adjustments to AVA reserves, only those related to market price uncertainty, close out cost and model risk are in scope.

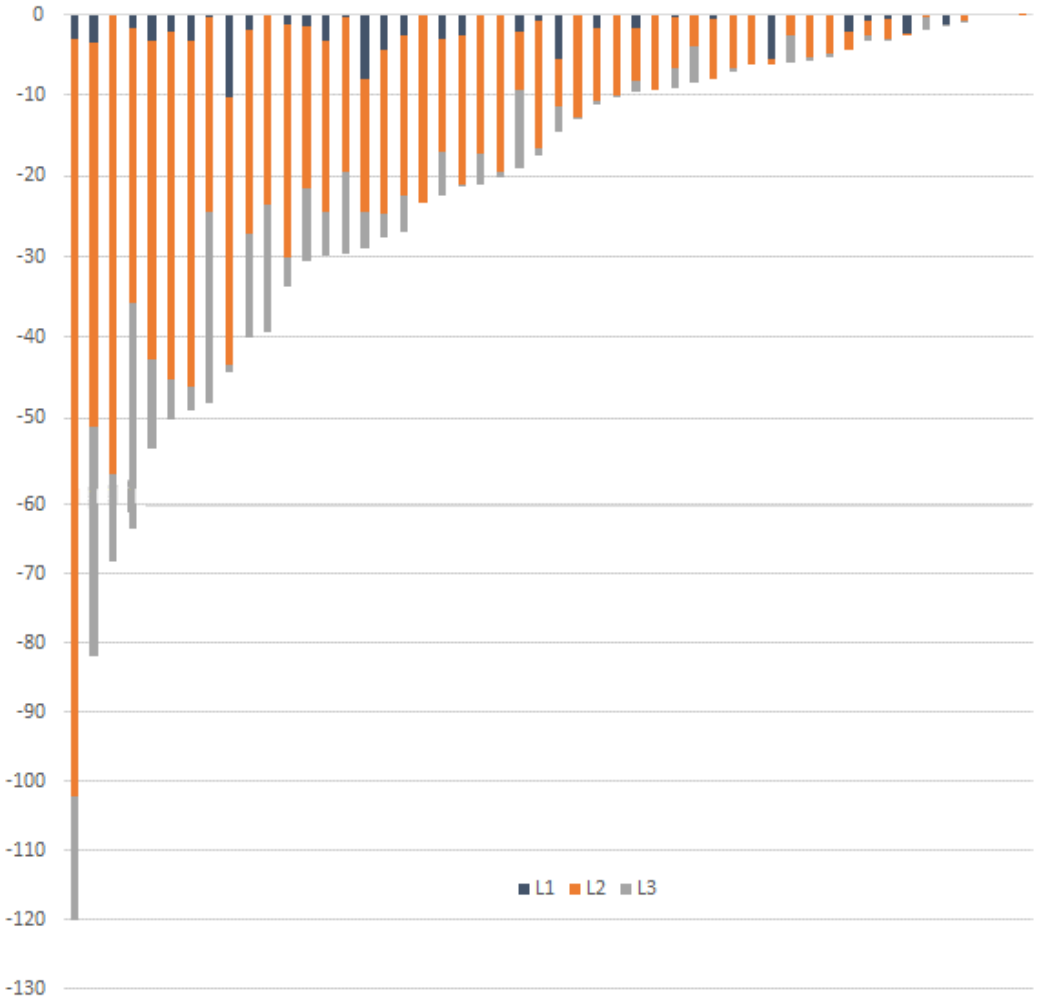
Figure 24: a) Contribution of different market risk components to market risk losses under the adverse scenario in 2021 (bps) (1) and distribution among the sample (10th, 25th, 50th, 75th , 90th percentiles) of the 3-year cumulative market risk impact in the adverse scenario (bps) (2)



Regarding reserves, the total impact coming from the liquidity and model uncertainty shock on L1, L2 and L3 instruments amounts to -26bn EUR (-35 bps[43]) of which -7bn EUR corresponds to L3 assets and -18bn EUR to L2 assets, and affects capital mainly through P&L. Data projected by banks exhibit some dispersion in terms of losses coming from the liquidity and model uncertainty shock (as shown in Figure 25). In particular, the impact is significant for some banks (above 60 bps).

[43] The total impact from L1, L2 and L3 instruments is recognised in P&L, OCI and AVA.

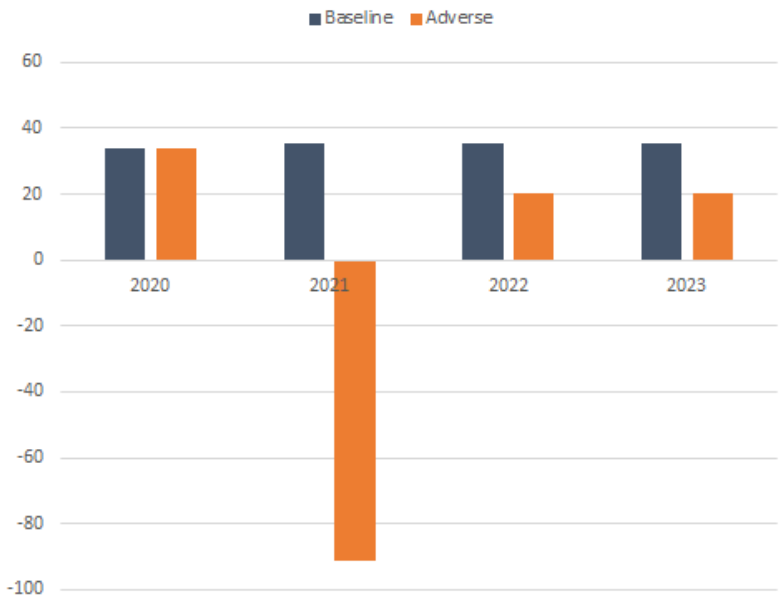
Figure 25: Impact in CET1 capital ratio in the 2021 adverse scenario of the model uncertainty and liquidity shock by instrument type and by bank (bps)



Looking at the evolution of the P&L impact (Figure 26), the losses in the first year of the adverse scenario are partially offset by the positive income in the next years resulting in a net cumulative P&L loss in the adverse scenario of -37bn EUR (51 bps)[44].

[44] The remaining 50 bps come from OCI and AVA, as shown in Figure 27.

Figure 26: Evolution of market risk P&L impact (bps)



Box 3: Sovereign exposure

The risks arising from sovereign exposures are covered in credit risk and in market risk, depending on their accounting treatment. In addition, according to the NII methodology, banks have to project the net interest income from sovereign exposures over the 3 years of the adverse scenario.

For sovereign exposures at amortised cost, banks had to estimate default and impairment flows applying a set of probability of default (PD) and loss given default (LGD) parameters developed by the ECB for a selection of countries.

Sovereign exposures at fair value through profit and loss (FVPL) or fair value through other comprehensive income (FVOCI) are treated under the market risk methodology by applying a full revaluation performed under the adverse market conditions described in the market risk scenario.

Total credit risk spread losses coming from FVPL or FVOCI direct sovereign positions and their related credit risk hedges, amount to 21bn EUR (29 bps) at EU aggregate level. Losses across the sample range from 1 bps to -72 bps (90th and 10th percentile respectively).

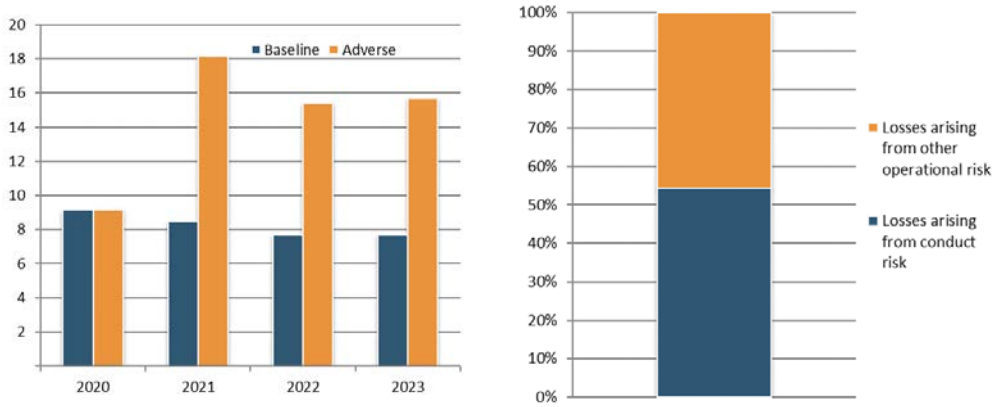
Detailed bank-by-bank sovereign exposures by country of the counterparty are regularly published in the EU-wide transparency exercise.

4.1.4 Conduct risk and other operational risk

Similar to the previous exercises, in the 2021 EU-wide stress test the projections of operational risk losses were split into three main categories: material conduct risk losses, non-material conduct risk losses and other operational risk losses. While the methodology required banks to use their internal models, the projections were subject to floors based on their loss experience. The changes that were introduced to the methodology in comparison with the previous exercise mainly focused on the projections of material conduct risk losses. In addition, for improving the accuracy of projecting material conduct risk losses, banks were asked to consider information connected to such cases until 14 May 2021. Further guidance was also introduced for justifying the breach of the floor for material conduct risk losses that was used by supervisors during the quality assurance process (see Box 4).

Aggregate cumulative operational risk losses in the adverse scenario are 49bn EUR, with a negative impact on capital of 68 bps. Conduct risk losses account for 26.7bn EUR, with a negative capital impact of 37 bps. The remaining amount is composed of projected losses classified as other operational risk losses (see Figure 27). In total, 9 banks estimated a negative impact of conduct risk above 1bn EUR. Banks projected the largest volumes of losses in 2021, when operational risk losses almost double from 9.2bn EUR in 2020 to 18.2bn EUR in 2021 in the adverse scenario. Within operational risk losses, conduct risk losses increase by 110%, from 4.8bn EUR in 2020 to 10bn EUR in 2021.

Figure 27: Evolution of operational risk losses (EUR bn) (1) and contribution of conduct risk and other operational risk to cumulative losses in the adverse scenario (%) (2)

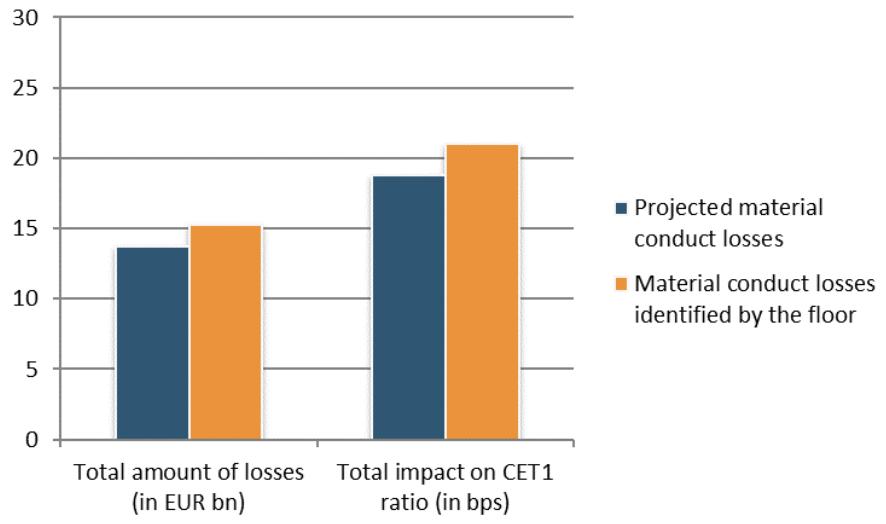


Box 4: Comparison between the projected material conduct risk losses and the floor for material conduct risk losses in the adverse scenario

Projections of conduct losses connected to material conduct risk events are subject to a supervisory floor in the quality assurance process. Banks that submit projections that are lower than the floor are required to justify their projections to their CAs. In order to justify their projections banks were able apply the following criteria: back-testing of material conduct risk losses in the adverse scenario during the previous EBA stress tests exercises, projection of losses due to unknown material conduct risk events, ratio of new material conduct risk cases in relation to the historical material conduct risk cases, and improvements of their internal controls. CAs were then asked to decide on whether to apply or not the supervisory floor. If CAs decided to make use of it, the floor would apply only for the projections under the adverse scenario and is computed as three times the average of the historical losses reported by the banks during the five years prior to the beginning of the exercise (the 2016-2020 period) for material conduct risk events multiplied by a stress factor (1.15).

For the three-year horizon, the banks in the sample projected 14bn EUR of material conduct risk losses in the adverse scenario. This corresponded to 19 bps of negative impact on the CET 1 ratio on weighted average basis. If all of the banks applied the floor on material conduct risk losses, they would rise to 15bn EUR, having a negative CET1 impact of 21 bps (weighted average). Compared to the 2018 exercise, the impact of material conduct risk losses has decreased, which is in line with a decreasing trend of such losses since the peak in 2014. Banks projections of material risk losses are much closer to the losses determined by the non-binding floor in comparison to the projections in the 2018 exercise.

Figure 28: Comparison between the projected material conduct risk losses and the floor for material conduct risk losses under the adverse scenario (EUR bn and bps)

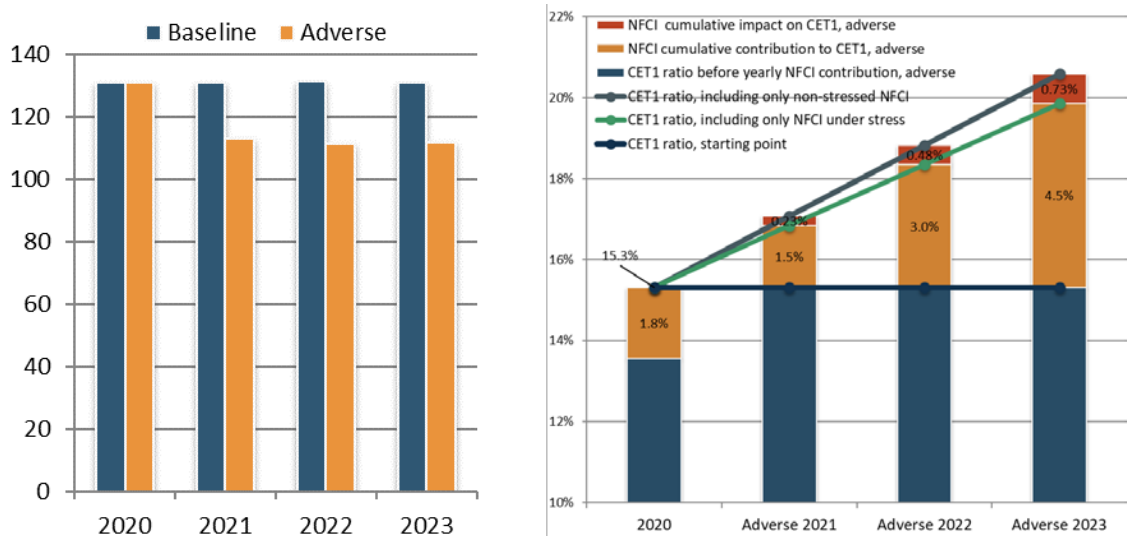


4.1.5 Non-interest income and expenses[45]

Other P&L drivers to the stress test impact on banks' capital are related to non-interest income and expenses items. Among these, NFCI, dividend income as well as share of the profit or loss of investments in subsidiaries, joint ventures and associates, have the greatest impact partially counterbalanced by remaining other administrative expenses.

Banks were required to project dividend income and NFCI by making use of their own models, but subject to a minimum reduction in the adverse scenario. From 2020 to 2023, in the adverse scenario, the combined decrease of these sources of income is 19bn EUR (-14.5%). Figure 29 compares the cumulative contribution of NFCI to the CET1 ratio (orange bars) with the NFCI cumulative impact on capital (red bars) which is calculated as the difference between the build-up of income in a non-stressed situation (given by three times the amount reported at the starting point) and the actual cumulative projection in the adverse scenario. The graph shows that in a non-stressed situation, the positive cumulative impact on capital arising from NFCI would be 73 bps higher (see Figure 29).

Figure 29: Evolution of NFCI and dividend income (EUR bn) (1), and cumulative impact to CET1 capital ratio of NFCI (2)



The common methodology requires banks to project remaining other operating expenses, depreciation and other provisions or reversal of provisions floored at the starting level. The same restriction applies to remaining other administrative expenses but for this item the floor is adjusted in every year of the stress test horizon to take into account FX effects. However, projections can fall below the 2020 values in exceptional cases, namely when selected one-off costs incurred in 2020 are treated as one-off events that would not occur in 2021-2023. Remaining other

[45] According to paragraph 25 of EBA Methodological Note, starting points are reported in line with the regulation and supervisory decisions applicable as per the reference date of December 31st 2020, including the ECJ rulings of September 9th 2020 on irrevocable payment commitments (IPCs).

administrative and other operating expenses, depreciation and other provisions decrease by 11bn EUR (-4 %) in the adverse scenario from 2020 to 2023.

Box 5: One-off adjustments

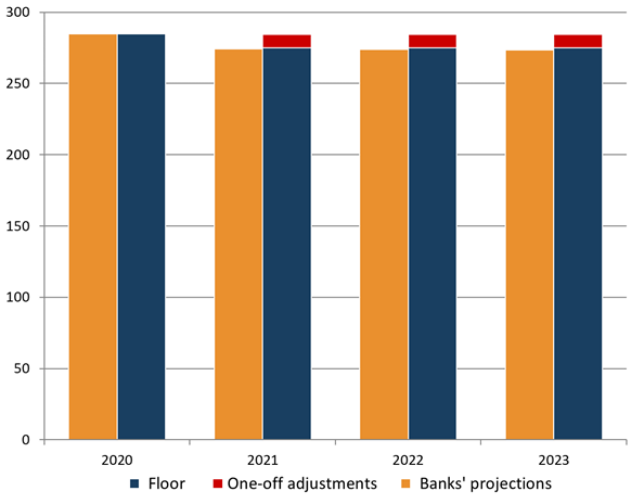
As in 2018, the methodology for the 2021 EU-wide stress test states that remaining other administrative expenses, remaining other operating expenses, depreciation and other provisions or reversal of provisions cannot fall below the value reported at the starting point. As a difference to the applicable methodology for the 2018 EU-wide stress test, for the 2021 EU-wide stress test the floor is adjusted in every year of the stress test horizon to take into account FX effects. Additionally, adjustments of these constraints for one-off effects are only permitted with a number of restrictions and are subject to a thorough quality assurance by competent authorities and approval by the EBA Board of Supervisors. In particular, the banks had to provide evidence of the non-recurrence of the event, whose cumulative impact on capital could not be lower than 5 bps, in order to avoid negligible adjustments. Banks were allowed to submit a maximum of five one-off adjustment requests, for consideration by the respective competent authority and by the EBA. The following instances were permissible for an assessment as a one-off event:

- Extraordinary (i.e. non-recurring) expenses incurred due to divestments of business units in 2020;
- Business unit restructuring completed in 2020, including measures that are part of a restructuring plan approved by the European Commission, leading to increased integration of one-off costs before synergies can be realised;
- The severance costs associated to employee restructuring/lay-offs;
- Extraordinary ex-post contributions to deposit guarantee schemes (DGS) and resolution funds (RF).

In total, 23 banks adjusted their cost projections based on one-off events. One-off adjustments account for EUR 9.3bn of the reduction in the relevant P&L items in each year of the scenario compared to the starting point, with a yearly impact on the total CET1 capital ratio of the sample of 13 bps. On a cumulative basis, the reduction over the three years was EUR 27.9bn with an impact on the CET1 of the sample of 38 bps. Banks in the sample reported an amount of expenses slightly below the floor once this was adjusted for the one-offs .This effect is mainly driven by the account for FX effect on remaining other administrative expenses (Figure 30).[46]

[46] The impact resulting from one-off adjustments approved by the EBA Board of Supervisors is disclosed in the individual results for each bank.

Figure 30: Evolution of administrative expenses, other operating expenses, other provisions and depreciation (EUR bn)[47]



Box 6: Maximum Distributable Amount

The 2018 EU-wide stress test methodology introduced some specific guidance on restrictions on distributions when the MDA rules are triggered, in line with Article 141 of the CRD. The trigger point was defined according to Article 141(3) CRD and following the Pillar 2 framework definition of overall capital requirement (OCR).[48]

If in any year of the scenario the projected CET1 capital ratio fell below the combined buffer requirement, banks were asked to calculate their MDA and project reductions of distributions in line with some simplifying assumptions:

- the reduction in distribution shall be reported in the MDA relevant template and the P&L template should show un-adjusted distributions.
- in years of the scenario where the MDA trigger is breached, banks are required to assume to distribute exactly the MDA.
- the MDA shall always be set to 0 in loss making years when the MDA trigger is breached, unless the presence of pre-tax distributions would offset the loss made.

For the calculation of the MDA, the specific template allowed the determination of the appropriate MDA factor as outlined in Article 141(6) of the CRD, in line with the specific quartile of the combined buffer requirement.

[47] In Figure 30, the orange bar represents banks' projections, the blue bar represent level of the floor applicable to administrative expenses, other operating expenses, other provisions and depreciation and the red bar represents the amount of one-off adjustments.

[48] The sum of own funds requirements as specified in Article 92 CRR, plus additional own funds requirements, capital buffer requirements and macro-prudential requirements, when expressed as own funds requirements.

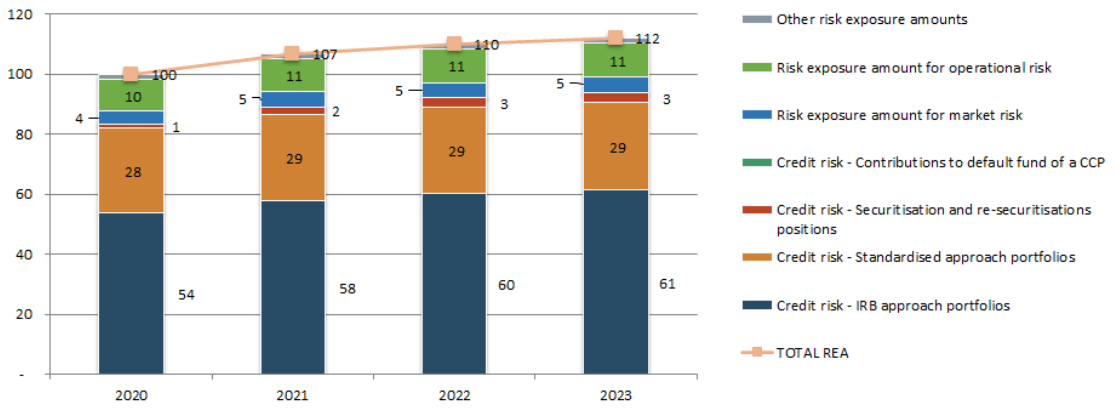
During the projection years of the stress test, 22 banks hit the trigger of the combined buffer requirement and made use of such distribution restrictions. Following the MDA adjustments, these banks decreased their distributions by 18.8bn EUR, with a positive impact on the total CET1 capital ratio of the sample of 26 bps.

Other important contributors to the aggregate P&L is share of the profit or (-) loss of investments in subsidiaries, joint ventures and associates accounted for using the equity method and other operating income. The share of the profit or (-) loss of investments in subsidiaries, joint ventures and associates accounted for using the equity method decreased by 1.6 bn EUR or 17% from 2020 to 2023 in the adverse scenario. Other operating income decreased by 0.9 bn EUR or 3% from 2020 to 2023 in the adverse scenario.

4.2 Impact on risk exposure amount

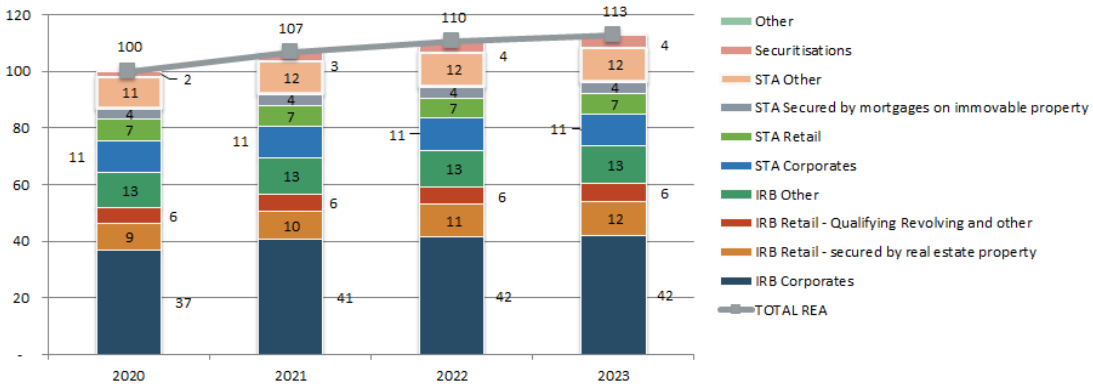
At the starting point, the main components of the REA are related to credit risk (83% of total REA, in 2020). Under the adverse scenario, total REA (both transitional and fully loaded) increases by about 12% as of end 2023, driving an impact on CET1 capital ratio of -121 bps. This increase is mainly driven by the increase on the REA for credit risk and, in particular, by the IRB REA. The rest of the increase is mostly explained by the increase in REA for securitisation positions. In fact, the prescribed methodological shock to the REA for securitisations results in the starting value more than doubling, albeit, with a small absolute impact. Market and operational risks, although relevant in the analysis of total stock of REA, have a smaller increase over the period of the exercise.

Figure 31: Evolution of REA by risk type under the adverse scenario (2020 actual = 100)



Among the different asset classes making up credit risk REA, IRB corporates show the highest increase in the period.

Figure 32: Evolution of REA for credit risk, per asset class, under the adverse scenario (2020 actual = 100)

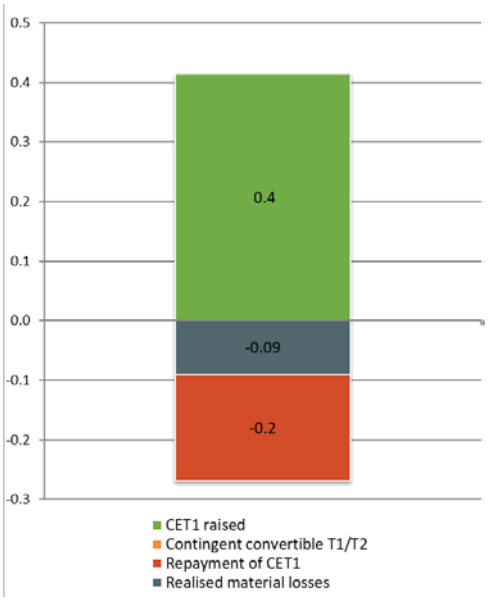


5. Capital measures between January 2021 and March 2021

According to the static balance sheet assumption, no capital measures taken after year-end 2020 were to be considered in the stress test exercise. For this reason, capital actions taken after the reference date as well as any losses realised during the projection years do not affect the stress test results ('below the line' impact). Major capital measures and losses between January and March 2021 are disclosed on a separate template.

Overall, 0.4bn EUR of CET 1 Capital was raised between January and March 2021. The repayment of CET 1 capital amounted to 0.2bn EUR in total. Banks reported realised losses for a total of 0.09bn EUR, including realised fines/litigation costs. Conduct risk related losses reported in this template should be considered by banks in their projections for conduct risk in 2023, which are deducted from the capital ratios projected by the bank. This template informs of the part of the conduct risk losses projected by the banks that were realised during the first quarter of 2021.

Figure 33: Capital measures taken by the banks during the first quarter of 2021 (EUR bn)



6. Conclusions

Year 2020 was characterised by an unprecedented decline of real GDP and the effects of the COVID-19 pandemic. The 2021-EU wide stress test exercise, initially planned for 2020 and then postponed to 2021 to allow banks to prioritise operational continuity, grounds on projections based on 2020 actual data and on a prolonged COVID-19 scenario in a "lower for longer" interest rate environment. With a cumulative drop of real GDP in three years by 3.6% in the EU, the 2021 adverse scenario is very severe having in mind the weaker macroeconomic starting point in 2020 as a result of the unprecedented pandemic-induced recession.

Against this background, the impact of the stress test exercise on the EU banking system, in aggregate and under the envisaged adverse scenario, is equal to -497 bps (on a transitional basis). However, despite such a relevant impact, banks in the EU-wide stress test end up with an aggregate CET1 capital ratio above 10%, at the end of the stress test horizon. For banks more focused on domestic activities or with lower NII, the impact of the exercise is higher. The subset of banks with a high amount of exposures towards the sectors most affected by the pandemic show a higher credit risk, in terms of stage 3 ratio.

The exercise is accompanied by the publication of granular data at a bank-by-bank level, which is crucial particularly at times of increased uncertainty in the markets and which fosters market discipline. The results of the exercise are an input to the SREP and will form a solid ground for a discussion with supervisors and individual banks, in order to understand relevant management actions (i.e. capital planning) and, therefore, ensure that banks will remain above the applicable capital requirements, while continuing to finance the economy.

As part of the SREP, supervisors will consider the impact together with the managerial decisions and capital actions in order to assess banks' capital position and decide on the potential need to set a Pillar 2 capital guidance.

7. Annex I: Capital ratios for individual banks

Table 7: Transitional CET1 capital ratios (%) and deltas to starting point (bps)

country	Bank name	actual 2020	baseline 2023	adverse 2021	adverse 2022	adverse 2023	delta	Peak-to-trough
AT	Raiffeisen Bank International AG	13.6%	14.1%	10.5%	9.7%	9.0%	-462	462
AT	Erste Group Bank AG	14.5%	15.6%	11.4%	10.9%	10.4%	-410	410
BE	KBC Group NV	18.1%	19.6%	15.2%	14.4%	14.3%	-381	381
BE	Belfius Banque SA	17.1%	16.7%	15.0%	14.5%	14.0%	-309	309
DE	DZ BANK AG Deutsche Zentral-Genossenschaftsbank	15.3%	15.6%	11.2%	10.8%	10.3%	-499	499
DE	Landesbank Baden-Württemberg	15.1%	14.9%	10.1%	9.4%	8.5%	-662	662
DE	Deutsche Bank AG	13.6%	13.6%	8.9%	8.5%	7.6%	-609	609
DE	COMMERZBANK Aktiengesellschaft	13.2%	13.3%	10.4%	9.5%	8.5%	-470	470
DE	Bayerische Landesbank	15.9%	16.1%	12.2%	11.2%	10.0%	-590	590
DE	Landesbank Hessen-Thüringen Girozentrale	14.7%	15.7%	10.3%	9.7%	9.1%	-561	561
DE	Volkswagen Bank	18.1%	17.5%	17.0%	16.4%	15.5%	-262	262
DK	Danske Bank	18.3%	18.9%	13.8%	12.4%	11.5%	-679	679
DK	Jyske Bank	17.9%	18.7%	12.9%	12.1%	11.6%	-634	634
DK	Nykredit Realkredit	20.2%	21.4%	16.0%	13.8%	13.9%	-631	647
ES	Banco Santander S.A.	12.3%	14.9%	10.3%	10.4%	9.9%	-240	240

country	Bank name	actual 2020	baseline 2023	adverse 2021	adverse 2022	adverse 2023	delta	Peak-to-trough
ES	Banco Bilbao Vizcaya Argentaria S.A.	12.2%	13.1%	10.0%	9.3%	9.0%	-319	319
ES	Banco de Sabadell S.A.	12.6%	12.9%	9.3%	7.9%	7.1%	-550	550
ES	Bankinter, S.A.	12.3%	14.6%	11.2%	11.1%	11.2%	-104	122
FI	OP Osuuskunta	18.9%	18.1%	15.5%	13.7%	12.7%	-619	619
FI	Nordea Bank Abp	17.1%	18.2%	13.7%	13.8%	13.4%	-369	369
FR	BNP Paribas	12.8%	12.9%	9.4%	8.7%	8.3%	-448	448
FR	Groupe Crédit Agricole	17.2%	16.9%	13.5%	12.0%	10.9%	-631	631
FR	Société générale S.A.	13.4%	13.6%	9.3%	8.4%	7.7%	-570	570
FR	Confédération Nationale du Crédit Mutuel	18.7%	19.7%	14.7%	14.0%	13.4%	-530	530
FR	Groupe BPCE	16.0%	16.2%	12.5%	11.1%	10.2%	-580	580
FR	HSBC Continental Europe	12.6%	11.9%	6.9%	7.0%	5.9%	-667	667
FR	La Banque Postale	20.4%	19.4%	13.6%	12.1%	11.2%	-916	916
HU	OTP Bank Nyrt.	15.4%	16.3%	13.4%	12.3%	11.3%	-415	415
IE	Bank of Ireland Group plc	14.9%	14.1%	11.2%	9.8%	8.8%	-611	611
IE	AIB Group plc	18.9%	14.7%	15.2%	12.5%	9.6%	-936	936
IT	UniCredit S.p.A.	16.0%	15.8%	11.7%	10.5%	9.6%	-637	637
IT	Banca Monte dei Paschi di Siena S.p.A.	12.1%	9.3%	7.7%	4.1%	0.3%	-1,179	1,179
IT	Intesa Sanpaolo S.p.A.	14.7%	15.1%	10.6%	9.9%	9.4%	-533	533
IT	Banco BPM S.p.A.	14.6%	14.7%	9.7%	8.2%	7.0%	-758	758
IT	Mediobanca - Banca di Credito Finanziario S.p.A.	16.2%	17.2%	12.5%	11.9%	11.5%	-467	467

country	Bank name	actual 2020	baseline 2023	adverse 2021	adverse 2022	adverse 2023	delta	Peak-to-trough
NL	ABN AMRO Bank N.V.	17.7%	19.1%	14.4%	13.8%	13.5%	-418	418
NL	BNG Bank N.V.	33.4%	33.7%	26.6%	25.3%	23.5%	-989	989
NL	Nederlandse Waterschapsbank N.V.	45.1%	45.7%	38.2%	38.2%	37.8%	-728	728
NL	ING Groep N.V.	15.4%	16.1%	13.0%	11.9%	11.0%	-445	445
NL	Coöperatieve Rabobank U.A.	16.8%	16.4%	12.4%	10.9%	10.1%	-669	669
NO	DNB Bank Group	19.6%	22.3%	16.7%	16.9%	17.1%	-252	294
PL	Powszechna Kasa Oszczednosci Bank Polski SA	17.0%	18.0%	16.0%	15.5%	15.4%	-162	162
PL	Bank Polska Kasa Opieki SA	17.1%	17.7%	15.9%	15.7%	15.5%	-165	165
PT	Banco Comercial Português, SA	12.2%	13.8%	8.8%	8.6%	8.3%	-389	389
PT	Caixa Geral de Depósitos, SA	18.2%	19.4%	15.2%	15.2%	15.3%	-288	300
SE	Skandinaviska Enskilda Banken — group	21.0%	23.7%	16.9%	16.9%	17.4%	-357	411
SE	Swedbank — group	17.5%	20.2%	14.9%	15.0%	15.3%	-214	255
SE	Svenska Handelsbanken — group	20.3%	21.0%	16.6%	16.2%	16.2%	-410	410
SE	SBAB Bank AB – group	13.4%	16.3%	12.1%	12.0%	12.3%	-108	140
SE	Länförsäkringar Bank AB (publ)	16.7%	18.5%	15.4%	16.5%	15.9%	-80	126

Table 8: Fully loaded CET1 capital ratios (%) and deltas to starting point (bps)

country	Bank name	actual 2020	baseline 2023	adverse 2021	adverse 2022	adverse 2023	delta	Peak-to-trough
AT	Raiffeisen Bank International AG	13.6%	14.1%	10.5%	9.7%	9.0%	-462	462
AT	Erste Group Bank AG	14.2%	15.4%	11.2%	10.8%	10.2%	-401	401
BE	KBC Group NV	17.6%	19.5%	14.5%	14.0%	14.1%	-351	362
BE	Belfius Banque SA	16.4%	16.7%	14.1%	13.9%	13.7%	-270	270
DE	DZ BANK AG Deutsche Zentral-Genossenschaftsbank	15.1%	15.6%	11.0%	10.6%	10.2%	-489	489
DE	Landesbank Baden-Württemberg	14.8%	14.9%	9.9%	9.2%	8.4%	-643	643
DE	Deutsche Bank AG	13.6%	13.6%	8.3%	8.2%	7.4%	-620	620
DE	COMMERZBANK Aktiengesellschaft	13.2%	13.3%	9.8%	9.1%	8.2%	-502	502
DE	Bayerische Landesbank	15.9%	16.1%	12.2%	11.2%	10.0%	-590	590
DE	Landesbank Hessen-Thüringen Girozentrale	14.4%	15.5%	9.6%	9.0%	8.6%	-585	585
DE	Volkswagen Bank	18.1%	17.5%	17.0%	16.4%	15.5%	-262	262
DK	Danske Bank	18.0%	18.8%	13.4%	12.1%	11.3%	-673	673
DK	Jyske Bank	17.9%	18.7%	12.9%	12.1%	11.6%	-634	634
DK	Nykredit Realkredit	20.2%	21.4%	16.0%	13.8%	13.9%	-631	647
ES	Banco Santander S.A.	11.9%	14.9%	8.6%	9.2%	9.3%	-258	324
ES	Banco Bilbao Vizcaya Argentaria S.A.	11.7%	13.0%	8.8%	8.7%	8.7%	-303	303
ES	Banco de Sabadell S.A.	12.0%	12.7%	7.5%	6.9%	6.5%	-548	548

country	Bank name	actual 2020	baseline 2023	adverse 2021	adverse 2022	adverse 2023	delta	Peak-to-trough
ES	Bankinter, S.A.	12.3%	14.6%	11.2%	11.1%	11.2%	-104	122
FI	OP Osuuskunta	18.9%	18.1%	15.5%	13.7%	12.7%	-619	619
FI	Nordea Bank Abp	17.1%	18.2%	13.7%	13.8%	13.4%	-369	369
FR	BNP Paribas	12.6%	12.9%	9.0%	8.5%	8.2%	-440	440
FR	Groupe Crédit Agricole	16.9%	16.9%	13.0%	11.6%	10.6%	-634	634
FR	Société générale S.A.	13.2%	13.5%	8.5%	8.0%	7.5%	-562	562
FR	Confédération Nationale du Crédit Mutuel	18.6%	19.7%	14.7%	14.0%	13.4%	-525	525
FR	Groupe BPCE	16.0%	16.2%	12.5%	11.1%	10.2%	-580	580
FR	HSBC Continental Europe	12.6%	11.9%	6.9%	7.0%	5.9%	-667	667
FR	La Banque Postale	20.4%	19.4%	13.6%	12.1%	11.2%	-916	916
HU	OTP Bank Nyrt.	14.2%	16.3%	12.4%	11.8%	11.2%	-303	303
IE	Bank of Ireland Group plc	13.4%	13.9%	8.4%	8.2%	8.1%	-532	532
IE	AIB Group plc	15.6%	14.2%	12.8%	10.9%	8.8%	-677	677
IT	UniCredit S.p.A.	15.1%	15.7%	10.3%	9.7%	9.2%	-592	592
IT	Banca Monte dei Paschi di Siena S.p.A.	9.9%	9.3%	5.0%	2.5%	-0.1%	-996	996
IT	Intesa Sanpaolo S.p.A.	14.0%	15.1%	10.1%	9.7%	9.4%	-466	466
IT	Banco BPM S.p.A.	13.2%	14.7%	8.6%	7.4%	7.0%	-622	622
IT	Mediobanca - Banca di Credito Finanziario S.p.A.	14.5%	15.8%	10.6%	10.1%	9.7%	-478	478
NL	ABN AMRO Bank N.V.	17.7%	19.1%	14.4%	13.8%	13.5%	-418	418

country	Bank name	actual 2020	baseline 2023	adverse 2021	adverse 2022	adverse 2023	delta	Peak-to-trough
NL	BNG Bank N.V.	33.4%	33.7%	26.6%	25.3%	23.5%	-989	989
NL	Nederlandse Waterschapsbank N.V.	45.1%	45.7%	38.2%	38.2%	37.8%	-728	728
NL	ING Groep N.V.	15.4%	16.1%	13.0%	11.9%	11.0%	-443	443
NL	Coöperatieve Rabobank U.A.	16.8%	16.4%	12.0%	10.7%	10.0%	-679	679
NO	DNB Bank Group	19.6%	22.3%	16.7%	16.9%	17.1%	-252	294
PL	Powszechna Kasa Oszczednosci Bank Polski SA	16.4%	18.0%	15.1%	15.0%	15.2%	-120	143
PL	Bank Polska Kasa Opieki SA	16.4%	17.7%	15.2%	15.3%	15.4%	-98	121
PT	Banco Comercial Português, SA	12.2%	13.8%	8.2%	8.1%	8.1%	-406	413
PT	Caixa Geral de Depósitos, SA	18.2%	19.4%	15.2%	15.2%	15.3%	-288	300
SE	Skandinaviska Enskilda Banken — group	21.0%	23.7%	16.9%	16.9%	17.4%	-357	411
SE	Swedbank — group	17.5%	20.2%	14.9%	15.0%	15.3%	-217	257
SE	Svenska Handelsbanken — group	20.3%	21.0%	16.6%	16.2%	16.2%	-410	410
SE	SBAB Bank AB – group	13.4%	16.3%	12.1%	12.0%	12.3%	-108	140
SE	Länförsäkringar Bank AB (publ)	16.7%	18.5%	15.4%	16.5%	15.9%	-80	126

Table 9: Transitional leverage ratios (%) and deltas to starting point (bps)

country	Bank name	actual 2020	baseline 2023	adverse 2021	adverse 2022	adverse 2023	delta	Peak-to-trough
AT	Raiffeisen Bank International AG	6.4%	6.8%	5.5%	5.4%	5.1%	-139	139
AT	Erste Group Bank AG	6.7%	7.3%	5.7%	5.5%	5.3%	-141	141
BE	KBC Group NV	6.6%	7.1%	5.7%	5.6%	5.6%	-98	98
BE	Belfius Banque SA	6.9%	7.2%	6.3%	6.2%	6.2%	-69	69
DE	DZ BANK AG Deutsche Zentral-Genossenschaftsbank	5.8%	5.9%	4.8%	4.6%	4.4%	-137	137
DE	Landesbank Baden-Württemberg	5.1%	4.9%	3.7%	3.4%	3.1%	-195	195
DE	Deutsche Bank AG	4.8%	4.8%	3.7%	3.5%	3.2%	-164	164
DE	COMMERZBANK Aktiengesellschaft	4.9%	5.0%	4.3%	4.0%	3.7%	-123	123
DE	Bayerische Landesbank	4.3%	4.4%	3.8%	3.6%	3.4%	-96	96
DE	Landesbank Hessen-Thüringen Girozentrale	4.8%	5.1%	3.6%	3.4%	3.2%	-162	162
DE	Volkswagen Bank	13.7%	13.6%	12.9%	12.5%	11.8%	-190	190
DK	Danske Bank	4.5%	4.6%	3.6%	3.5%	3.3%	-113	113
DK	Jyske Bank	5.2%	5.5%	4.4%	4.3%	4.1%	-111	111
DK	Nykredit Realkredit	4.8%	5.1%	4.2%	4.1%	4.2%	-65	72
ES	Banco Santander S.A.	5.3%	6.4%	4.6%	4.7%	4.6%	-69	77
ES	Banco Bilbao Vizcaya Argentaria S.A.	6.7%	7.2%	5.8%	5.5%	5.4%	-133	133

country	Bank name	actual 2020	baseline 2023	adverse 2021	adverse 2022	adverse 2023	delta	Peak-to-trough
ES	Banco de Sabadell S.A.	5.3%	5.3%	4.1%	3.6%	3.2%	-200	200
ES	Bankinter, S.A.	5.2%	6.2%	4.8%	4.7%	4.8%	-40	47
FI	OP Osuuskunta	7.8%	7.9%	6.9%	6.6%	6.4%	-142	142
FI	Nordea Bank Abp	5.9%	6.3%	5.0%	5.0%	4.9%	-99	99
FR	BNP Paribas	4.9%	5.1%	4.1%	3.9%	3.8%	-111	111
FR	Groupe Crédit Agricole	6.1%	6.2%	5.2%	4.9%	4.5%	-159	159
FR	Société générale S.A.	4.8%	5.1%	3.8%	3.6%	3.4%	-132	132
FR	Confédération Nationale du Crédit Mutuel	7.6%	8.4%	6.9%	6.7%	6.6%	-101	101
FR	Groupe BPCE	5.6%	5.8%	4.6%	4.3%	4.0%	-161	161
FR	HSBC Continental Europe	4.2%	4.1%	2.9%	2.7%	2.3%	-188	188
FR	La Banque Postale	6.1%	6.1%	4.8%	4.3%	4.1%	-207	207
HU	OTP Bank Nyrt.	9.2%	10.2%	8.3%	7.9%	7.5%	-167	167
IE	Bank of Ireland Group plc	7.1%	6.7%	5.6%	5.0%	4.6%	-246	246
IE	AIB Group plc	9.8%	8.0%	8.3%	7.0%	5.6%	-422	422
IT	UniCredit S.p.A.	6.2%	6.1%	4.8%	4.4%	4.2%	-205	205
IT	Banca Monte dei Paschi di Siena S.p.A.	4.4%	3.4%	2.8%	1.5%	0.1%	-426	426
IT	Intesa Sanpaolo S.p.A.	7.2%	7.4%	5.6%	5.4%	5.1%	-204	204
IT	Banco BPM S.p.A.	5.6%	5.7%	4.1%	3.6%	3.1%	-254	254

country	Bank name	actual 2020	baseline 2023	adverse 2021	adverse 2022	adverse 2023	delta	Peak-to-trough
IT	Mediobanca - Banca di Credito Finanziario S.p.A.	9.4%	10.4%	7.3%	7.1%	6.9%	-251	251
NL	ABN AMRO Bank N.V.	5.0%	5.5%	4.4%	4.3%	4.3%	-74	74
NL	BNG Bank N.V.	3.5%	3.5%	3.0%	2.9%	2.8%	-70	70
NL	Nederlandse Waterschapsbank N.V.	2.4%	2.6%	2.4%	2.5%	2.5%	6	6
NL	ING Groep N.V.	4.8%	5.0%	4.4%	4.3%	4.3%	-50	50
NL	Coöperatieve Rabobank U.A.	7.0%	7.1%	6.0%	5.5%	5.3%	-172	172
NO	DNB Bank Group	7.3%	8.3%	6.6%	7.1%	7.3%	5	70
PL	Powszechna Kasa Oszczednosci Bank Polski SA	9.8%	10.7%	9.5%	9.3%	9.2%	-62	62
PL	Bank Polska Kasa Opieki SA	9.4%	9.8%	8.9%	8.9%	8.8%	-60	60
PT	Banco Comercial Português, SA	6.7%	7.6%	5.0%	4.8%	4.7%	-201	201
PT	Caixa Geral de Depósitos, SA	8.7%	9.3%	7.4%	7.4%	7.4%	-129	134
SE	Skandinaviska Enskilda Banken — group	5.1%	5.9%	4.7%	4.8%	5.0%	-13	37
SE	Swedbank — group	5.1%	5.9%	4.6%	4.6%	4.7%	-42	48
SE	Svenska Handelsbanken — group	5.2%	5.4%	4.6%	4.6%	4.6%	-62	62
SE	SBAB Bank AB – group	4.0%	4.8%	3.7%	3.8%	3.9%	-11	30
SE	Länförsäkringar Bank AB (publ)	5.3%	5.9%	4.9%	5.2%	5.0%	-28	37

Table 10: Fully loaded leverage ratio (%) and deltas to starting point (bps)

country	Bank name	actual 2020	baseline 2023	adverse 2021	adverse 2022	adverse 2023	delta	Peak-to-trough
AT	Raiffeisen Bank International AG	6.4%	6.8%	5.5%	5.4%	5.1%	-134	134
AT	Erste Group Bank AG	6.7%	7.3%	5.7%	5.5%	5.3%	-141	141
BE	KBC Group NV	6.4%	7.1%	5.5%	5.5%	5.5%	-89	94
BE	Belfius Banque SA	6.6%	7.2%	6.0%	6.0%	6.0%	-56	60
DE	DZ BANK AG Deutsche Zentral-Genossenschaftsbank	5.6%	6.0%	4.7%	4.5%	4.4%	-123	123
DE	Landesbank Baden-Württemberg	4.8%	4.9%	3.6%	3.3%	3.1%	-172	172
DE	Deutsche Bank AG	4.7%	4.8%	3.4%	3.4%	3.1%	-158	158
DE	COMMERZBANK Aktiengesellschaft	4.9%	5.0%	4.0%	3.8%	3.6%	-128	128
DE	Bayerische Landesbank	4.3%	4.4%	3.8%	3.6%	3.4%	-96	96
DE	Landesbank Hessen-Thüringen Girozentrale	4.6%	5.0%	3.3%	3.2%	3.0%	-160	160
DE	Volkswagen Bank	13.7%	13.6%	12.9%	12.5%	11.8%	-190	190
DK	Danske Bank	4.4%	4.5%	3.6%	3.4%	3.3%	-113	113
DK	Jyske Bank	5.2%	5.5%	4.4%	4.3%	4.1%	-107	107
DK	Nykredit Realkredit	4.8%	5.1%	4.2%	4.1%	4.2%	-65	72
ES	Banco Santander S.A.	5.1%	6.4%	4.0%	4.2%	4.4%	-73	117
ES	Banco Bilbao Vizcaya Argentaria S.A.	6.5%	7.2%	5.2%	5.2%	5.2%	-126	131
ES	Banco de Sabadell S.A.	5.1%	5.3%	3.4%	3.2%	3.1%	-201	201
ES	Bankinter, S.A.	5.2%	6.2%	4.8%	4.7%	4.8%	-40	47
FI	OP Osuuskunta	7.8%	7.9%	6.9%	6.6%	6.4%	-142	142

country	Bank name	actual 2020	baseline 2023	adverse 2021	adverse 2022	adverse 2023	delta	Peak-to-trough
FI	Nordea Bank Abp	5.9%	6.3%	5.0%	5.0%	4.9%	-99	99
FR	BNP Paribas	4.8%	5.0%	3.8%	3.8%	3.7%	-109	109
FR	Groupe Crédit Agricole	5.9%	6.1%	4.9%	4.6%	4.3%	-160	160
FR	Société générale S.A.	4.7%	5.0%	3.5%	3.5%	3.4%	-131	131
FR	Confédération Nationale du Crédit Mutuel	7.5%	8.3%	6.7%	6.6%	6.5%	-99	99
FR	Groupe BPCE	5.6%	5.8%	4.6%	4.3%	4.0%	-160	160
FR	HSBC Continental Europe	4.2%	4.1%	2.9%	2.7%	2.3%	-188	188
FR	La Banque Postale	6.1%	6.1%	4.8%	4.3%	4.1%	-207	207
HU	OTP Bank Nyrt.	8.3%	10.2%	7.6%	7.6%	7.4%	-90	90
IE	Bank of Ireland Group plc	6.4%	6.7%	4.4%	4.3%	4.3%	-212	212
IE	AIB Group plc	8.3%	7.9%	7.2%	6.3%	5.3%	-301	301
IT	UniCredit S.p.A.	5.7%	5.9%	4.1%	3.9%	3.8%	-185	185
IT	Banca Monte dei Paschi di Siena S.p.A.	3.6%	3.4%	1.9%	0.9%	0.0%	-363	363
IT	Intesa Sanpaolo S.p.A.	6.9%	7.4%	5.4%	5.2%	5.2%	-178	178
IT	Banco BPM S.p.A.	5.1%	5.7%	3.6%	3.3%	3.1%	-202	202
IT	Mediobanca - Banca di Credito Finanziario S.p.A.	7.6%	8.5%	5.7%	5.5%	5.4%	-222	222
NL	ABN AMRO Bank N.V.	5.0%	5.5%	4.4%	4.3%	4.3%	-74	74
NL	BNG Bank N.V.	3.5%	3.5%	3.0%	2.9%	2.8%	-70	70
NL	Nederlandse Waterschapsbank N.V.	2.4%	2.6%	2.4%	2.5%	2.5%	6	6

country	Bank name	actual 2020	baseline 2023	adverse 2021	adverse 2022	adverse 2023	delta	Peak-to-trough
NL	ING Groep N.V.	4.7%	5.0%	4.3%	4.3%	4.3%	-41	41
NL	Coöperatieve Rabobank U.A.	7.0%	7.1%	5.8%	5.5%	5.2%	-176	176
NO	DNB Bank Group	7.3%	8.3%	6.6%	7.1%	7.3%	5	70
PL	Powszechna Kasa Oszczednosci Bank Polski SA	9.4%	10.7%	8.9%	9.0%	9.1%	-33	56
PL	Bank Polska Kasa Opieki SA	9.0%	9.8%	8.5%	8.7%	8.8%	-18	50
PT	Banco Comercial Português, SA	6.7%	7.6%	4.6%	4.5%	4.6%	-210	215
PT	Caixa Geral de Depósitos, SA	8.7%	9.3%	7.4%	7.4%	7.4%	-129	134
SE	Skandinaviska Enskilda Banken — group	5.1%	5.9%	4.7%	4.8%	5.0%	-13	37
SE	Swedbank — group	5.1%	5.9%	4.6%	4.6%	4.7%	-42	48
SE	Svenska Handelsbanken — group	5.2%	5.4%	4.6%	4.6%	4.6%	-62	62
SE	SBAB Bank AB – group	4.0%	4.8%	3.7%	3.8%	3.9%	-11	30
SE	Länförsäkringar Bank AB (publ)	5.3%	5.9%	4.9%	5.2%	5.0%	-28	37

EUROPEAN BANKING AUTHORITY

Tour Europlaza, 20 avenue André Prothin CS 30154
92927 Paris La Défense CEDEX, FRANCE

Tel. +33 1 86 52 70 00

E-mail: info@eba.europa.eu

https://eba.europa.eu