

# 2018 EU-WIDE STRESS TEST

## RESULTS

2 November 2018



**EBA**

EUROPEAN  
BANKING  
AUTHORITY

# Contents

---

<b>List of figures, tables and boxes</b>	<b>2</b>
<b>1. Executive Summary</b>	<b>8</b>
<b>2. Key aspects of the 2018 EU-wide stress test</b>	<b>11</b>
2.1 General aspects	11
2.2 IFRS 9 implementation	12
<b>3. Impact of the stress test on capital ratios</b>	<b>17</b>
3.1 Impact on CET1 capital ratios	17
3.2 Impact on leverage ratio	24
<b>4. Main drivers of the impact</b>	<b>25</b>
4.1 Impact on profitability	26
4.1.1 Net Interest Income	28
4.1.2 Credit risk losses	31
4.1.3 Market risk losses, including CCR and CVA	36
4.1.4 Conduct risk and other operational risk	39
4.1.5 Non-interest income and expenses	41
4.2 Impact on risk exposure amount	44
<b>5. Capital measures between January 2018 and June 2018</b>	<b>46</b>
<b>Annex I: List of banks in the sample. Use of IFRS 9 transitional arrangements</b>	<b>47</b>
<b>Annex II: Capital ratios for individual banks</b>	<b>49</b>

## List of figures, tables and boxes

---

Table 1: Summary of the key metrics and results of the exercise .....	9
Figure 1: Aggregate CET1 capital ratio (%): actual and restated starting points – fully loaded and transitional .....	13
Box 1: IFRS 9 transitional arrangements .....	14
Figure 2: IFRS 9 first implementation impact on impairments / CET 1 – by regulatory approach (bn EUR) (1). Credit risk REA and IFRS 9 first implementation impairments by regulatory approach (%) (2). .....	15
Figure 3: Effect of IFRS 9 on impairments - performing vs non-performing portfolios (bn EUR) ....	16
Figure 4: Evolution of aggregate transitional CET1 capital ratio (%) (1) and change from starting point 2017 restated (bps) (2) .....	18
Figure 5: Evolution of aggregate fully loaded CET1 capital ratio (%) (1) and change from starting point 2017 restated (bps) (2) .....	18
Figure 6: Evolution of numerator and denominator of aggregate fully loaded CET1 capital ratio in the adverse scenario (2017 restated = 100) .....	19
Figure 7: Comparison of aggregate transitional and fully loaded CET1 capital ratio by jurisdiction in alphabetical order (%) .....	20
Figure 8: CET1 capital ratio by bank in alphabetical order at the starting point and as of end-2020 under the adverse scenario (%) .....	21
Figure 9: Impact on CET1 capital ratio from 2017 to 2020 under the adverse scenario by bank, ordered by size of the fully loaded impact.....	23
Figure 10: Evolution of transitional aggregate leverage ratio (%) (1) and its dispersion – 5th and 95th percentiles, interquartile range and median in 2017 actual and in the adverse scenario (%) (2) .....	24
Figure 11: Contribution of main drivers to the change in CET1 capital ratio from 2017 to 2020 in the adverse scenario (waterfall) .....	26
Figure 12: Evolution of EU aggregate profit and loss account and absolute change in capital in the adverse scenario (EUR bn) .....	27
Figure 13: Cumulative contribution to capital of the main sources of income over 2018-2020 adverse, compared to the hypothetical unstressed contribution .....	28
Figure 14: Evolution of aggregate NII (EUR bn).....	29
Figure 15: Cumulative contribution of NII to CET1 capital ratio under adverse scenario compared to unstressed contribution, over 2017-2020 (1) Dispersion of the contribution to CET1 capital ratio of cumulative interest income as of end 2020 under the adverse scenario by banks in the sample (2).....	30
Box 2: Treatment of NPEs under the NII methodology.....	30

---

Figure 16: Dispersion of the contribution to CET1 capital ratio of interest income from NPEs as of end 2020 under the adverse scenario.....	31
Figure 17: Evolution of absolute credit losses (EUR bn) .....	32
Figure 18: Share of total credit risk exposures (1) and of 2018-2020 new credit risk losses (2) in the adverse scenario for selected countries of the counterparty (%)......	32
Figure 19: Contribution to cumulative 2020 credit losses in the adverse scenario – by regulatory exposure class (%) – Total (1), IRB (2), STA (3).....	33
Figure 20: Cumulative credit losses as a percentage of restated 2017 exposure in the adverse scenario, end 2020 – for selected countries of the counterparty and by regulatory exposure class (%) .....	34
Figure 21: Coverage of defaulted exposures as a percentage of end 2020 adverse scenario – Total, for selected countries of the counterparty and by regulatory exposure class (%).....	35
Figure 22: Share of exposures per stage (%) (1) and coverage ratio per stage (2) – Evolution over the projection horizon in the adverse scenario .....	36
Figure 23: Contribution of different market risk components to market risk losses under the adverse scenario in 2018 (bps) (1) and distribution among the sample (5 <sup>th</sup> , 25 <sup>th</sup> , 50 <sup>th</sup> , 75 <sup>th</sup> , 95 <sup>th</sup> percentiles) of the total impact coming from market risk in the 2018 adverse scenario (bps) (2) .....	37
Box 3: Liquidity and model uncertainty shock on Level 2 and Level 3 instruments .....	37
Figure 24: Impact in CET1 capital ratio in the 2018 adverse scenario of the model uncertainty and liquidity shock by bank (bps).....	38
Figure 25: Evolution of market risk P&L impact (EUR bn).....	39
Box 4: Sovereign exposure .....	39
Figure 26: 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) .....	40
Box 5: Comparison between the projected material conduct risk losses and the floor for material conduct risk losses in the adverse scenario .....	40
Figure 27: Comparison between the projected material conduct risk losses and the floor for material conduct risk losses under the adverse scenario (EUR bn and bps) .....	41
Figure 28: Evolution of NFCI and dividend income (EUR bn) (1), and cumulative impact to capital of NFCI (2).....	42
Box 6: One-off adjustments .....	42
Figure 29: Evolution of administrative expenses, other operating expenses, other provisions and depreciation (EUR bn) .....	43
Box 7: Maximum Distributable Amount .....	44
Figure 30: Evolution of risk exposure amount by risk type under the adverse scenario (2017 actual = 100).....	45
Figure 31: Capital measures taken by the banks during the first half of 2018 (EUR bn) .....	46

Table 2: Banks in the sample of the exercise. Use of IFRS 9 transitional arrangements .....	47
Table 3: Transitional CET1 capital ratio ratios (%) and deltas to starting point (bps).....	49
Table 4: Fully loaded CET1 capital ratios (%) and deltas to starting point (bps).....	51
Table 5: Transitional leverage ratios (%) and deltas to starting point (bps).....	54
Table 6: Fully loaded leverage ratio (%) and deltas to starting point (bps) .....	56

# Abbreviations

---

<b>A-IRB</b>	Advanced internal ratings-based approach
<b>AVA</b>	Additional Valuation Adjustment
<b>bn</b>	Billion
<b>bps</b>	Basis points
<b>CAs</b>	Competent authorities
<b>CCR</b>	Counterparty credit risk
<b>CET1</b>	Common equity tier 1
<b>CRD</b>	Capital requirements directive
<b>CRR</b>	Capital requirements regulation
<b>CVA</b>	Credit valuation adjustment
<b>DTAs</b>	Deferred tax assets
<b>ECB</b>	European Central Bank
<b>ECL</b>	Expected credit losses
<b>EA</b>	Euro Area
<b>EEA</b>	European Economic Area
<b>EIR</b>	Effective interest rate
<b>ESRB</b>	European Systemic Risk Board
<b>EU</b>	European Union
<b>F-IRB</b>	Foundation internal ratings-based approach
<b>FVPL</b>	Fair value through profit and loss
<b>FVOCI</b>	Fair value through other comprehensive income
<b>GDP</b>	Gross domestic product
<b>HfT</b>	Held with a trading intent
<b>IAS 39</b>	International Accounting Standard 39— Financial Instruments: Recognition and Measurement
<b>IASB</b>	International Accounting Standard Board
<b>IFRS 9</b>	International Financial Reporting Standard 9— Financial Instruments
<b>IRB</b>	Internal ratings-based approach
<b>ITS</b>	Implementing technical standard
<b>L2</b>	Level 2
<b>L3</b>	Level 3

<b>MDA</b>	Maximum distributable amount
<b>N/A</b>	Not applicable
<b>NFCI</b>	Net fees and commissions income
<b>NII</b>	Net interest income
<b>NPEs</b>	Non-performing exposures
<b>NPLs</b>	Non-performing loans
<b>NTI</b>	Net trading income
<b>OCI</b>	Other comprehensive income
<b>PD</b>	Probability of default
<b>P&amp;L</b>	Profit and loss
<b>pp</b>	Percentage points
<b>REA</b>	Risk exposure amount
<b>SREP</b>	Supervisory review and evaluation process
<b>SSM</b>	Single Supervisory Mechanism
<b>STA</b>	Standardised approach
<b>YE</b>	Year end

## 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 EBA, which were submitted and confirmed by the competent authorities. The cut-off date for the data shown in this report is 31 October 2018 – 10:00 CET.

# 1. Executive Summary

---

The EU-wide stress test 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 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 2018-EU wide stress test exercise is designed to inform the Supervisory Review and Evaluation Process (SREP) carried out by Competent Authorities (CAs). In addition, the disclosure of granular data on a bank-by-bank level contributes to market discipline and serves as a benchmarking tool.

The exercise is based on common macroeconomic baseline and adverse scenarios covering a three-year horizon taking the end-2017 data as the starting point. The adverse scenario identifies a set of systemic risks that may pose a threat to the financial stability of the EU banking sector and trigger specific shocks, including a growth in gross domestic product (GDP) in the EU of -1.2%, -2.2% and 0.7% as of 2018, 2019 and 2020 respectively, with a deviation of -8.3% from its baseline level as of end-2020.

The scenario is hypothetical and not designed to capture every possible confluence of events. However, it does serve as an analytical tool to understand what happens to banks' balance sheets if an economic downturn materialises, regardless of the specific triggering shock. Since the common EU scenario may have different effects in different countries, banks' results should be read in conjunction with the relevant scenario.

The exercise covers a sample of 48 banks in 15 countries in the European Union (EU) and European Economic Area (EEA) at the highest level of consolidation.

One of the main features of the 2018 exercise is the implementation of the International Financial Reporting Standard (IFRS) 9. Banks were required to provide the starting point according to their actual figures at the end of 2017 and their IFRS 9 restated figures. The negative impact of IFRS 9 first implementation on banks' aggregate common equity tier 1 (CET1) capital ratio is 10 basis points (bps)<sup>1</sup> on transitional basis, 20 bps on fully loaded basis.<sup>2</sup> The weighted average CET1 capital ratio moves from 14.5% transitional and 14.2% fully loaded as of end of 2017, to 14.4% transitional and 14% fully loaded considering the IFRS 9 restated data.

The aggregate capital ratio at the starting point of the 2018 stress test is notably above the aggregate capital ratio reported by banks at the beginning of previous EU-wide exercises, an

---

<sup>1</sup> All impact figures in bps shown in the text of this report are rounded to the nearest 5bps. Impact figures in charts are rounded to the nearest units.

<sup>2</sup> This report provides transitional and fully loaded solvency ratios, with the latter being computed considering the full implementation of the Capital Requirements Regulation (CRR), the Capital Requirements Directive (CRD) IV and IFRS 9.

evolution that reflects a continuous and significant strengthening of the capital position by the major EU banks since the end of 2010.

The aggregate impact of the adverse scenario is measured as the difference between the starting CET1 ratios under the IFRS 9 restated positions and the CET1 ratios projected at the end of the stressed period. On the basis of the transitional capital requirements, the aggregate reduction is 410 bps, whereas on a fully loaded basis, the CET1 reduction is 395 bps. As of end 2020, under the adverse scenario, banks' aggregate CET1 capital ratio is 10.3% transitional and 10.1% fully loaded.

The aggregate leverage ratio decreases from 5.4% to 4.4% on a transitional basis, 5.1% to 4.2% on a fully loaded basis.

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

Metric	Starting 2017	Starting 2017 restated	Adverse 2020	Delta adverse 2020 - 2017	Delta adverse 2020 - 2017 restated
<b>Transitional CET1 capital ratio</b>	14.5%	14.4%	10.3%	-419 bps	-410 bps
<b>Fully loaded CET1 capital ratio</b>	14.2%	14.0%	10.1%	-416 bps	-395 bps
<b>Transitional leverage ratio</b>	5.4%	5.3%	4.4%	-98 bps	-94 bps
<b>Fully loaded leverage ratio</b>	5.1%	5.1%	4.2%	-96 bps	-88 bps
<b>Transitional CET1 capital</b>	1,223 bn	1,212 bn	977 bn	-246 bn	-236 bn
<b>Transitional total REA</b>	8,431 bn	8,409 bn	9,464 bn	1,033 bn	1,055 bn
<b>Fully loaded CET1 capital</b>	1,199 bn	1,176 bn	950 bn	-248 bn	-226 bn
<b>Fully loaded total REA</b>	8,431 bn	8,404 bn	9,453 bn	1,022 bn	1,049 bn

The stress test impact is mostly driven by credit risk losses of 358bn EUR, which have an impact of -425 bps on CET1 capital ratio. Aggregate market risk losses<sup>3</sup>, including counterparty credit risk (CCR), amount to 94bn EUR, and operational risk losses to 82bn EUR, driving an impact on capital of -110 bps and -100 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-

<sup>3</sup> Following the methodology, market risk losses are fully recognised in the first year of the stress test horizon (i.e. in 2018). In 2019 and 2020 the NTI partially recovers, and compensates part of the 2018 market risk losses (see section 4.1.3 of the report).

2020 leads to a lower capital formation of 150 bps and 80 bps, compared to the hypothetical contribution of unstressed starting point values.<sup>4</sup>

The impact of the stress test on CET1 capital ratio varies significantly across banks, ranging from a minimum decrease of 30 bps fully loaded compared to the restated 2017 data to a maximum decrease of 770 bps. 25% of the banks report a decrease above 525 bps with another 25% of banks report a decrease below 270 bps. 25 banks applied distribution restrictions following the breach of the trigger of the combined buffer requirement in any of the three years of the scenario. Following the maximum distributable amount (MDA) adjustments, these banks decrease their distributions by 52bn EUR, with a positive impact on capital of 60bps.

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.

This report provides an overview of the key aggregate results and a description of the main drivers of the capital impact. Annex II includes a bank-by-bank summary of the results. The methodology and scenarios were published in January 2018 and can be consulted separately on the EBA website.<sup>5</sup>

---

<sup>4</sup> Keeping the unstressed starting point values constant over the three-year horizon of the stress test.

<sup>5</sup> <http://www.eba.europa.eu/-/eba-launches-2018-eu-wide-stress-test-exercise>

## 2. Key aspects of the 2018 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.

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. Supervisors should consider the individual results together with managerial decisions and capital actions put forward by the banks that may mitigate the impact of the stress in order to understand their resilience and capital position and assess the potential need to set a Pillar 2 capital guidance on top of the minimum capital requirements.

The publication of the results is accompanied by the disclosure of extensive and detailed bank-by-bank actual and projected data to promote market discipline and provide information on banks' exposures.

The exercise is constrained bottom-up. While banks provide the data and apply their own models to project the results, they are required to adjust them based on the definitions, constraints, caps and floors defined in the methodology. This is necessary in order to ensure a minimum degree of conservatism, consistency and comparability of the projections and a level playing field. In addition, CAs carried out an extensive quality assurance process for ensuring the reliability and robustness of the results.

The assumption of a static balance sheet means 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. In particular, no capital measures or managerial decisions completed after the starting point, 31 December 2017, are considered. However, the impact of the static balance sheet assumption – as well as other methodological aspects – should be carefully taken in consideration by supervisors in evaluating the results of the stress test during the SREP.

The EU-wide stress test is based on a general macroeconomic downturn scenario over a three-year horizon. The scenario is hypothetical and not designed to capture every possible confluence of events. However, it does serve as an analytical tool to understand what happens to banks' balance sheets if an economic downturn materialises, regardless of the specific triggering shock.

The 2018 exercise is conducted on a sample of 48 banks from 15 EU and EEA countries, including 33 banks from euro area countries and 15 banks from Denmark, Hungary, Norway, Poland, Sweden and the UK. The participating banks are listed in Annex I.

The main changes to the 2018 methodology are related to the credit risk framework, which was fully reviewed in order to implement IFRS 9. The NII methodology was also updated in order to align it with IFRS 9. In addition, the methodology applicable to market risk was revised and banks were asked to apply a full revaluation to all financial instruments measured at fair value under IFRS 9 based on a single adverse scenario. Banks were also asked to follow specific provisions and constraints to stress level 2 (L2) and level 3 (L3) financial instruments, in order to take into account liquidity and modelling uncertainty related to those instruments. Finally, the methodology now includes specific provisions for the calculation of the MDA of profits and for the computation of deferred tax assets (DTAs).

More details on the methodology, the scenario as well as the sample of the stress test can be found on the EBA website.<sup>6</sup>

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 scenario was prepared by the European Central Bank (ECB), while the adverse scenario by the European Systemic Risk Board (ESRB) in collaboration with the ECB and EBA. Competent authorities and – for the Single Supervisory Mechanism (SSM) – the ECB in close 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. Finally, the supervisory reaction function based on the results of the exercise rests with the national competent authorities and the ECB-Banking Supervision for banks in the euro area.

## 2.2 IFRS 9 implementation

IFRS 9, which replaces IAS 39, was published by the International Accounting Standard Board (IASB) in July 2014 and transposed in the EU in November 2016.<sup>7</sup> While the Standard introduced revised provisions on classification and measurement of financial instruments, impairment and hedge accounting, the main change is the new expected credit losses (ECL) impairment model, which moves away from the previously ‘incurred loss’ model in IAS 39. The new ECL impairment model drives the main amendments to the 2018 stress test methodology and is the focus of this section.<sup>8</sup>

<sup>6</sup> <http://www.eba.europa.eu/risk-analysis-and-data/eu-wide-stress-testing/2018>

<sup>7</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R2067&from=en>

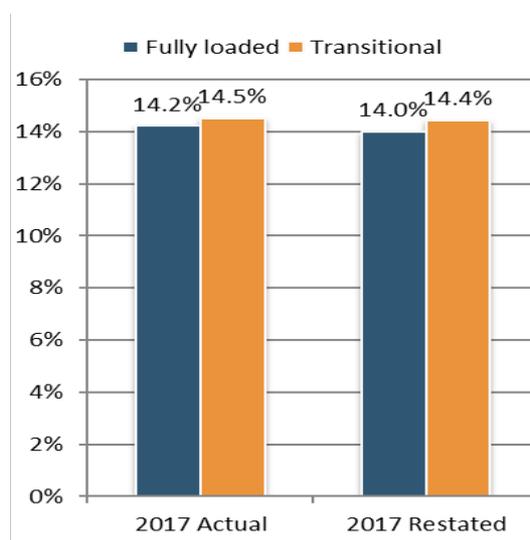
<sup>8</sup> On classification and measurement, the Standard introduces three categories for financial assets (fair value through profit and loss (FVPL), fair value through other comprehensive income (FVOCI) and amortised cost) and the classification is based on banks’ business models for managing the financial assets and their contractual cash flow characteristics. On hedge accounting, IFRS 9 provides the option to continue applying the hedge accounting requirements of IAS 39, which, according to the EBA Report on results from the second EBA impact assessment of IFRS 9, was the option most banks were planning to apply.

The IFRS 9 ECL model is forward-looking and requires banks to update the amount of ECL recognised at each reporting date not only when the evidence of a loss is apparent, but also taking into account all past, present and forecasted available information. Depending on their credit quality, financial assets are classified in three stages: stage 1 and stage 2 relate to performing exposures, and stage 3 relates to credit impaired / non-performing exposures.<sup>9</sup> While for stage 1 exposures 12-month ECL are recognised, for stage 2 and stage 3 exposures impairments are based on lifetime ECL.

Since the EU regulation includes transitional arrangements as part of the introduction of IFRS 9 (see Box 1), this report provides both transitional and fully loaded solvency ratios, with the latter being computed considering the full implementation of the Capital Requirements Regulation (CRR), the Capital Requirements Directive (CRD) IV and IFRS 9. While the fully loaded ratios are more comparable across banks, the transitional ones are the starting point for supervisory decisions on Pillar 2 guidance.

Figure 1 describes the impact on CET1 capital ratio, both transitional and fully loaded, of the restatement of banks' financial statements from IAS 39 to IFRS 9, as implemented in the stress test methodology.

Figure 1: Aggregate CET1 capital ratio (%): actual and restated starting points – fully loaded and transitional



<sup>9</sup> The EBA transparency templates distinguish between performing and non-performing exposures. Performing exposures include stage 1 and stage 2 financial assets and non-performing exposures include stage 3 financial assets.

### Box 1: IFRS 9 transitional arrangements

In order to phase in the impact on capital of the introduction of IFRS 9, the CRR was amended to allow for a transitional recognition of this impact, permitting banks to add back to their capital position a transitional amount during 5 years after its first implementation.<sup>10</sup> The 'IFRS 9 transitional arrangements' apply to ECL impairments that increased due to the implementation of IFRS 9, and include:

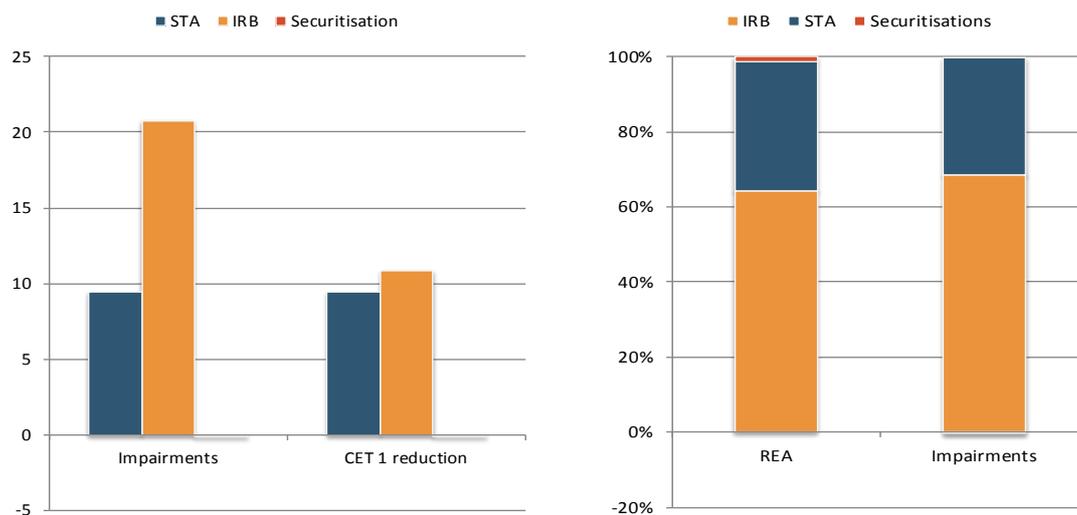
- A 'static' component, where IFRS 9 provisions as of 1 January 2018 are compared with IAS 39 provisions as of 31 December 2017.
- A 'dynamic' component, where IFRS 9 stage 1 and stage 2 provisions at each reporting date are compared with IFRS 9 stage 1 and stage 2 provisions as of 1 January 2018. This means that for stage 3 financial assets only the static component applies.
- A portion of the difference for the static and dynamic component is added back over the transitional period (95%, 85%, 70%, 50% and 25%) in CET1.
- Banks can choose to apply the IFRS 9 transitional arrangements or not, and for either the static or both the static and dynamic components. They had to inform their CAs of their decision and on the chosen option.

Of the 48 participating banks in the 2018 EU-wide stress test, 15 banks applied both the static and dynamic components and 1 bank the static component only (see Table 2 in Annex I). This is important when comparing the impact on transitional CET1 of banks applying IFRS 9 transitional arrangements with banks not applying them.

Figure 2 shows the volume of impairments reported by banks following the restatement of data according to IFRS 9, their impact on CET1 capital, and the risk exposure amount (REA) by credit risk regulatory approach. The distribution of new impairments between the internal ratings-based approach (IRB) and the standardised approach (STA) portfolios reported following the IFRS 9 first implementation is similar to the distribution of credit risk REA volumes for the same portfolios, with slightly higher relative impairments under IRB models. Nevertheless, the relative impact on capital of the new IRB impairments is much lower than the impact on capital of the new STA impairments. This is because the new IRB impairments drive the IRB ECL shortfall down by more than 50% compared to the pre-IFRS 9 shortfall.

<sup>10</sup> Amendment published in the Official Journal of the European Union on 27 December 2017.

Figure 2: IFRS 9 first implementation impact on impairments / CET 1 – by regulatory approach (bn EUR) (1). Credit risk REA and IFRS 9 first implementation impairments by regulatory approach (%) (2).



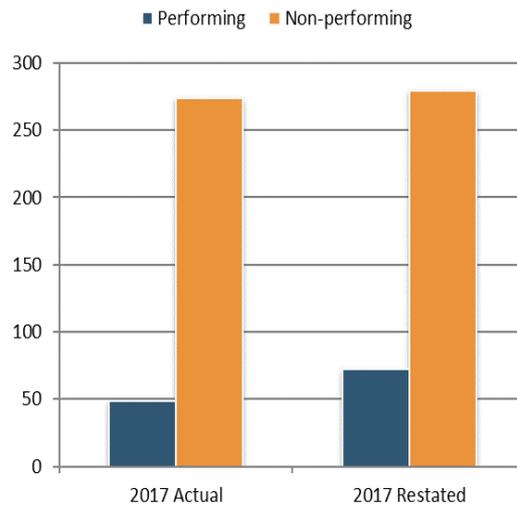
While the classification of financial assets in stages according to IFRS 9 may leave some room for judgement, in the stress test exercise some common assumptions were implemented in order to ensure consistency and a level playing field. In particular, the methodology defines a threefold increase in the probability of default (PD) as a common trigger for classification in stage 2; exposures that are non-performing according to the EBA Implementing Technical Standard (ITS) on forbearance and non-performing exposures (NPEs)<sup>11</sup> shall be classified as stage 3. The dynamics of stage 3 exposures over the three-year horizon of the adverse scenario is thus a good proxy to understand the evolution of NPEs.

Figure 3 shows that the aggregate impairments for performing exposures increased by 50%, 24bn EUR, while the impairments for NPEs increased only by 2%, 6bn EUR, following the IFRS 9 implementation. In particular, lifetime ECL for stage 2 exposures led to a material increase in impairments in the end-2017 restated figures compared to the actual figures. For stage 3 exposures, while the increase of impairments is less material at aggregate level, as the provisioning approach under IAS 39 is similar to the lifetime ECL approach for stage 3 under IFRS 9, there are differences across banks.

11

<https://www.eba.europa.eu/documents/10180/449824/EBA-ITS-2013-03+Final+draft+ITS+on+Forbearance+and+Non-performing+exposures.pdf>

Figure 3: Effect of IFRS 9 on impairments - performing vs non-performing portfolios (bn EUR)



## 3. Impact of the stress test on capital ratios

---

### 3.1 Impact on CET1 capital ratios

The 48 banks in the 2018 stress test sample reported a 14.5% weighted average transitional CET1 capital ratio as of December 2017, 14.4% considering the IFRS 9 restated data. The 2018 aggregate capital ratio at the starting point is above the aggregate ratios 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 since the end of 2010.

The impact of IFRS 9 first implementation on banks' aggregate CET1 capital ratio is -10 bps on a transitional basis<sup>12</sup>, -20 bps on fully loaded basis. The weighted average CET1 capital ratio moves from 14.5% transitional and 14.2% fully loaded as of end of 2017, to 14.4% and 14% respectively considering the IFRS 9 restated data at the same date.

The impact of the stress test on banks' capital ratios is quantified using the 2017 restated data in order to disentangle it from the impact of the IFRS 9 first implementation. Under the adverse scenario banks report an aggregate decrease of their transitional CET1 capital ratio of 410 bps in 2020 compared to the starting point restated data, 395 bps on a fully loaded basis (see Figure 4 and Figure 5). Banks' projections under the adverse scenario reflect a deviation of -505 bps compared to the baseline as of end 2020 for the same ratio on a transitional basis, -520 bps fully loaded.

---

<sup>12</sup> Changes to transitional CET1 capital ratio driven by -11bn CET1 capital, -22bn EUR REA; Changes to fully loaded CET1 capital ratio driven by -22bn EUR CET1 capital, -28bn EUR REA.

Figure 4: Evolution of aggregate transitional CET1 capital ratio (%) (1) and change from starting point 2017 restated (bps) (2)

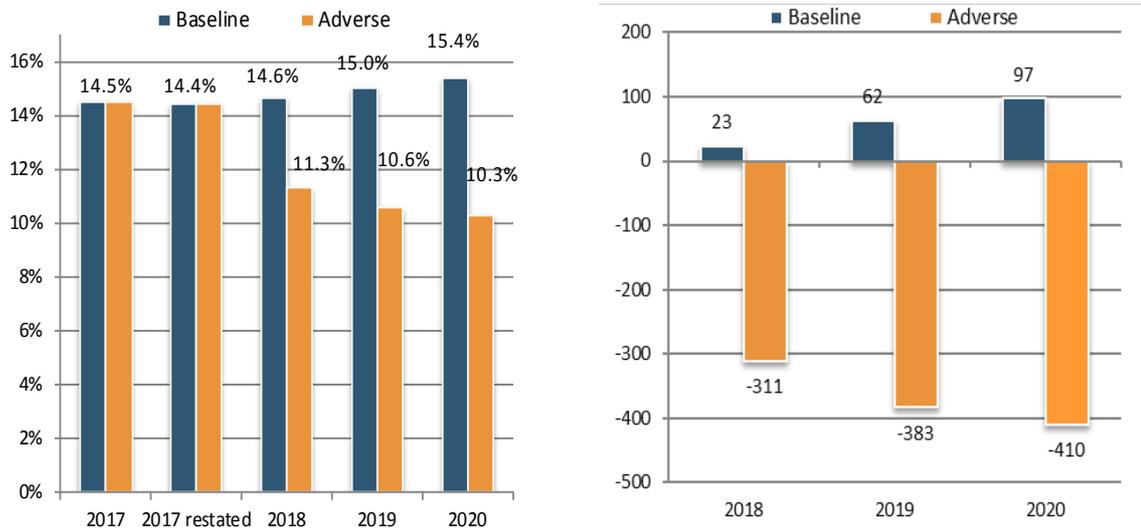
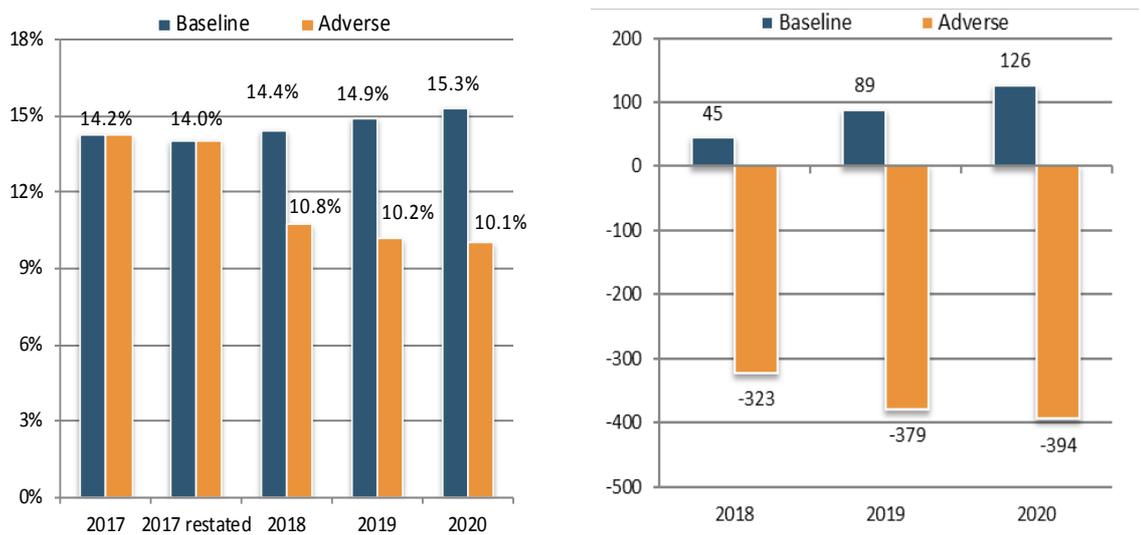


Figure 5: Evolution of aggregate fully loaded CET1 capital ratio (%) (1) and change from starting point 2017 restated (bps) (2)



The decrease in the CET1 capital ratio is driven by a decrease in the numerator of the ratio, i.e. a capital depletion, and an increase in the denominator, i.e. an increase in the volume of total REA.

The impact of the first implementation of IFRS 9 on the numerator of the ratio is -11bn EUR (-1%) on a transitional basis, -22bn EUR (-2%) on a fully loaded basis. In addition, under the adverse scenario, the capital depletion as of end 2020 is 236bn EUR and 226bn EUR on a transitional and fully loaded basis respectively (-19% compared to the 2017 restated data, as shown in Figure 6). Both the transitional and fully loaded total volume of REA increases by 1050bn EUR (+12% compared to the starting point restated).

Figure 6: Evolution of numerator and denominator of aggregate fully loaded CET1 capital ratio in the adverse scenario (2017 restated = 100)

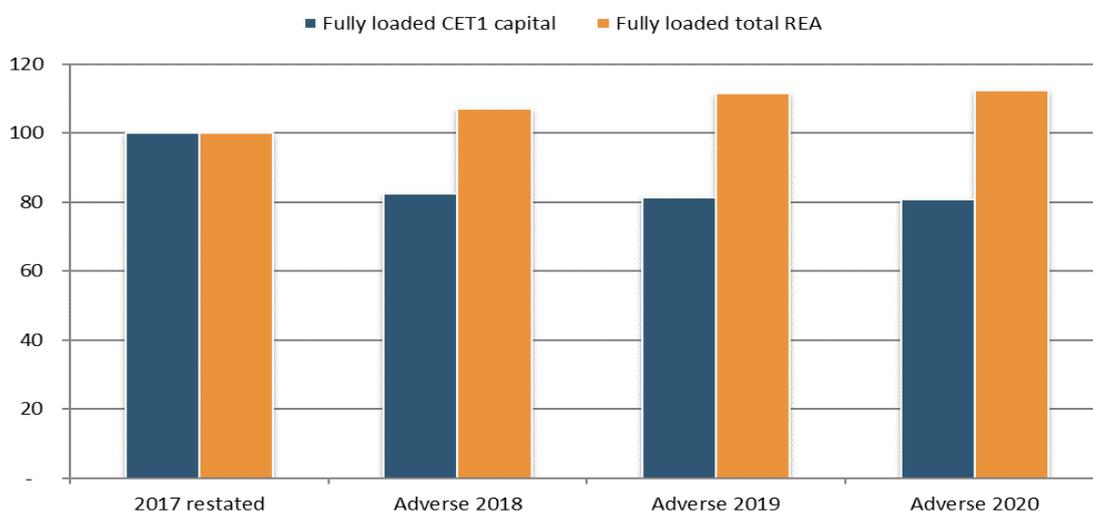


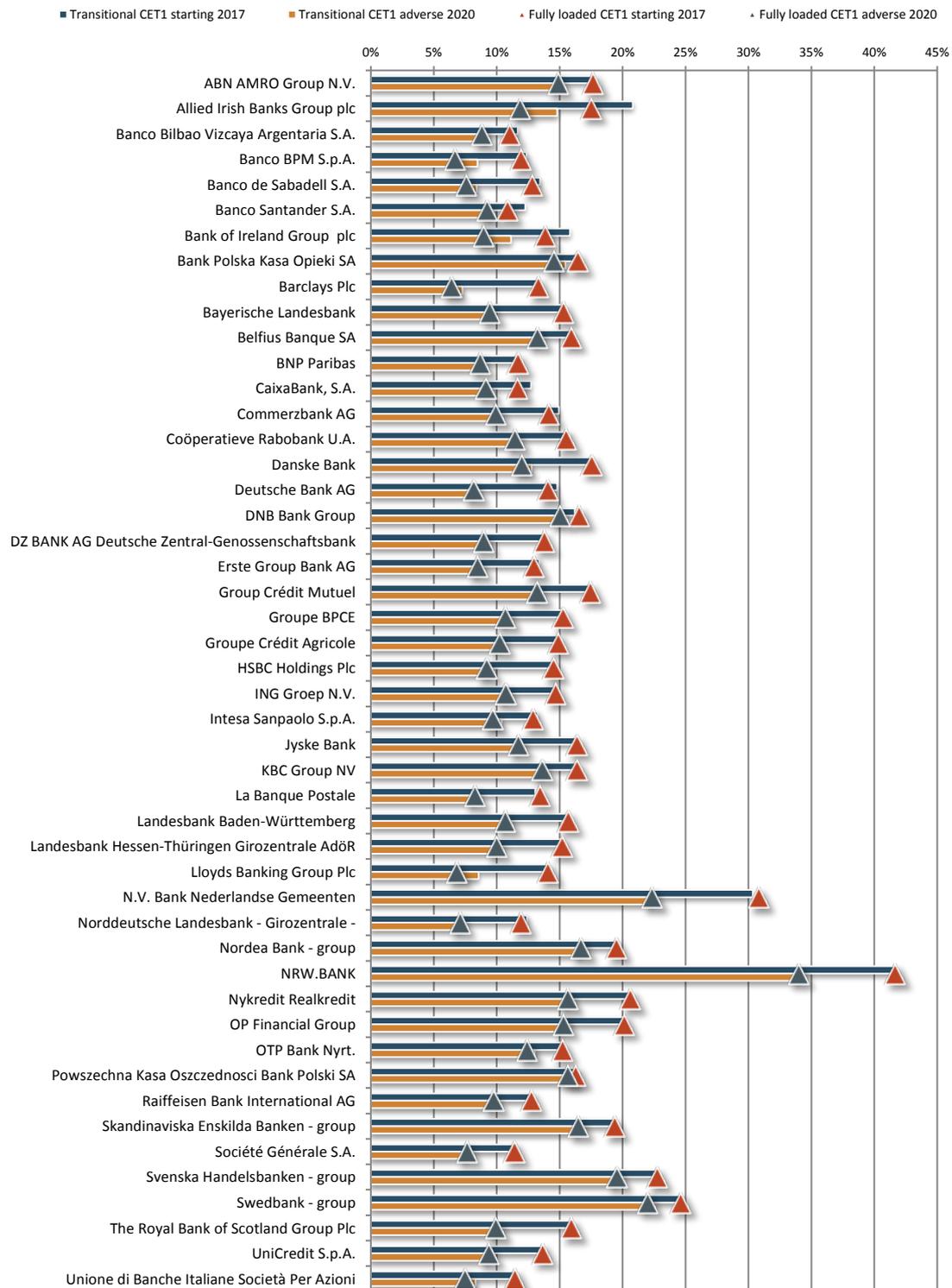
Figure 7 compares the aggregate weighted average CET1 capital ratio as of end-2020 to the 2017 restated starting point both on transitional and fully loaded basis by jurisdiction.

Figure 7: Comparison of aggregate transitional and fully loaded CET1 capital ratio by jurisdiction in alphabetical order (%)



Figure 8 shows bank-by-bank CET1 capital ratios at the starting and end point of the exercise. The capital ratios showed at the starting point in this figure are not restated but actual, in order to reflect the banks' regulatory capital ratios as of end-2017. Figure 8 shows a large dispersion of banks' capital position, both at the starting and at the end-point. CET1 capital ratios vary from 11.6% to 41.7% on a transitional basis (10.8% to 41.6% on a fully loaded basis) at the end of 2017 (non-restated data) and from 7.1% to 34% on a transitional basis (6.4% to 34% on a fully loaded basis) at the end of 2020 under the adverse scenario. Table 3 and Table 4 in Annex II include the transitional and fully loaded CET1 capital ratios projected by the banks in each year of the adverse scenario, and show that not all banks report the lowest ratios in 2020. 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%. 25 banks made use of distribution restrictions following the breach of the trigger of the combined buffer requirement in any of the three years of the scenario.

Figure 8: CET1 capital ratio by bank in alphabetical order at the starting point and as of end-2020 under the adverse scenario (%)

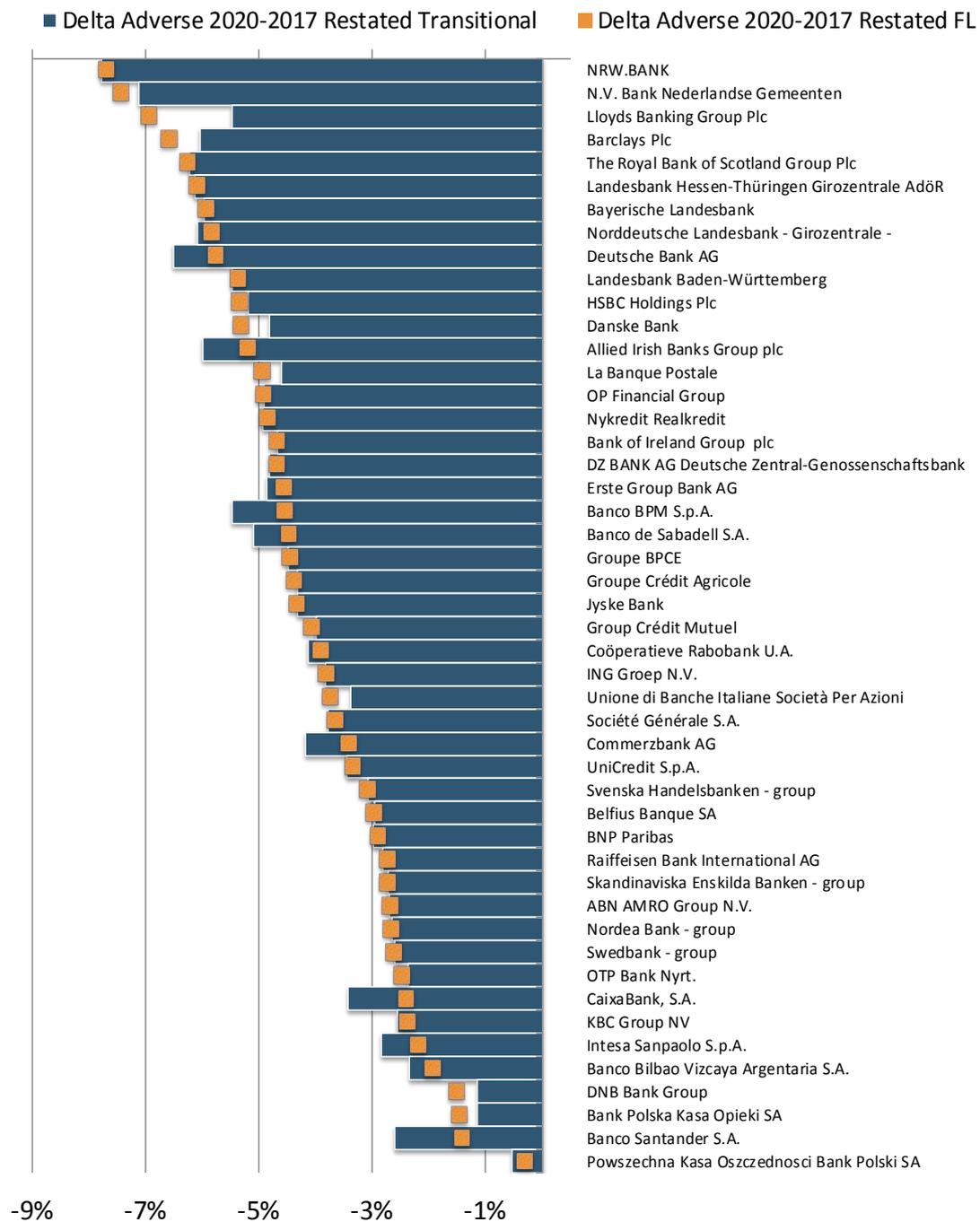


In terms of the impact of the adverse scenario on banks' capital ratio, Figure 9 also shows a large dispersion. Banks project a negative impact that ranges, on a transitional basis, from 50 bps to 780 bps (30 bps to 770 bps on a fully loaded basis).

When comparing the bank-by-bank fully loaded and transitional results, the evolution of the banks' capital ratios and the impact with and without transitional arrangements differs across banks:

- Those banks that chose not to apply IFRS 9 transitional arrangements and that already at the end of 2017 were close to the full implementation of the CRR show a similar transitional and fully loaded impact;
- Some banks report a significantly higher fully loaded than transitional impact mainly due to the application of a dynamic approach in the calculation of IFRS 9 transitional arrangements for stage 1 and stage 2 exposures. Material increases of impairments especially for stage 2 exposures lead to additional transitional arrangements during the stress time horizon;
- Finally, some banks report a much lower fully loaded impact. This is in general explained by the fully phase-in by the end of 2020 of CRR transitional adjustments that were in force at the beginning of the exercise, such as DTAs that rely on future profitability. In addition, in the case of the bank that is applying a pure static approach for the recognition of IFRS 9 transitional arrangements, the IFRS 9 transitional arrangements decrease over the time horizon of the exercise.

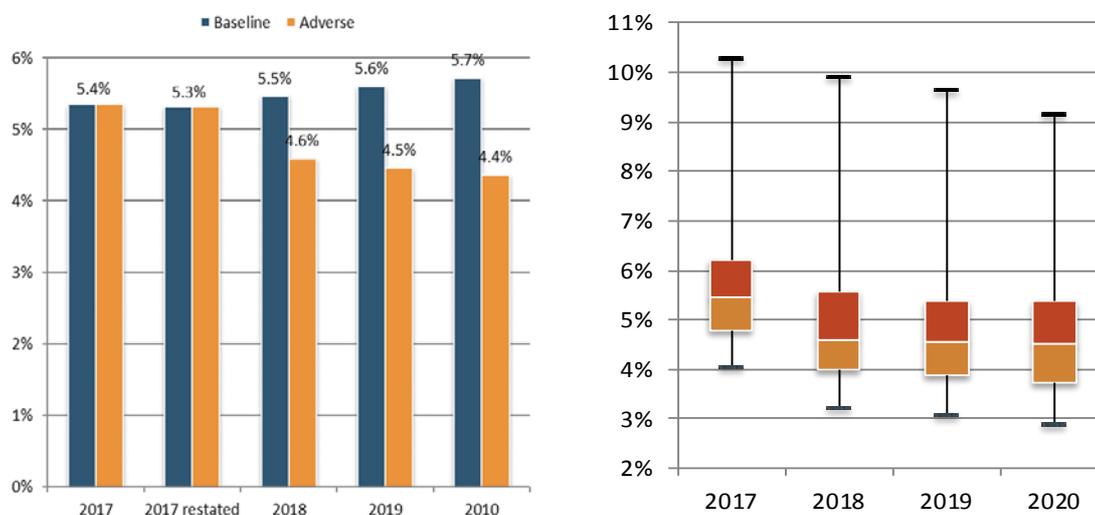
Figure 9: Impact on CET1 capital ratio from 2017 to 2020 under the adverse scenario by bank, ordered by size of the fully loaded impact



## 3.2 Impact on leverage ratio

The impact of the first implementation of IFRS 9 on banks' weighted average leverage ratio is 5bps on a transitional basis, 10bps on a fully loaded basis. In addition, the weighted average transitional leverage ratio drops by 95bps (90bps fully loaded), from 5.4% in 2017 to 4.4% in 2020 under the adverse scenario (see Figure 10), from 5.1% to 4.2% on a fully loaded basis. 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 10 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. In 2017, the minimum actual leverage ratio reported is 3.4%. Under the adverse scenario, two banks report a ratio below 3% in 2018, and three banks both in 2019 and 2020.<sup>13</sup>

Figure 10: Evolution of transitional aggregate leverage ratio (%) (1) and its dispersion – 5th and 95th percentiles, interquartile range and median in 2017 actual<sup>14</sup> and in the adverse scenario (%) (2)



<sup>13</sup>3% is the minimum leverage ratio that banks must meet at all times according to Basel III (paragraph 7 of the Leverage ratio standards included in the “Basel III: Finalising post-crisis reforms” paper, <https://www.bis.org/bcbs/publ/d424.pdf>).

<sup>14</sup> Data show the same dispersion of 2017 banks' restated leverage ratios compared to 2017 actual leverage ratios.

## 4. Main drivers of the impact

---

Figure 11<sup>15</sup> shows the contribution of different profit and loss (P&L) and balance sheet items to the change in the aggregate CET1 capital ratio between 2017 and 2020 under the adverse scenario.<sup>16</sup> Credit risk losses arising from the impairment of financial assets not measured at fair value through profit and loss<sup>17</sup> are the main contributor to the stress impact, and detract 425 bps from the CET1 capital ratio as of end-2020. Part of the impairments recognised under the IFRS 9 ECL model, can be added back to capital, for those banks that chose to apply transitional arrangements under IFRS 9.

Other relevant direct drivers of banks' capital depletion are market risk and operational risk losses. Following the methodology, market risk losses are fully recognised in the first year of the stress test horizon (i.e. in 2018), and have an impact on CET1 capital ratio of 110 bps. However, the partial recovery of NTI levels in 2019 and 2020 compensates part of the 2018 market risk losses. In addition, operational risk losses drive banks' CET1 capital ratio further down by 100bps.

Banks' capital ratios are impacted not only by the capital depletion, on the numerator side, but also by the increase of the total volume of REA, with an aggregate impact of -160bps (on CET1 capital ratio).

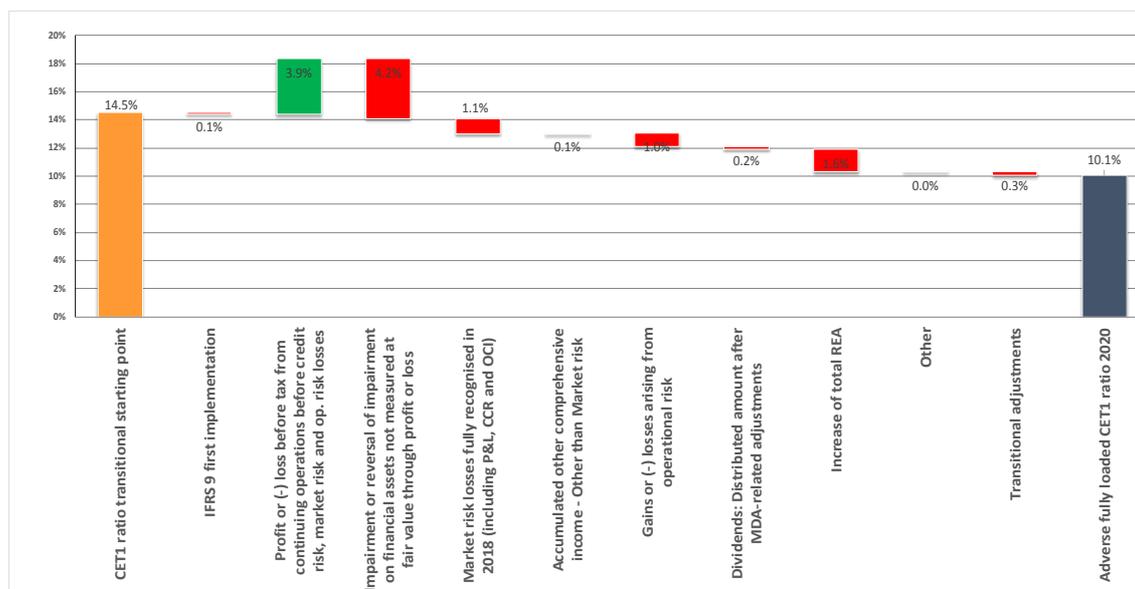
---

<sup>15</sup> Contributions to the numerator of the aggregate CET1 ratio are measured against the aggregate actual total REA as of the starting point.

<sup>16</sup> Impacts of single drivers are reported gross of taxes – taxes included in 'other'.

<sup>17</sup> FVOCI exposures are subject to the market risk approach.

Figure 11: Contribution of main drivers to the change in CET1 capital ratio from 2017 to 2020 in the adverse scenario (waterfall)<sup>18</sup>



In addition to the direct drivers reflected in the chart above, the final CET1 capital ratio is also affected by the cumulative decrease of the main sources of banks' income (NII, NFCI, net trading income (NTI)<sup>19</sup> or dividend income) over the adverse scenario compared to the starting point. The reduction in the sources of income leads to lower contributions to capital compared to the hypothetical contribution of unstressed starting point values. This effect is analysed in section 4.1.

#### 4.1 Impact on profitability

Figure 12 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. Banks project an aggregate cumulative loss, net of taxes, of -127bn EUR at the end of the adverse scenario. Credit risk cumulative impairments of 358bn EUR at the end of the adverse scenario are the main driver of these losses.

The largest losses are projected in the first year of the adverse scenario, totalling -138bn EUR after taxes (-180bn EUR before taxes). In 2019 and 2020, banks report a profit of 0bn EUR and +11bn EUR, respectively, notably below the profit as of the starting point, +110bn EUR.

<sup>18</sup> "Profit or (-) loss before tax from continuing operations before credit risk, market risk and op. risk losses" includes the 2019 and 2020 NTI (+48bn EUR).

<sup>19</sup> 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 showed in the transparency P&L template.

Figure 12: Evolution of EU aggregate profit and loss account and absolute change in capital in the adverse scenario (EUR bn)<sup>20</sup>

	2017	2018	2019	2020	2018 - 2020 Adverse_Cumulative
Net interest income	306	277	264	251	792
Dividend income	8	5	5	5	14
Net fee and commission income	154	132	131	132	395
Gains or (-) losses on financial assets and liabilities held for trading and trading financial assets and trading financial liabilities	44	-34	24	24	15
Held with a trading intent and their related economic hedges	N/A	-24	N/A	N/A	-24
Economic hedges excluding hedges of items held with a trading intent	N/A	-7	N/A	N/A	-7
CVA	N/A	-7	N/A	N/A	-7
Liquidity reserves	N/A	-20	N/A	N/A	-20
Projection of client revenues	N/A	24	24	24	72
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	N/A	N/A	-10
Gains or (-) losses from hedge accounting	-1	-1	N/A	N/A	-1
Other operating income	48	43	43	43	130
(Other operating expenses)	-36	-31	-31	-31	-93
<b>Total operating income, net</b>	<b>518</b>	<b>348</b>	<b>460</b>	<b>449</b>	<b>1,256</b>
Administrative expenses	-311	-303	-304	-304	-911
(Impairment or (-) reversal of impairment on financial assets not measured at fair value through profit or loss)	-44	-180	-98	-79	-358
(Impairment of financial assets - CCR losses)	N/A	-19	N/A	N/A	-19
(Impairment or reversal of impairment on non-financial assets)	-5	-4	-3	-1	-7
Gains or (-) losses arising from conduct risk	N/A	-23	-17	-15	-54
Gains or (-) losses arising from other operational risk	N/A	-10	-9	-9	-27
<b>Profit or (-) loss before tax from continuing operations</b>	<b>151</b>	<b>-180</b>	<b>2</b>	<b>17</b>	<b>-161</b>
(Tax expenses or (-) income related to profit or loss from continuing operations)	-41	42	-2	-5	35
<b>Profit or (-) loss for the year</b>	<b>110</b>	<b>-138</b>	<b>-0</b>	<b>11</b>	<b>-127</b>
Amount of dividends paid (before consideration of MDA restrictions)	53	7	11	12	31
Distributed amount after MDA-related adjustments	60	-0	8	9	17
<b>Attributable to owners of the parent net of estimated dividends</b>	<b>50</b>	<b>-138</b>	<b>-8</b>	<b>3</b>	<b>-143</b>
Changes to accumulated other comprehensive income	N/A	-27	-27	-27	N/A
Changes to accumulated other comprehensive income - Arising from full revaluation, cash flow hedge and liquidity reserves	N/A	-34	-34	-34	N/A
Changes to accumulated other comprehensive income - OCI Impact of defined benefit pension plans [gain or (-) loss]	N/A	7	7	7	N/A
Changes to accumulated other comprehensive income - Other OCI contributions	N/A	-0	-0	-0	N/A
<b>Yearly Changes to CET1 CAPITAL (net of deductions and after applying transitional adjustments)</b>	<b>N/A</b>	<b>-204</b>	<b>-231</b>	<b>-246</b>	<b>N/A</b>
<b>Yearly Changes to CET1 CAPITAL (fully loaded)</b>	<b>N/A</b>	<b>-230</b>	<b>-244</b>	<b>-248</b>	<b>N/A</b>

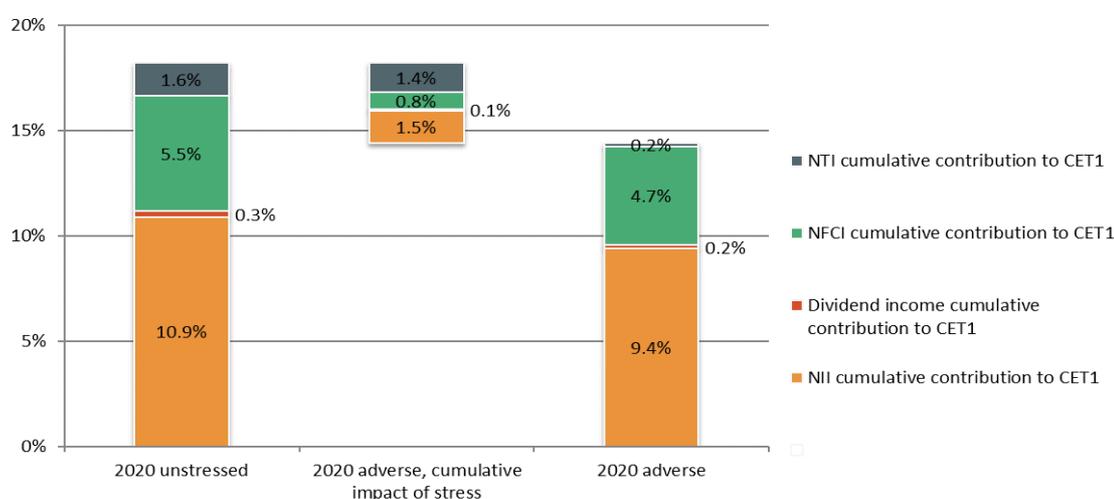
The main sources of income are NII and NFCl, which under the adverse scenario decrease by 18% and 14%, respectively, as of end 2020.

Figure 13 shows, under the adverse scenario, the cumulative contribution to capital of the banks' main sources of income (NII, NFCl, dividend income and NTI) as of end-2020, compared to their

<sup>20</sup> Only main items are included so that sub-items do not necessarily add up to the total.

hypothetical unstressed contribution, i.e. keeping constant the income recognised in 2017 over the three years of the stress test. The impact under the adverse scenario is -150bps on NII, -10bps on dividend income, -80bps on NFI and -140bps on NTI. This means that the aggregate contribution to CET1 capital ratio of these four sources of income would have been +380 bps higher without stress.

Figure 13: Cumulative contribution to capital of the main sources of income over 2018-2020 adverse, compared to the hypothetical unstressed contribution<sup>21</sup>



### 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.<sup>22</sup> Finally, the methodology prescribes a cap applicable to the EIR of net NPEs and a cap to the overall volume of NII.

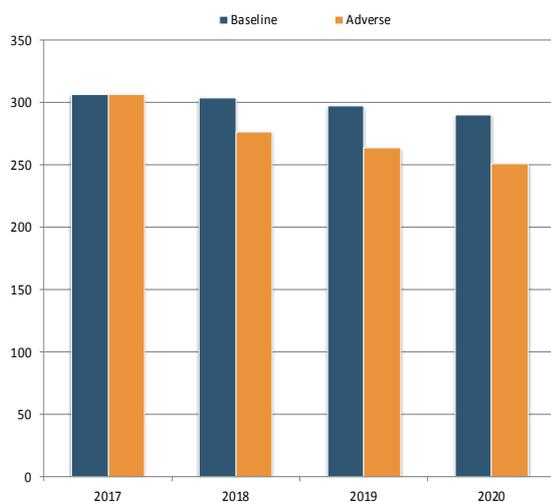
Aggregate NII falls by 55bn EUR as of 2020 in the adverse scenario compared to the starting point, an 18% drop from 306bn EUR to 251bn EUR (see Figure 14). This decrease is driven by several components. Rising interest rates as defined in the scenario can have a positive impact on the income side. This is however more than offset by the shock to funding spreads which can be passed

<sup>21</sup> Only main items are included so that sub-items do not necessarily add up to the total.

<sup>22</sup> The classification of deposits in the fixed or floating category is based on the contractual conditions defined by the banks. Sight deposits are considered as fixed rate instruments unless their remuneration is referenced to an interest rate index.

through only incompletely to the asset side. The EIR on the assets increases by 110bps in the adverse scenario (from 75bps in 2017 to 185bps in 2020), while the EIR on the liabilities increases by 115bps (from 40bps in 2017 to 155bps in 2020). Therefore, the difference between the EIR on the assets and the cost of funding decreases from the initial 35bps to 30bps at the end-2020.

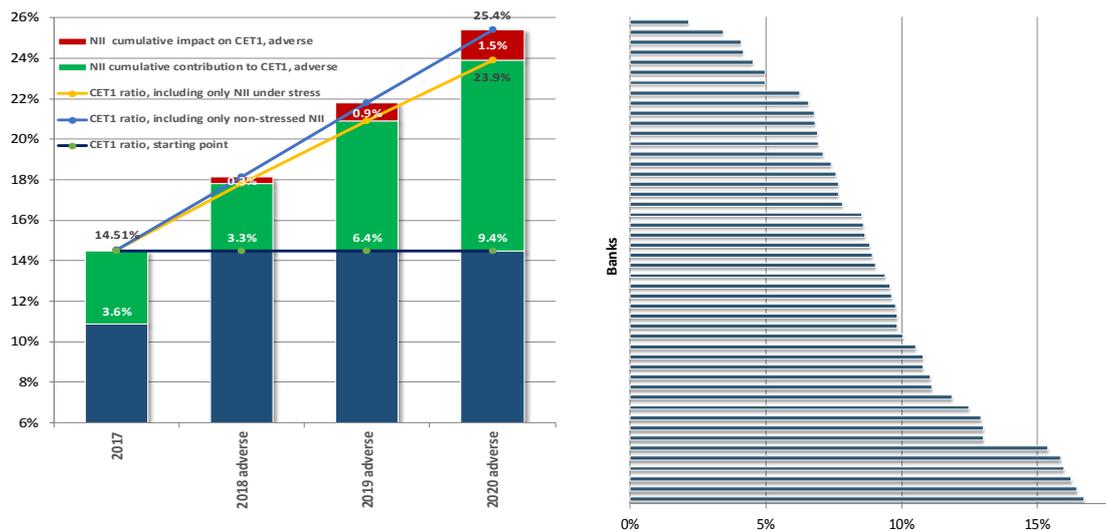
Figure 14: Evolution of aggregate NII (EUR bn)



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 over 3 years is 127bn EUR lower than it would have been holding the starting value constant, which is equivalent to a 150bps lower contribution to the CET1 ratio fully loaded at the end of 2020 (see Figure 15).

The positive contribution to capital of NII varies significantly across banks, representing for some banks more than 15pp of additional capital at the end of the adverse scenario, and for other less than 5pp (see Figure 15). This dispersion is driven by the evolution of interest rates and sovereign spreads across countries, but also by the level of profitability of the banks at the starting point and by their business models. Data shows indeed dispersion also among banks in the same country. The analysis of the data shows that banks with a high interest margin at the starting point have a better capability to absorb an increase in the cost of funding.

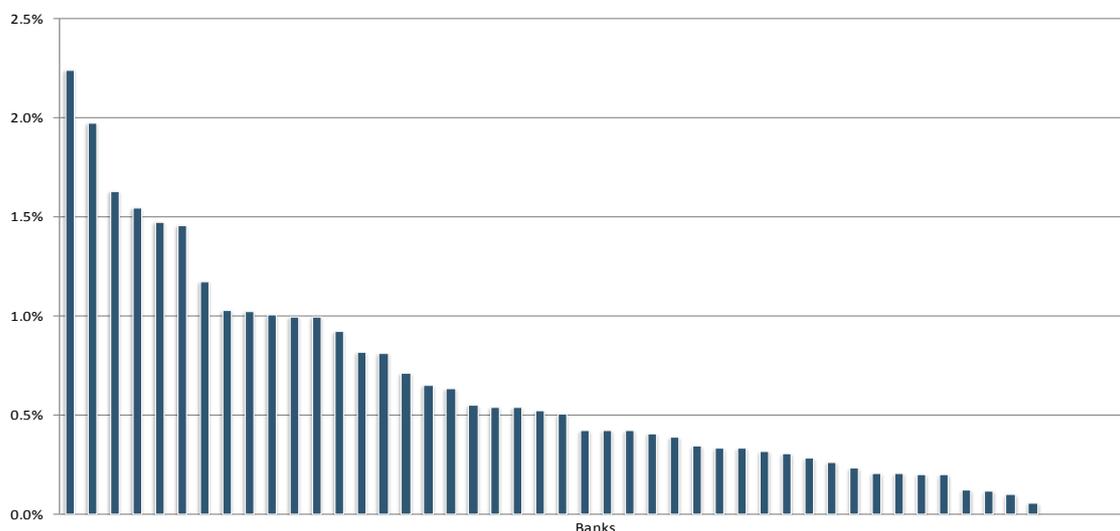
Figure 15: Cumulative contribution of NII to CET1 capital ratio under adverse scenario compared to unstressed contribution, over 2017-2020 (1) Dispersion of the contribution to CET1 capital ratio of cumulative interest income as of end 2020 under the adverse scenario by banks in the sample (2)



### Box 2: Treatment of NPEs under the NII methodology

In the 2016 stress test exercise, the methodology, under the adverse scenario, did not allow the recognition of interest income on defaulted assets, with the exception of income stemming from discount unwinding, which was capped by the starting point value. In the 2018 stress test, and in line with IFRS 9, banks are allowed to recognise interest income for NPEs at amortised cost, i.e. on the value of the exposure net of provisions. The cumulative interest income recognised for NPEs as of end 2020 under the adverse scenario has a positive contribution to capital of 60bps, including discount unwinding. Figure 16 shows a large dispersion among banks in the contribution of the cumulative interest income recognised for the stock of NPEs over the three years of the adverse scenario.

Figure 16: Dispersion of the contribution to CET1 capital ratio of interest income from NPEs as of end 2020 under the adverse scenario



Finally, the combined application of the methodological caps on EIR of net NPEs and on total volume of NII, described at the beginning of this section, drives the NII down by 4bn EUR as of end 2020 compared to the starting point, and the cumulative decrease in the aggregate NII over the stress time horizon down by 8bn EUR, i.e. 10bps of lower contribution to the CET1 ratio fully loaded at the end of 2020.

#### 4.1.2 Credit risk losses

Credit risk losses<sup>23</sup> over the three years of the exercise in the adverse scenario are 358bn EUR, of which 354bn EUR come from financial assets at amortised cost, (see Figure 17) leading to a -425bps impact on the CET1 capital ratio. Losses have the largest impact in the first year of the scenario, due to the perfect foresight methodological assumption and to the lifetime ECL approach for stage 2 and stage 3 exposures.

Exposures towards counterparties in UK, Italy, France, US, Spain and Germany are those contributing the most to credit losses (see Figure 18) in absolute terms. The distribution of new impairments by country of counterparty reflects to a large extent the volume of the exposures towards counterparties in those countries, as shown in Figure 18. However, the credit risk impact

<sup>23</sup> 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”.

reflects also the severity of the scenario in the country as well as the distribution of exposures across asset classes.

Figure 17: Evolution of absolute credit losses (EUR bn)

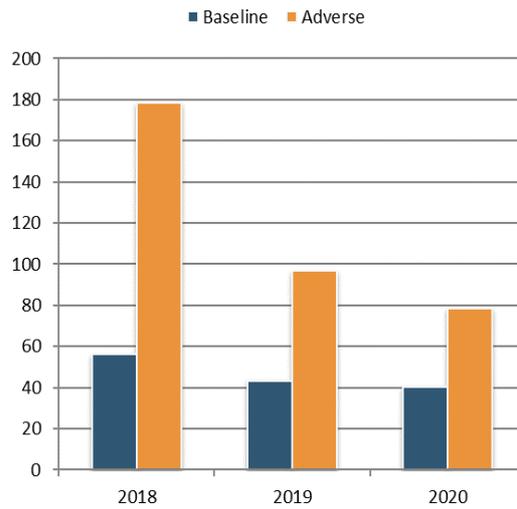
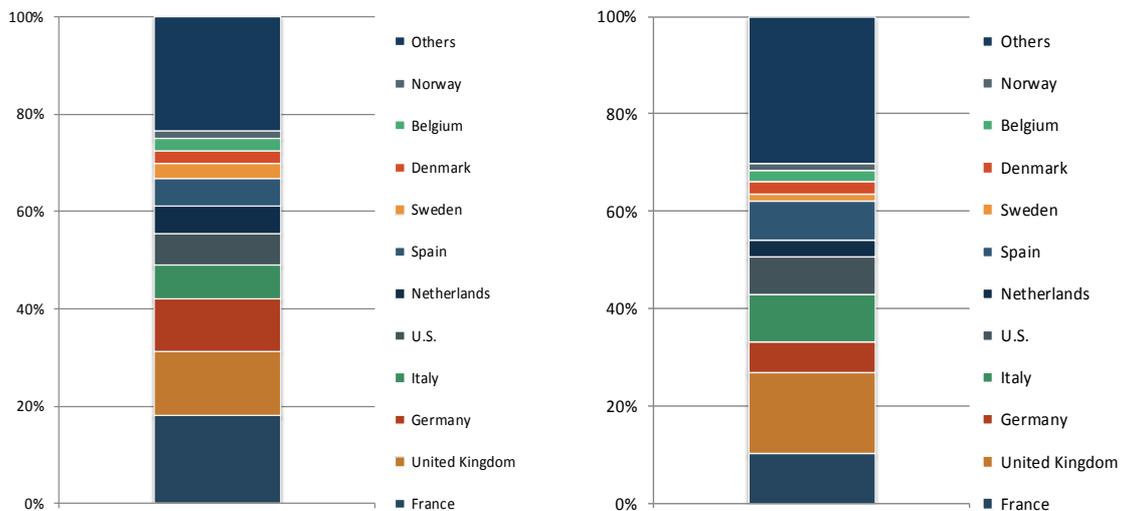


Figure 18: Share of total credit risk exposures (1) and of 2018-2020 new credit risk losses (2) in the adverse scenario for selected countries of the counterparty (%)



Corporate and retail exposures other than those secured by mortgages on real estate property account for the majority of credit risk losses projected across the three years of the adverse scenario (see Figure 19). Corporate exposures (IRB and STA) contribute to total losses by 140bn EUR (40% of total losses) followed by other retail exposures (excluding secured by real estate property and secured by mortgages on immovable property) with more than EUR 128bn (36% of the total).

Figure 19: Contribution to cumulative 2020 credit losses in the adverse scenario – by regulatory exposure class (%) – Total (1), IRB (2), STA (3)

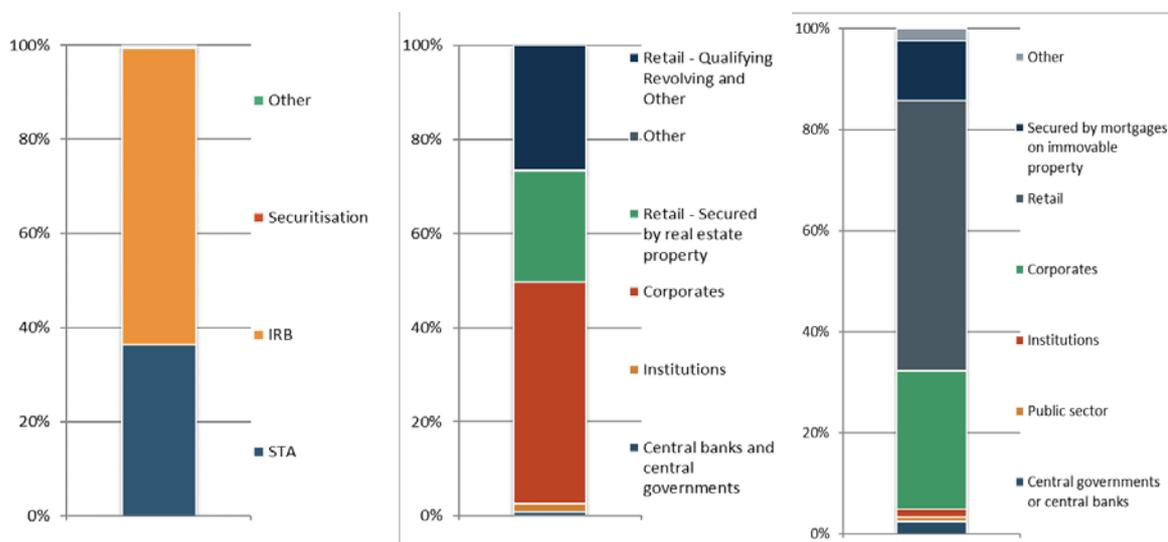
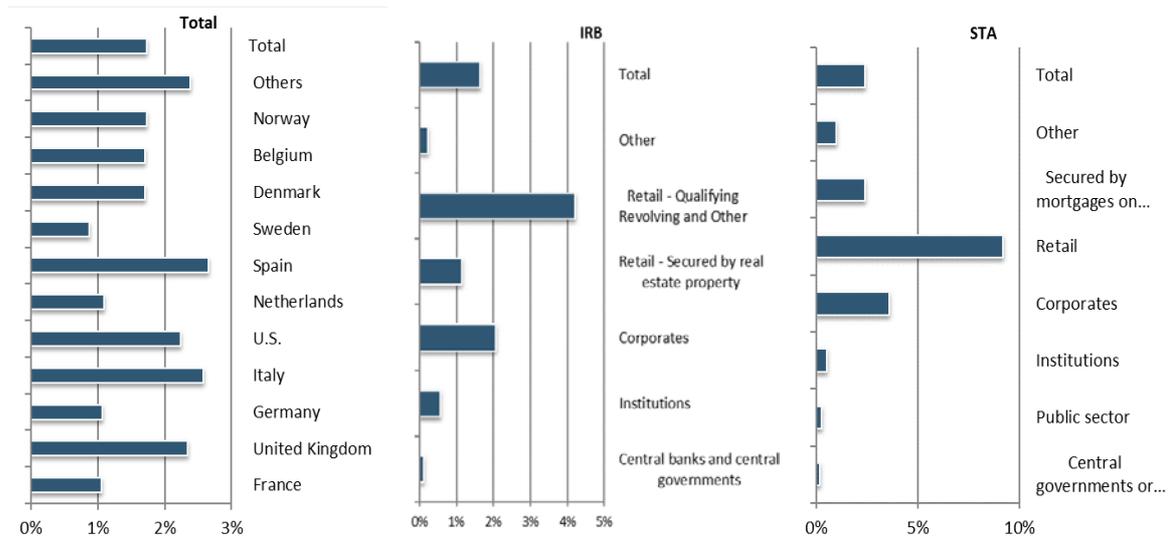


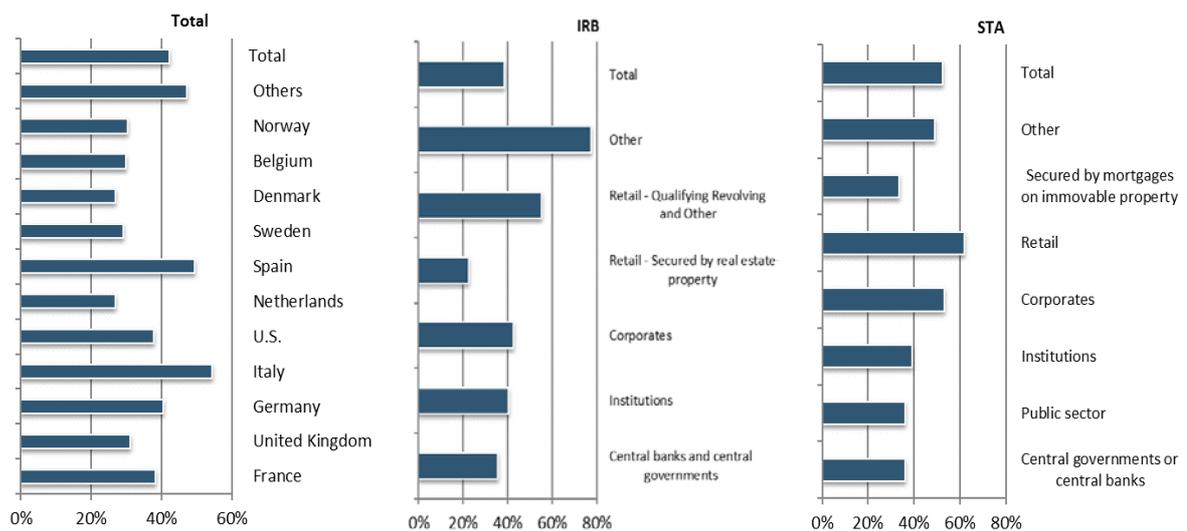
Figure 20 provides information on the ratio of aggregate credit risk losses as of end 2020 compared to the volume of the total exposures at the starting point by country of counterparty, for the countries with the largest exposures. In this case, the exposures towards counterparties in Spain, Italy, UK and US show the highest ratio of impairments projected over the three years of the adverse scenario compared to total exposures, above 2%. Considering all the countries, the exposures towards counterparties in Brazil, Peru, Russia and Romania show a ratio above 6%. Retail exposures non-secured by real estate assets show the highest level of impairments under the adverse scenario compared to the volume of exposures.

Figure 20: Cumulative credit losses as a percentage of restated 2017 exposure in the adverse scenario, end 2020 – for selected countries of the counterparty and by regulatory exposure class (%)



Information on coverage ratios for defaulted exposures is provided in Figure 21. The aggregate coverage ratio for defaulted exposures at the end of the adverse scenario is 42%. As expected, the highest coverage ratios are reported for unsecured exposures, retail in particular. In terms of country of the counterparty, in general those countries with higher ratio of impairments over total exposures also show higher coverage ratio for defaulted exposures.

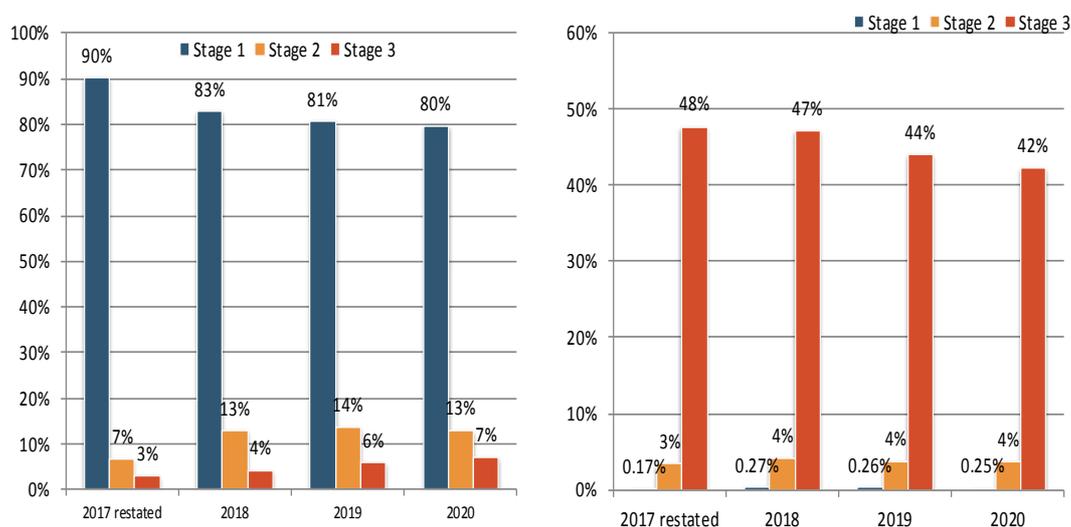
Figure 21: Coverage of defaulted exposures as a percentage of end 2020 adverse scenario – Total, for selected countries of the counterparty and by regulatory exposure class (%)



An analysis by IFRS 9 stages shows that the overall share of stage 1 exposures decreases over the stress test horizon by 10pp. The share of stage 2 and stage 3 exposures increases over the three years of the adverse scenario by 6pp and 4pp respectively (see Figure 22). While stage 2 exposures can move to stage 1 and stage 3, exposures in stage 3 (or exposures transferred to stage 3) cannot be cured, in line with the methodological constraints, which also prescribes that all NPEs should be classified as stage 3 exposures.

For stage 1 and stage 2 exposures, the coverage ratio stays roughly stable over the stress test horizon while for stage 3 it steadily decreases. This is driven by the high increase in the share of stage 3 exposures (+133%) and the lower loss rates being applied to new defaults in comparison to the loss rates of the initial defaults.

Figure 22: Share of exposures per stage (%) (1) and coverage ratio per stage (2) – Evolution over the projection horizon in the adverse scenario



### 4.1.3 Market risk losses, including CCR and CVA

The market risk methodology applies to all NTI components<sup>24</sup>, 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 with instantaneous shocks, provided in the market risk scenario, that lead to losses in 2018 followed by two years of reduced trading income.

Compared to 2016, the methodology includes two additional features: the liquidity and model uncertainty shock on L2 and L3 instruments (see Box 3) and the projections of client revenues that are modelled by banks but are subject to a cap as described in the methodological note.

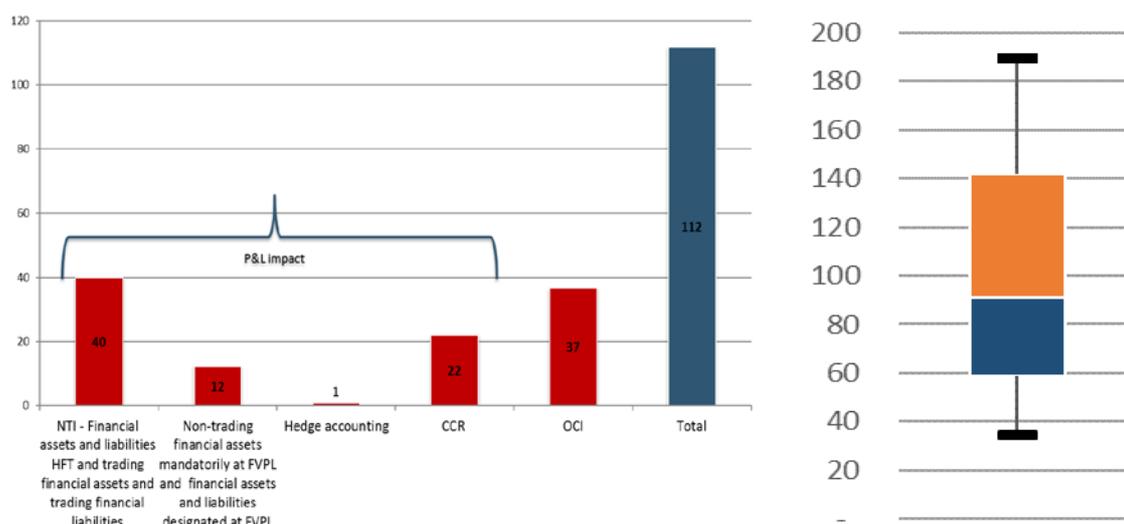
The impact on capital ratios coming from the market risk methodology in the first year of the adverse scenario is -94 bn EUR (-110 bps) of which -63 bn EUR (-75 bps) are recognised in P&L.

The main drivers of the market risk impact in 2018 are OCI (33% of total market risk impact), which includes some of the losses coming from the application of the full revaluation approach to sovereign exposures (see Box 4); NTI (36% of total market risk impact); and CCR (20% of total market risk impact) while hedge accounting positions have a negligible impact (see Figure 23). As shown in

<sup>24</sup> Held with a trading intent (HFT), Credit Valuation Adjustments (CVA), Economic hedges, Liquidity reserves and Client revenues

Figure 23 the dispersion of the total impact coming from market risk is quite significant, ranging from -35 to -190 bps.

Figure 23: Contribution of different market risk components to market risk losses under the adverse scenario in 2018 (bps) (1) and distribution among the sample (5<sup>th</sup>, 25<sup>th</sup>, 50<sup>th</sup>, 75<sup>th</sup>, 95<sup>th</sup> percentiles) of the total impact coming from market risk in the 2018 adverse scenario (bps) (2)



Within NTI, HFT losses and liquidity reserves (that include part of the model uncertainty impact, see Box 3) are the main contributors of the reduction in NTI accounting for -24bn EUR and -20bn EUR, respectively. Client revenues in 2018 dropped by 38% (from 39bn to 24bn) offsetting some of the NTI losses in 2018.

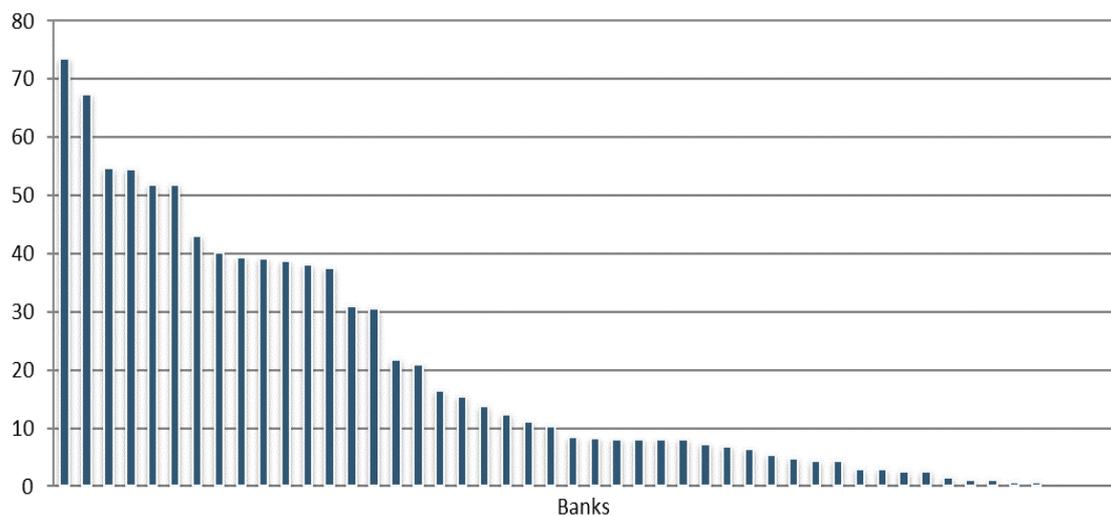
Box 3: Liquidity and model uncertainty shock on Level 2 and Level 3 instruments

The liquidity and model uncertainty shock on banks' reserves covering L2 and L3 is a new feature of the 2018 stress test methodology. The shocks provided in the market risk scenario are applied to the bid-ask spread of L2 and L3 instruments and produce an increase in the reserves on fair value adjustments covering liquidity issues and model risk.<sup>25</sup> Regarding the adjustments to Additional Valuation Adjustment (AVA) reserves, only those related to market price uncertainty, close out cost and model risk are in scope. The total impact coming from the model uncertainty shock on L2 and L3 instruments amounts to -21bn EUR (-25bps) of which -5.4bn EUR corresponds to L3 assets and -16bn EUR to L2 assets, and affects capital mainly through P&L (liquidity reserves, -19.5bn EUR). Data projected by banks exhibit a high dispersion in terms of losses coming from

<sup>25</sup> L2 instruments that are cleared at a CCP are out of scope for the model uncertainty shock.

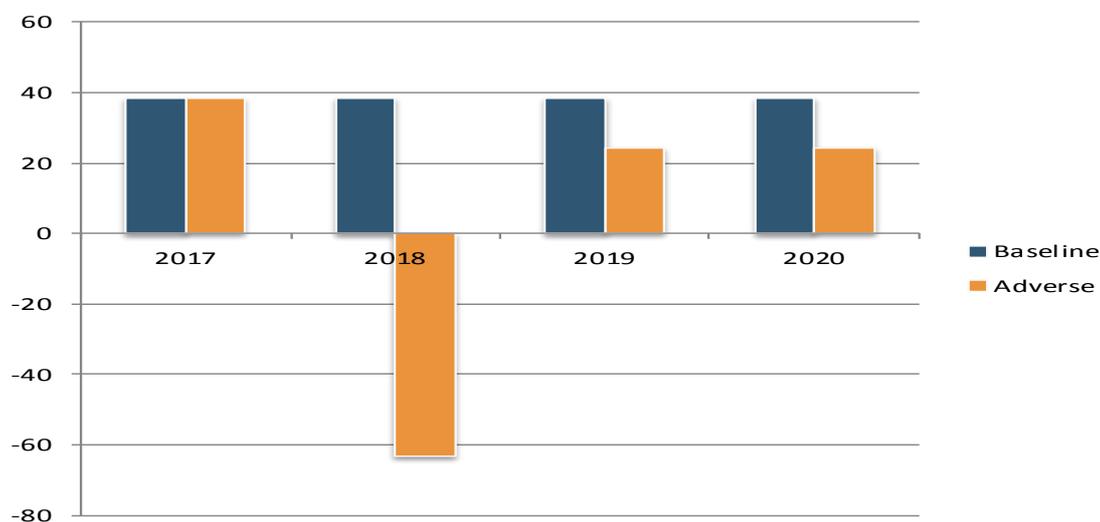
the liquidity and model uncertainty shock (as shown in Figure 24). In particular, the impact is quite significant for some banks (up to -75 bps).

Figure 24: Impact in CET1 capital ratio in the 2018 adverse scenario of the model uncertainty and liquidity shock by bank (bps)



Looking at the evolution of the P&L impact (Figure 25), the losses in the first year are partially offset by the positive income in the next years resulting in a net cumulative loss of -14 bn EUR as of end 2020. Nevertheless, the impact remains significant compared to the increase in capital that would have been generated by keeping the starting value constant over the 3 years (129 bn EUR, 155 bps).

Figure 25: Evolution of market risk P&amp;L impact (EUR bn)



#### Box 4: Sovereign exposure

The risks arising from sovereign exposures are covered in credit risk and in market risk, depending on their accounting treatment. For sovereign exposures at amortised cost, banks had to estimate default and impairment flows applying a set of PD and LGD parameters developed by the ECB for a selection of countries.

Sovereign exposures at FVPL or 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.

The methodology does not require detailed bank-by-bank sovereign exposures by country of the counterparty. This information will be however published in December 2018 as part of the EU-wide transparency exercise.

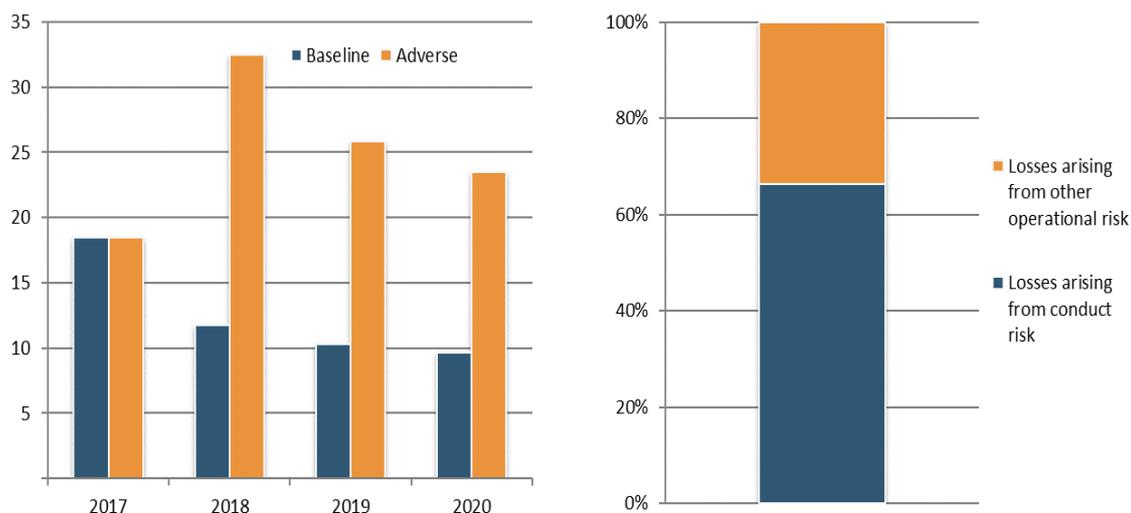
### 4.1.4 Conduct risk and other operational risk

For projecting operational risk losses, the 2018 EU-wide stress test methodology required banks to use their internal models. However, the projections were subject to floors based on their loss experience. As in the 2016 EU-wide stress test, additional guidance and reporting requirements were set for material conduct risk events determined primarily by interaction between supervisors and banks and featuring, for example, mis-selling, market manipulation and money laundering. In

addition, in this year’s exercise also material conduct risk losses were subject to a floor, to be used by supervisors during the quality assurance process (see Box 5).

Aggregate cumulative operational risk losses in the adverse scenario are 82bn EUR, with a negative impact on capital of 100bps. Conduct risk losses account for 54bn EUR, with a negative capital impact of 65bps. The remaining amount is composed of projected losses classified as other operational risk losses (see Figure 26). In total, 17 banks estimated a negative impact of conduct risk above 1bn EUR. Banks projected the largest volumes of losses in 2018, when operational risk losses increase by 75% from 18bn EUR in 2017 to 32bn EUR in 2018 in the adverse scenario. Conduct risk losses increase by approximately 80%, from 13bn EUR in 2017 to 23bn EUR in 2018.

Figure 26: 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)



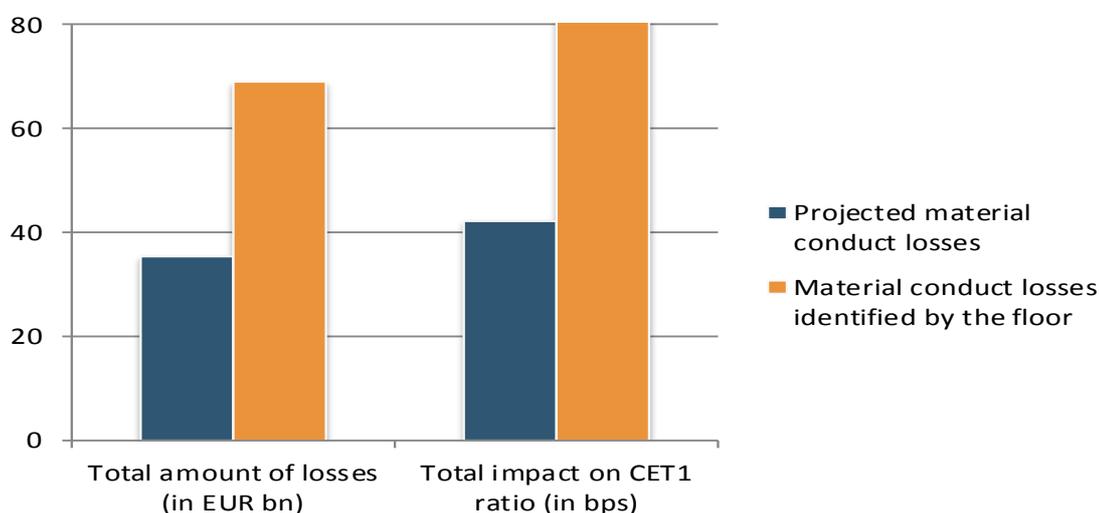
Box 5: Comparison between the projected material conduct risk losses and the floor for material conduct risk losses in the adverse scenario

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. 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 applies 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 2013-2017 period) for material conduct risk events multiplied by a stress factor (1.15).

For the three-year horizon, the banks in the sample projected 35bn EUR of material conduct risk losses in the adverse scenario. This corresponded to 40bps 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 69bn EUR, having a negative CET1 impact of 80bps (weighted average).

Figure 27: Comparison between the projected material conduct risk losses and the floor for material conduct risk losses under the adverse scenario (EUR bn and bps)

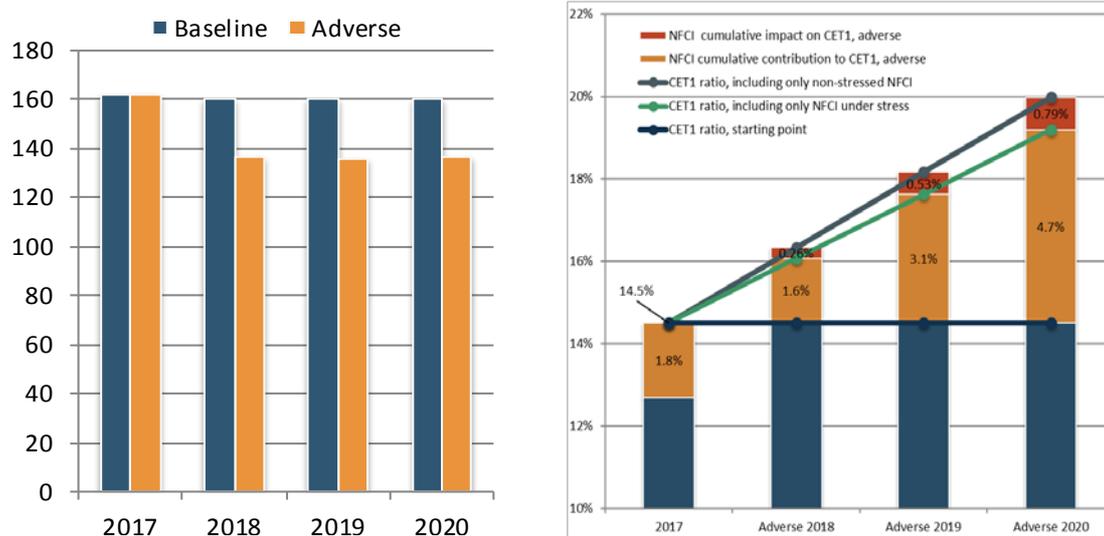


#### 4.1.5 Non-interest income and expenses

Other P&L drivers to the stress test impact on banks' capital are related to non-interest income and expenses items. Among these, NFCI and dividend income, as well as administrative and other operating expenses, have the greatest impact.

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. The combined decrease of these sources of income is 25bn EUR or 15% from 2017 to 2020 in the adverse scenario. The NFCI cumulative impact on capital 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 (see Figure 28).

Figure 28: Evolution of NFCI and dividend income (EUR bn) (1), and cumulative impact to capital of NFCI (2)



The common methodology requires banks to project administrative expenses, other operating expenses, depreciation and other provisions or reversal of provisions floored at the starting level. However, projections can fall below the 2017 values in exceptional cases, namely when selected one-off costs incurred in 2017 are treated as one-off events that would not occur in 2018-2020. Administrative and other operating expenses, depreciation and other provisions decrease by 6bn EUR or 2% in the adverse scenario from 2017 to 2020.

#### Box 6: One-off adjustments

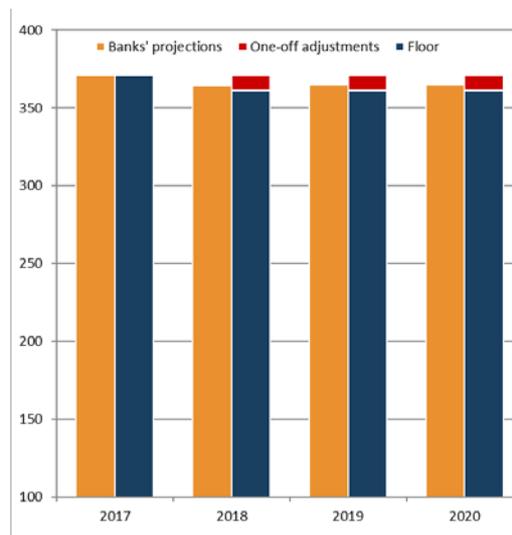
As in 2016, the methodology for the 2018 EU-wide stress test stated that administrative expenses and other P&L expenses items (including in 2018, other operating expenses, depreciation and other provisions or reversal of provisions) cannot fall below the value reported at the starting point. Adjustments of these constraints for one-off effects were only permitted with a number of restrictions and were 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 5bps, 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 2017;

- Business unit restructuring completed in 2017, 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 10bn EUR 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 10bps. On a cumulative basis, the reduction over the three years was EUR 29bn with an impact on the CET1 of the sample of 35bps. Banks in the sample were more conservative in their projections and reported an amount of expenses above the floor once this was adjusted for the one-offs (see Figure 29).<sup>26</sup>

Figure 29: Evolution of administrative expenses, other operating expenses, other provisions and depreciation (EUR bn)



<sup>26</sup> The impact resulting from one-off adjustments approved by the EBA Board of Supervisors is disclosed in the individual results for each bank.

### Box 7: Maximum Distributable Amount

For the first time in 2018, the 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).<sup>27</sup>

If in any year of the scenario the projected CET1 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:

- Banks could report distribution reductions for up to five P&L items pre and post-tax.
- In years of the scenario where the MDA trigger was breached, banks had to assume to distribute exactly the MDA.

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.

During the projection years of the stress test, 25 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 52bn EUR, with a positive impact on the total CET1 ratio of the sample of 60bps.

Another main contributor to the aggregate P&L is other operating income. Other operating income decreased by 10% from 2017 to 2020 in the adverse scenario. Its cumulative contribution to income is EUR 130bn.

## 4.2 Impact on risk exposure amount

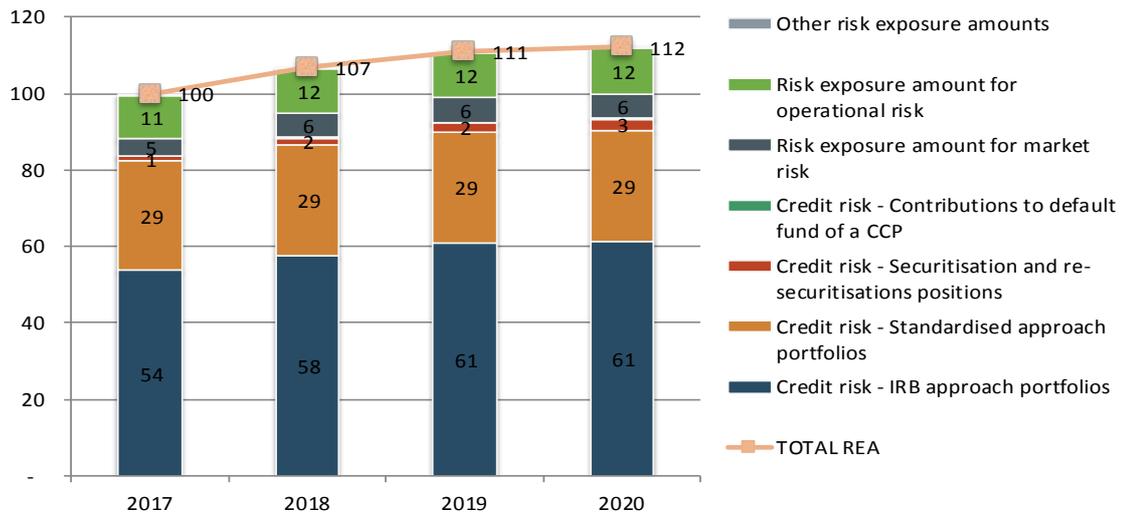
Under the adverse scenario, total REA increases by 12% as of end 2020 compared to the starting point, driving an impact on CET1 capital ratio of -160bps. This increase is mainly driven by the increase on the REA for credit risk and, in particular, by the IRB REA<sup>28</sup>. The REA for the STA approach remains roughly constant over the time horizon of the exercise. The rest of the increase is explained by the increase in REA for securitisation positions, market risk and operational risk. The prescribed

<sup>27</sup> 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.

<sup>28</sup> Banks which were granted formal approval of IRB internal models during the first quarter of 2018 were asked to apply these models for REA and EL calculations when restating balance sheet figures as of 1 January 2018 and for the subsequent projections.

methodological shock to the REA for securitisations results in the starting value more than doubling, albeit, with a small absolute impact.

Figure 30: Evolution of risk exposure amount by risk type under the adverse scenario (2017 actual = 100)

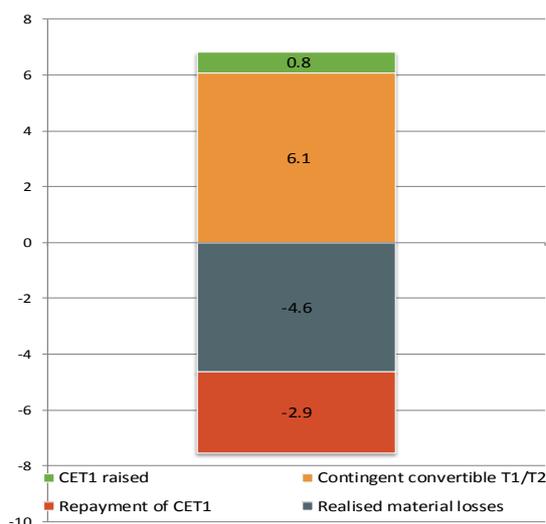


## 5. Capital measures between January 2018 and June 2018

According to the static balance sheet assumption, no capital measures taken after year-end 2017 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 June 2018 are disclosed on a separate template.

Overall, 1bn EUR of CET 1 Capital was raised or resulted from the conversion of hybrid instruments by banks in the sample between January and June 2018. The issuance of contingent convertibles amounted to 6bn EUR in total. Banks reported realised losses for a total of 5bn 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 2018, 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 half of 2018.

Figure 31: Capital measures taken by the banks during the first half of 2018 (EUR bn)



## Annex I: List of banks in the sample. Use of IFRS 9 transitional arrangements

Table 2: Banks in the sample of the exercise. Use of IFRS 9 transitional arrangements

Country	Bank Name	Use of IFRS 9 transitional arrangements
AT	Raiffeisen Bank International AG	No
AT	Erste Group Bank AG	No
BE	KBC Group NV	No
BE	Belfius Banque SA	No
DE	DZ BANK AG Deutsche Zentral-Genossenschaftsbank	No
DE	Landesbank Baden-Württemberg	No
DE	Deutsche Bank AG	No
DE	Commerzbank AG	No
DE	Norddeutsche Landesbank - Girozentrale -	No
DE	Bayerische Landesbank	No
DE	Landesbank Hessen-Thüringen Girozentrale AdÖR	No
DE	NRW.BANK	No
DK	Danske Bank	Yes (static and dynamic)
DK	Jyske Bank	No
DK	Nykredit Realkredit	No
ES	Banco Santander S.A.	Yes (static and dynamic)
ES	Banco Bilbao Vizcaya Argentaria S.A.	Yes (static and dynamic)
ES	CaixaBank, S.A.	No
ES	Banco de Sabadell S.A.	Yes (static and dynamic)
FI	OP Financial Group	No
FR	BNP Paribas	No
FR	Groupe Crédit Agricole	No
FR	Société Générale S.A.	No
FR	Group Crédit Mutuel	No
FR	Groupe BPCE	No
FR	La Banque Postale	No
GB	Barclays Plc	Yes (static and dynamic)
GB	Lloyds Banking Group Plc	Yes (static and dynamic)
GB	HSBC Holdings Plc	Yes (static and dynamic)
GB	The Royal Bank of Scotland Group Plc	Yes (static and dynamic)

Country	Bank Name	Use of IFRS 9 transitional arrangements
HU	OTP Bank Nyrt.	Yes (static and dynamic)
IE	Bank of Ireland Group plc	Yes (static and dynamic)
IE	Allied Irish Banks Group plc	Yes (static and dynamic)
IT	UniCredit S.p.A.	No
IT	Intesa Sanpaolo S.p.A.	Yes (static only)
IT	Banco BPM S.p.A.	Yes (static and dynamic)
IT	Unione di Banche Italiane Società Per Azioni	Yes (static and dynamic)
NL	N.V. Bank Nederlandse Gemeenten	No
NL	ABN AMRO Group N.V.	No
NL	ING Groep N.V.	No
NL	Coöperatieve Rabobank U.A.	No
NO	DNB Bank Group	No
PL	Powszechna Kasa Oszczedności Bank Polski SA	Yes (static and dynamic)
PL	Bank Polska Kasa Opieki SA	Yes (static and dynamic)
SE	Skandinaviska Enskilda Banken - group	No
SE	Nordea Bank - group	No
SE	Swedbank - group	No
SE	Svenska Handelsbanken - group	No

## Annex II: Capital ratios for individual banks

Table 3: Transitional CET1 capital ratio ratios (%) and deltas to starting point (bps)

Country	Bank	Starting 2017	Starting 2017 restated	Baseline 2020	Adverse 2018	Adverse 2019	Adverse 2020	Delta Adverse 2020	Delta Adverse 2020 Restated
AT	Raiffeisen Bank International AG	12.89%	12.55%	13.61%	10.54%	10.08%	9.73%	- 315	- 282
AT	Erste Group Bank AG	13.37%	13.43%	13.31%	10.64%	9.69%	8.56%	- 481	- 486
BE	KBC Group NV	16.46%	16.14%	18.56%	14.63%	13.95%	13.60%	- 286	- 254
BE	Belfius Banque SA	16.08%	16.17%	17.67%	13.85%	13.58%	13.21%	- 287	- 296
DE	DZ BANK AG Deutsche Zentral-Genossenschaftsbank	13.81%	13.77%	14.33%	9.76%	9.25%	8.97%	- 484	- 481
DE	Landesbank Baden-Württemberg	15.79%	16.15%	16.03%	12.52%	11.28%	10.69%	- 510	- 547
DE	Deutsche Bank AG	14.80%	14.65%	13.45%	9.18%	8.25%	8.14%	- 666	- 651
DE	Commerzbank AG	14.94%	14.10%	14.36%	10.64%	10.15%	9.93%	- 501	- 417
DE	Norddeutsche Landesbank - Girozentrale -	12.40%	13.15%	13.57%	8.76%	7.78%	7.07%	- 532	- 608
DE	Bayerische Landesbank	15.32%	15.40%	15.46%	12.82%	10.78%	9.44%	- 588	- 596
DE	Landesbank Hessen-Thüringen Girozentrale AdöR	15.40%	16.10%	16.15%	11.70%	10.08%	9.96%	- 544	- 614
DE	NRW.BANK	41.74%	41.74%	39.92%	35.72%	34.75%	33.96%	- 778	- 778
DK	Danske Bank	17.62%	17.58%	16.36%	14.05%	13.42%	12.77%	- 485	- 481
DK	Jyske Bank	16.35%	16.01%	16.57%	12.83%	12.13%	11.69%	- 466	- 432
DK	Nykredit Realkredit	20.69%	20.55%	21.96%	18.72%	15.80%	15.63%	- 506	- 492
ES	Banco Santander S.A.	12.26%	12.31%	14.07%	9.47%	9.61%	9.72%	- 254	- 259
ES	Banco Bilbao Vizcaya Argentaria S.A.	11.67%	11.59%	13.00%	8.85%	9.12%	9.25%	- 242	- 234

## 2018 EU-WIDE STRESS TEST – RESULTS

Country	Bank	Starting 2017	Starting 2017 restated	Baseline 2020	Adverse 2018	Adverse 2019	Adverse 2020	Delta Adverse 2020	Delta Adverse 2020 Restated
ES	CaixaBank, S.A.	12.73%	12.54%	13.60%	9.89%	9.51%	9.11%	- 363	- 343
ES	Banco de Sabadell S.A.	13.44%	13.51%	13.50%	9.95%	9.13%	8.40%	- 504	- 511
FI	OP Financial Group	20.10%	20.20%	21.25%	18.49%	16.90%	15.28%	- 481	- 491
FR	BNP Paribas	11.77%	11.62%	12.54%	9.11%	8.78%	8.64%	- 312	- 297
FR	Groupe Crédit Agricole	14.84%	14.54%	16.33%	11.93%	10.75%	10.21%	- 463	- 433
FR	Société Générale S.A.	11.57%	11.38%	11.83%	8.09%	7.72%	7.61%	- 396	- 378
FR	Group Crédit Mutuel	17.44%	17.25%	18.90%	15.20%	14.21%	13.26%	- 418	- 399
FR	Groupe BPCE	15.28%	15.16%	17.24%	12.33%	11.27%	10.69%	- 460	- 448
FR	La Banque Postale	13.07%	12.82%	13.66%	9.51%	8.85%	8.22%	- 484	- 460
GB	Barclays Plc	13.28%	13.32%	13.82%	8.52%	7.37%	7.28%	- 599	- 604
GB	Lloyds Banking Group Plc	14.06%	14.03%	15.96%	11.27%	9.22%	8.55%	- 551	- 548
GB	HSBC Holdings Plc	14.50%	14.62%	15.72%	10.67%	9.56%	9.42%	- 508	- 520
GB	The Royal Bank of Scotland Group Plc	15.91%	16.17%	18.50%	11.16%	9.90%	9.93%	- 597	- 623
HU	OTP Bank Nyrt.	15.21%	15.40%	16.11%	14.75%	13.87%	13.03%	- 218	- 237
IE	Bank of Ireland Group plc	15.82%	15.81%	16.23%	13.29%	12.14%	11.15%	- 467	- 467
IE	Allied Irish Banks Group plc	20.81%	20.80%	21.09%	17.65%	16.46%	14.81%	- 600	- 599
IT	UniCredit S.p.A.	13.73%	12.80%	13.76%	10.31%	9.58%	9.34%	- 438	- 346
IT	Intesa Sanpaolo S.p.A.	13.27%	13.24%	13.04%	10.80%	10.64%	10.40%	- 287	- 284
IT	Banco BPM S.p.A.	12.36%	13.94%	15.74%	9.93%	9.40%	8.47%	- 389	- 547
IT	Unione di Banche Italiane Società Per Azioni	11.56%	11.70%	12.49%	9.76%	9.25%	8.32%	- 324	- 338
NL	N.V. Bank Nederlandse Gemeenten	30.35%	29.45%	31.92%	21.99%	22.47%	22.33%	- 802	- 712
NL	ABN AMRO Group N.V.	17.70%	17.54%	19.70%	16.26%	15.65%	14.85%	- 285	- 269
NL	ING Groep N.V.	14.71%	14.53%	13.99%	11.47%	10.96%	10.70%	- 401	- 383

Country	Bank	Starting 2017	Starting 2017 restated	Baseline 2020	Adverse 2018	Adverse 2019	Adverse 2020	Delta Adverse 2020	Delta Adverse 2020 Restated
NL	Coöperatieve Rabobank U.A.	15.77%	15.58%	16.03%	12.02%	11.62%	11.44%	- 433	- 414
NO	DNB Bank Group	16.21%	16.18%	18.51%	13.55%	13.75%	15.03%	- 118	- 115
PL	Powszechna Kasa Oszczednosci Bank Polski SA	16.50%	16.45%	17.39%	15.79%	15.88%	15.93%	- 57	- 52
PL	Bank Polska Kasa Opieki SA	16.41%	16.60%	16.50%	15.85%	15.84%	15.47%	- 94	- 113
SE	Skandinaviska Enskilda Banken - group	19.35%	19.18%	22.02%	17.39%	16.38%	16.47%	- 289	- 272
SE	Nordea Bank - group	19.49%	19.34%	20.16%	17.10%	16.17%	16.68%	- 281	- 265
SE	Swedbank - group	24.61%	24.58%	27.30%	21.88%	21.98%	21.98%	- 263	- 260
SE	Svenska Handelsbanken - group	22.73%	22.61%	24.85%	21.01%	20.04%	19.53%	- 320	- 307

Table 4: Fully loaded CET1 capital ratios (%) and deltas to starting point (bps)

Country	Bank	Starting 2017	Starting 2017 restated	Baseline 2020	Adverse 2018	Adverse 2019	Adverse 2020	Delta Adverse 2020	Delta Adverse 2020 Restated
AT	Raiffeisen Bank International AG	12.71%	12.47%	13.61%	10.54%	10.08%	9.73%	- 298	- 273
AT	Erste Group Bank AG	12.95%	13.01%	13.13%	10.50%	9.57%	8.45%	- 450	- 456
BE	KBC Group NV	16.35%	15.96%	18.56%	14.63%	13.95%	13.60%	- 275	- 236
BE	Belfius Banque SA	15.88%	16.17%	17.67%	13.85%	13.58%	13.21%	- 267	- 296
DE	DZ BANK AG Deutsche Zentral-Genossenschaftsbank	13.74%	13.64%	14.33%	9.76%	9.25%	8.97%	- 477	- 467
DE	Landesbank Baden-Württemberg	15.67%	16.05%	16.03%	12.45%	11.28%	10.69%	- 498	- 536
DE	Deutsche Bank AG	14.03%	13.90%	13.45%	9.18%	8.25%	8.14%	- 589	- 576

## 2018 EU-WIDE STRESS TEST – RESULTS

Country	Bank	Starting 2017	Starting 2017 restated	Baseline 2020	Adverse 2018	Adverse 2019	Adverse 2020	Delta Adverse 2020	Delta Adverse 2020 Restated
DE	Commerzbank AG	14.12%	13.34%	14.36%	10.64%	10.15%	9.93%	- 419	- 341
DE	Norddeutsche Landesbank - Girozentrale -	11.92%	12.89%	13.57%	8.75%	7.78%	7.07%	- 485	- 582
DE	Bayerische Landesbank	15.30%	15.36%	15.46%	12.82%	10.78%	9.44%	- 585	- 592
DE	Landesbank Hessen-Thüringen Girozentrale AdöR	15.19%	16.04%	16.15%	11.70%	10.08%	9.96%	- 523	- 608
DE	NRW.BANK	41.65%	41.65%	39.92%	35.72%	34.75%	33.96%	- 769	- 769
DK	Danske Bank	17.53%	17.28%	16.17%	13.18%	12.52%	11.97%	- 556	- 532
DK	Jyske Bank	16.35%	16.01%	16.57%	12.83%	12.13%	11.69%	- 466	- 432
DK	Nykredit Realkredit	20.61%	20.47%	21.96%	18.72%	15.80%	15.63%	- 498	- 484
ES	Banco Santander S.A.	10.84%	10.61%	13.87%	8.51%	8.88%	9.20%	- 164	- 141
ES	Banco Bilbao Vizcaya Argentaria S.A.	11.04%	10.73%	12.72%	8.44%	8.58%	8.80%	- 224	- 193
ES	CaixaBank, S.A.	11.65%	11.50%	13.60%	9.45%	9.53%	9.11%	- 254	- 239
ES	Banco de Sabadell S.A.	12.79%	12.03%	12.89%	8.41%	8.06%	7.58%	- 521	- 446
FI	OP Financial Group	20.10%	20.20%	21.25%	18.49%	16.90%	15.28%	- 481	- 491
FR	BNP Paribas	11.68%	11.52%	12.54%	9.08%	8.78%	8.64%	- 304	- 288
FR	Groupe Crédit Agricole	14.88%	14.58%	16.33%	11.93%	10.75%	10.21%	- 467	- 437
FR	Société Générale S.A.	11.39%	11.24%	11.83%	7.98%	7.72%	7.61%	- 378	- 363
FR	Group Crédit Mutuel	17.42%	17.23%	18.81%	15.12%	14.13%	13.18%	- 424	- 405
FR	Groupe BPCE	15.25%	15.13%	17.24%	12.28%	11.26%	10.68%	- 457	- 445
FR	La Banque Postale	13.41%	13.16%	13.66%	9.51%	8.85%	8.22%	- 519	- 494
GB	Barclays Plc	13.28%	12.94%	13.56%	6.93%	6.00%	6.37%	- 691	- 657
GB	Lloyds Banking Group Plc	14.06%	13.75%	15.71%	7.48%	6.78%	6.80%	- 725	- 694
GB	HSBC Holdings Plc	14.50%	14.51%	15.64%	9.89%	9.14%	9.18%	- 532	- 533
GB	The Royal Bank of Scotland Group Plc	15.91%	16.17%	18.50%	9.89%	9.48%	9.92%	- 598	- 625
HU	OTP Bank Nyrt.	15.21%	14.87%	15.83%	13.65%	12.83%	12.40%	- 281	- 246

## 2018 EU-WIDE STRESS TEST – RESULTS

Country	Bank	Starting 2017	Starting 2017 restated	Baseline 2020	Adverse 2018	Adverse 2019	Adverse 2020	Delta Adverse 2020	Delta Adverse 2020 Restated
IE	Bank of Ireland Group plc	13.82%	13.61%	15.13%	8.68%	8.58%	8.93%	- 489	- 468
IE	Allied Irish Banks Group plc	17.48%	17.03%	18.69%	13.19%	12.64%	11.83%	- 565	- 520
IT	UniCredit S.p.A.	13.61%	12.68%	13.76%	10.32%	9.58%	9.34%	- 427	- 334
IT	Intesa Sanpaolo S.p.A.	12.87%	11.85%	12.28%	9.76%	9.74%	9.66%	- 320	- 219
IT	Banco BPM S.p.A.	11.92%	11.20%	14.32%	7.03%	7.01%	6.67%	- 525	- 453
IT	Unione di Banche Italiane Società Per Azioni	11.43%	11.20%	12.22%	8.88%	8.54%	7.46%	- 397	- 374
NL	N.V. Bank Nederlandse Gemeenten	30.80%	29.76%	31.92%	21.99%	22.47%	22.33%	- 846	- 742
NL	ABN AMRO Group N.V.	17.65%	17.53%	19.70%	16.25%	15.65%	14.85%	- 280	- 267
NL	ING Groep N.V.	14.68%	14.51%	13.99%	11.47%	10.96%	10.70%	- 399	- 381
NL	Coöperatieve Rabobank U.A.	15.50%	15.34%	16.03%	12.01%	11.62%	11.44%	- 406	- 390
NO	DNB Bank Group	16.56%	16.53%	18.51%	13.55%	13.75%	15.03%	- 153	- 150
PL	Powszechna Kasa Oszczednosci Bank Polski SA	16.25%	15.91%	16.89%	15.39%	15.52%	15.62%	- 64	- 30
PL	Bank Polska Kasa Opieki SA	16.43%	15.99%	16.14%	14.40%	14.39%	14.55%	- 188	- 144
SE	Skandinaviska Enskilda Banken - group	19.35%	19.18%	22.02%	17.39%	16.38%	16.47%	- 289	- 272
SE	Nordea Bank - group	19.49%	19.34%	20.16%	17.10%	16.17%	16.68%	- 281	- 265
SE	Swedbank - group	24.61%	24.58%	27.30%	21.88%	21.98%	21.98%	- 263	- 260
SE	Svenska Handelsbanken - group	22.73%	22.61%	24.85%	21.01%	20.04%	19.53%	- 320	- 307

Table 5: Transitional leverage ratios (%) and deltas to starting point (bps)

Country	Bank	Starting 2017	Starting 2017 restated	Baseline 2020	Adverse 2018	Adverse 2019	Adverse 2020	Delta Adverse 2020 (bps)	Delta Adverse 2020 Restated (bps)
AT	Raiffeisen Bank International AG	6.12%	5.99%	6.66%	5.38%	5.25%	5.18%	- 93	- 81
AT	Erste Group Bank AG	6.55%	6.59%	6.82%	5.56%	5.17%	4.67%	- 189	- 193
BE	KBC Group NV	6.08%	6.05%	6.88%	5.72%	5.72%	5.75%	- 32	- 30
BE	Belfius Banque SA	5.59%	5.66%	6.20%	4.93%	4.89%	4.82%	- 77	- 84
DE	DZ BANK AG Deutsche Zentral-Genossenschaftsbank	4.61%	4.63%	4.72%	3.69%	3.58%	3.44%	- 117	- 119
DE	Landesbank Baden-Württemberg	4.96%	5.09%	4.93%	4.21%	3.85%	3.54%	- 142	- 154
DE	Deutsche Bank AG	4.13%	4.10%	3.91%	3.09%	2.90%	2.79%	- 134	- 131
DE	Commerzbank AG	5.51%	5.14%	5.30%	4.23%	4.13%	4.07%	- 144	- 107
DE	Norddeutsche Landesbank - Girozentrale -	3.41%	3.49%	3.45%	2.41%	2.14%	1.88%	- 153	- 161
DE	Bayerische Landesbank	4.04%	4.06%	4.10%	3.55%	3.16%	2.80%	- 124	- 127
DE	Landesbank Hessen-Thüringen Girozentrale AdöR	4.88%	5.11%	5.05%	4.30%	3.94%	3.60%	- 128	- 151
DE	NRW.BANK	11.41%	11.41%	11.50%	11.23%	11.15%	11.06%	- 35	- 35
DK	Danske Bank	4.41%	4.40%	4.32%	3.87%	4.00%	3.90%	- 51	- 50
DK	Jyske Bank	5.42%	5.32%	5.52%	4.58%	4.50%	4.42%	- 100	- 90
DK	Nykredit Realkredit	4.80%	4.77%	5.08%	4.57%	4.41%	4.45%	- 35	- 32
ES	Banco Santander S.A.	5.28%	5.28%	6.43%	4.60%	4.68%	4.78%	- 51	- 51
ES	Banco Bilbao Vizcaya Argentaria S.A.	6.62%	6.58%	7.67%	5.62%	5.92%	6.06%	- 56	- 52

## 2018 EU-WIDE STRESS TEST – RESULTS

Country	Bank	Starting 2017	Starting 2017 restated	Baseline 2020	Adverse 2018	Adverse 2019	Adverse 2020	Delta Adverse 2020 (bps)	Delta Adverse 2020 Restated (bps)
ES	CaixaBank, S.A.	5.54%	5.48%	6.28%	4.62%	4.45%	4.52%	- 102	- 96
ES	Banco de Sabadell S.A.	4.97%	5.00%	5.27%	4.07%	3.79%	3.54%	- 143	- 146
FI	OP Financial Group	7.85%	7.88%	8.30%	7.35%	6.87%	6.35%	- 150	- 153
FR	BNP Paribas	4.68%	4.59%	4.99%	3.86%	3.82%	3.80%	- 88	- 78
FR	Groupe Crédit Agricole	5.62%	5.53%	6.26%	4.85%	4.61%	4.42%	- 120	- 112
FR	Société Générale S.A.	4.30%	4.25%	4.50%	3.40%	3.33%	3.33%	- 98	- 92
FR	Group Crédit Mutuel	6.58%	6.54%	7.12%	6.06%	5.76%	5.45%	- 113	- 110
FR	Groupe BPCE	5.05%	5.00%	5.81%	4.16%	3.89%	3.73%	- 132	- 127
FR	La Banque Postale	4.53%	4.46%	4.83%	4.00%	3.85%	3.67%	- 86	- 79
GB	Barclays Plc	4.79%	4.81%	4.86%	3.88%	3.55%	3.46%	- 134	- 135
GB	Lloyds Banking Group Plc	5.12%	5.12%	5.65%	4.41%	3.95%	3.78%	- 134	- 133
GB	HSBC Holdings Plc	5.91%	5.95%	6.43%	5.17%	4.93%	4.69%	- 122	- 127
GB	The Royal Bank of Scotland Group Plc	5.82%	5.90%	6.78%	5.07%	4.88%	4.83%	- 99	- 106
HU	OTP Bank Nyrt.	9.27%	9.26%	10.20%	9.34%	9.00%	8.64%	- 64	- 62
IE	Bank of Ireland Group plc	7.03%	7.02%	7.37%	6.38%	5.99%	5.57%	- 146	- 145
IE	Allied Irish Banks Group plc	11.94%	11.93%	12.14%	10.31%	9.76%	9.06%	- 289	- 287
IT	UniCredit S.p.A.	5.73%	5.40%	5.71%	4.61%	4.50%	4.52%	- 121	- 89
IT	Intesa Sanpaolo S.p.A.	6.42%	6.41%	6.29%	5.58%	5.48%	5.35%	- 107	- 106
IT	Banco BPM S.p.A.	5.59%	5.46%	6.05%	3.96%	3.84%	3.48%	- 211	- 198
IT	Unione di Banche Italiane Società Per Azioni	5.85%	5.38%	5.73%	4.51%	4.26%	3.97%	- 188	- 141
NL	N.V. Bank Nederlandse Gemeenten	3.49%	3.42%	3.72%	2.87%	2.98%	3.02%	- 47	- 40
NL	ABN AMRO Group N.V.	4.03%	4.01%	4.58%	3.96%	4.04%	4.03%	- 0	2

Country	Bank	Starting 2017	Starting 2017 restated	Baseline 2020	Adverse 2018	Adverse 2019	Adverse 2020	Delta Adverse 2020 (bps)	Delta Adverse 2020 Restated (bps)
NL	ING Groep N.V.	4.65%	4.62%	4.59%	3.95%	4.02%	4.02%	- 63	- 60
NL	Coöperatieve Rabobank U.A.	6.03%	5.98%	6.01%	5.26%	5.12%	4.97%	- 106	- 101
NO	DNB Bank Group	6.90%	6.89%	7.73%	6.39%	6.57%	6.77%	- 13	- 12
PL	Powszechna Kasa Oszczednosci Bank Polski SA	10.54%	10.54%	11.13%	10.13%	10.18%	10.21%	- 33	- 33
PL	Bank Polska Kasa Opieki SA	9.79%	9.75%	9.76%	9.40%	9.39%	9.16%	- 63	- 59
SE	Skandinaviska Enskilda Banken - group	5.24%	5.16%	5.89%	5.01%	5.07%	5.18%	- 6	2
SE	Nordea Bank - group	5.20%	5.17%	5.17%	4.98%	5.05%	5.23%	3	6
SE	Swedbank - group	5.25%	5.23%	5.90%	5.29%	5.35%	5.45%	21	22
SE	Svenska Handelsbanken - group	4.57%	4.58%	5.06%	4.66%	4.73%	4.81%	24	23

Table 6: Fully loaded leverage ratio (%) and deltas to starting point (bps)

Country	Bank	Starting 2017	Starting 2017 restated	Baseline 2020	Adverse 2018	Adverse 2019	Adverse 2020	Delta Adverse 2020	Delta Adverse 2020 Restated
AT	Raiffeisen Bank International AG	6.08%	5.99%	6.66%	5.38%	5.25%	5.18%	- 90	- 81
AT	Erste Group Bank AG	6.58%	6.62%	6.82%	5.55%	5.16%	4.66%	- 192	- 196
BE	KBC Group NV	6.06%	6.01%	6.88%	5.72%	5.72%	5.75%	- 31	- 25
BE	Belfius Banque SA	5.52%	5.66%	6.20%	4.93%	4.89%	4.82%	- 70	- 84
DE	DZ BANK AG Deutsche Zentral-Genossenschaftsbank	4.35%	4.35%	4.60%	3.46%	3.41%	3.33%	- 102	- 102
DE	Landesbank Baden-Württemberg	4.61%	4.72%	4.75%	3.83%	3.58%	3.36%	- 124	- 136
DE	Deutsche Bank AG	3.80%	3.77%	3.73%	2.81%	2.63%	2.61%	- 118	- 115

## 2018 EU-WIDE STRESS TEST – RESULTS

Country	Bank	Starting 2017	Starting 2017 restated	Baseline 2020	Adverse 2018	Adverse 2019	Adverse 2020	Delta Adverse 2020	Delta Adverse 2020 Restated
DE	Commerzbank AG	5.14%	4.78%	5.21%	4.04%	3.99%	3.98%	- 116	- 80
DE	Norddeutsche Landesbank - Girozentrale -	3.08%	3.22%	3.41%	2.26%	2.04%	1.83%	- 125	- 139
DE	Bayerische Landesbank	4.03%	4.05%	4.09%	3.54%	3.15%	2.78%	- 125	- 126
DE	Landesbank Hessen-Thüringen Girozentrale AdöR	4.51%	4.78%	4.92%	4.05%	3.75%	3.47%	- 104	- 131
DE	NRW.BANK	11.39%	11.39%	11.51%	11.23%	11.15%	11.06%	- 32	- 32
DK	Danske Bank	4.40%	4.34%	4.28%	3.66%	3.77%	3.69%	- 71	- 65
DK	Jyske Bank	5.32%	5.22%	5.48%	4.50%	4.44%	4.38%	- 94	- 84
DK	Nykredit Realkredit	4.78%	4.75%	5.08%	4.57%	4.41%	4.45%	- 33	- 30
ES	Banco Santander S.A.	5.02%	4.90%	6.29%	4.12%	4.30%	4.48%	- 54	- 42
ES	Banco Bilbao Vizcaya Argentaria S.A.	6.53%	6.36%	7.53%	5.38%	5.59%	5.78%	- 74	- 58
ES	CaixaBank, S.A.	5.33%	5.28%	6.30%	4.43%	4.46%	4.54%	- 80	- 74
ES	Banco de Sabadell S.A.	4.95%	4.71%	5.07%	3.52%	3.41%	3.25%	- 170	- 146
FI	OP Financial Group	7.79%	7.82%	8.28%	7.29%	6.83%	6.32%	- 146	- 150
FR	BNP Paribas	4.65%	4.54%	4.99%	3.82%	3.81%	3.80%	- 84	- 74
FR	Groupe Crédit Agricole	5.50%	5.42%	6.13%	4.69%	4.45%	4.29%	- 121	- 112
FR	Société Générale S.A.	4.11%	4.07%	4.50%	3.28%	3.33%	3.33%	- 78	- 74
FR	Group Crédit Mutuel	6.41%	6.37%	7.02%	5.89%	5.62%	5.34%	- 107	- 103
FR	Groupe BPCE	5.00%	4.95%	5.79%	4.11%	3.86%	3.71%	- 129	- 124
FR	La Banque Postale	4.63%	4.57%	4.83%	4.00%	3.85%	3.67%	- 96	- 90
GB	Barclays Plc	4.48%	4.39%	4.66%	3.02%	2.88%	2.96%	- 152	- 143
GB	Lloyds Banking Group Plc	4.92%	4.84%	5.60%	3.05%	3.04%	3.17%	- 175	- 167
GB	HSBC Holdings Plc	5.58%	5.59%	6.24%	4.58%	4.53%	4.44%	- 114	- 115
GB	The Royal Bank of Scotland Group Plc	5.30%	5.37%	6.26%	4.10%	4.20%	4.30%	- 100	- 107
HU	OTP Bank Nyrt.	9.27%	8.89%	9.93%	8.42%	8.10%	8.04%	- 123	- 84

## 2018 EU-WIDE STRESS TEST – RESULTS

Country	Bank	Starting 2017	Starting 2017 restated	Baseline 2020	Adverse 2018	Adverse 2019	Adverse 2020	Delta Adverse 2020	Delta Adverse 2020 Restated
IE	Bank of Ireland Group plc	6.21%	6.12%	6.96%	4.38%	4.44%	4.61%	- 160	- 151
IE	Allied Irish Banks Group plc	10.30%	10.05%	11.10%	8.04%	7.83%	7.56%	- 275	- 249
IT	UniCredit S.p.A.	5.55%	5.22%	5.66%	4.50%	4.42%	4.46%	- 109	- 76
IT	Intesa Sanpaolo S.p.A.	6.12%	5.66%	5.89%	4.98%	4.98%	4.95%	- 117	- 71
IT	Banco BPM S.p.A.	5.26%	4.26%	5.48%	2.75%	2.81%	2.71%	- 256	- 155
IT	Unione di Banche Italiane Società Per Azioni	5.78%	5.14%	5.61%	4.09%	3.92%	3.55%	- 223	- 159
NL	N.V. Bank Nederlandse Gemeenten	3.53%	3.45%	3.72%	2.87%	2.98%	3.02%	- 51	- 43
NL	ABN AMRO Group N.V.	4.04%	4.02%	4.58%	3.96%	4.04%	4.03%	- 1	1
NL	ING Groep N.V.	4.46%	4.42%	4.42%	3.72%	3.79%	3.85%	- 61	- 57
NL	Coöperatieve Rabobank U.A.	5.41%	5.37%	5.72%	4.68%	4.68%	4.67%	- 74	- 69
NO	DNB Bank Group	6.90%	6.89%	7.73%	6.39%	6.57%	6.77%	- 13	- 12
PL	Powszechna Kasa Oszczednosci Bank Polski SA	10.39%	10.17%	10.80%	9.86%	9.93%	9.99%	- 40	- 18
PL	Bank Polska Kasa Opieki SA	9.80%	9.46%	9.54%	8.53%	8.53%	8.62%	- 118	- 84
SE	Skandinaviska Enskilda Banken - group	5.24%	5.16%	5.89%	5.01%	5.07%	5.18%	- 6	2
SE	Nordea Bank - group	5.07%	5.03%	5.17%	4.98%	5.05%	5.23%	16	19
SE	Swedbank - group	5.20%	5.18%	5.85%	5.24%	5.30%	5.41%	21	22
SE	Svenska Handelsbanken - group	4.49%	4.49%	5.06%	4.57%	4.73%	4.81%	32	32



**EUROPEAN BANKING AUTHORITY**

---

Floor 46 One Canada Square, London E14 5AA

---

Tel. +44 (0)207 382 1776

Fax: +44 (0)207 382 1771

---

E-mail: [info@eba.europa.eu](mailto:info@eba.europa.eu)

---

<http://www.eba.europa.eu>