EUROPEAN CENTRAL BANK

BANKING SUPERVISION

2025 stress test of euro area banks

Final results

Contents

Executive summary

ECB Banking Supervision has concluded its 2025 solvency stress test for euro area significant institutions.[1] A total of 51 significant institutions directly supervised by the ECB took part in the EU-wide stress test coordinated by the European Banking Authority (EBA) in cooperation with the European Systemic Risk Board (ESRB), the ECB and national competent authorities. At the same time, a further 45 significant institutions directly supervised by the ECB participated in the parallel stress test coordinated by the ECB. The exercise applies a common analytical framework across all participating institutions.

The stress test results are used to assess the ability of euro area banks to withstand financial and economic shocks. Taking 2024 year-end data as a starting point, the stress test analyses how each institution's capital position would evolve over the next three years (2025-27) under a baseline and a hypothetical adverse scenario. The forward-looking perspective makes the stress test a key tool for supporting risk identification and promoting a better understanding of potential vulnerabilities in the financial system. The exercise provides supervisory authorities, significant institutions and market participants with results allowing them to compare and assess the resilience of euro area credit institutions to a set of scenario-specific shocks. This "what if" perspective is particularly relevant given the current situation of heightened global political and economic uncertainty, which complicates the task of forecasting the most likely macroeconomic developments.

Under the adverse scenario, an aggravation of geopolitical tensions disrupts trade channels and ultimately lowers global economic growth. The adverse scenario depicts an escalation of geopolitical tensions coupled with inward-looking trade policies that give rise to higher energy and commodity prices and a fragmentation of the global supply system. Arguably, the recent discussions around tariffs have made the adverse scenario even more pertinent. It nevertheless remains reflective of a severe but plausible economic downturn. As a result of the scenario's geopolitical components, the global and euro area economies are negatively affected by heightened uncertainty and a loss of confidence, culminating in a significant contraction in real economic growth. The inflationary impact is relatively muted as upward pressure due to higher input prices is partially offset by downward pressure due to lower demand. Market interest rates are assumed to rise, triggering higher volatility and significant corrections in financial asset prices and real estate valuations.

The implementation of the Basel III rules through the revised Capital Requirements Regulation (CRR3)[2], which entered into force on 1 January 2025,

1 The supervisory stress tests are intended not to replace but to complement an institution's internal stress tests. These internal stress tests must be based on the institution's own methodologies and scenarios, which are tailored to assessing the institution's ability to absorb adverse macro-financial developments given the institution's risk profile and vulnerabilities.

2 Regulation (EU) 2024/1623 of the European Parliament and of the Council of 31 May 2024 amending Regulation (EU) No 575/2013 as regards requirements for credit risk, credit valuation adjustment risk, operational risk, market risk and the output floor (OJ L, 2024/1623, 19.6.2024).

has implications for the way in which the results of the 2025 stress test are expressed. The 2025 stress test takes these implications into consideration.[3] The new rules provide for a revision of the regulatory approaches used to calculate the risk exposure amount (REA) and introduce the "output floor" limiting the potential benefit of using internal models for the calculation of risk weights. Participating banks were required to provide values restated in accordance with the CRR3 as the year-end 2024 starting points. It is important to note that some of the CRR3 provisions are subject to transitional arrangements that will be gradually phased out by 2033. The "fully loaded" figures are based on the assumption that the new rules are implemented in full. However, they do not take into account the ability of banks to adjust their balance sheets over the coming years. Consequently, unless stated otherwise, the stress test outcomes for the 2025-27 scenario horizon are expressed in transitional terms in this report.

Under the adverse scenario, banks project losses of €628 billion from deteriorating credit, market and operational risk, an increase of €80 billion compared with the 2023 stress test.[4] This translates into an overall Common Equity Tier 1 (CET1) ratio depletion of 8.1 percentage points, compared with 7.8 percentage points in the 2023 stress test. Loan loss provisions and REA increase substantially in CET1 ratio terms, by 5.0 and 1.1 percentage points respectively, as the adverse macroeconomic shocks affect borrowers' debt servicing capacity and recovery rates. In the adverse scenario, the system-level ratio of non-performing exposures (NPEs) to total exposures would increase from 1.7% at end-2024 to 5.8% at end-2027, thus reaching levels last seen in 2014. Market risk contributes 1.3 percentage points to CET1 ratio depletion, mainly reflecting fair value changes in other comprehensive income and counterparty credit risk (CCR) losses related to derivatives transactions. Finally, operational risk further reduces the CET1 capital ratio by around 0.6 percentage points.[5]

Solid profitability is projected to cushion banks against losses to some extent. Net revenues constitute 4.8 percentage points under the adverse scenario, acting as a buffer against the projected losses.[6] This compares with a net revenues contribution of 3.5 percentage points in the 2023 stress test.

The capital build-up over the past decade further supports bank resilience. The capital levels observed in the euro area confirm the increasing strength of the banking sector since the inception of the Single Supervisory Mechanism (SSM) in 2014. Starting from a level of 11.1% at year-end 2013, the aggregate CET1 ratio increased by 4.9 percentage points to 16.0% at year-end 2024 (Chart 1). The stressed CET1 ratio under the adverse scenario increased gradually over this period.

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3 Regulatory changes related to the fundamental review of the trading book (FRTB) are not captured in the stress test as they had been deferred at the time the 2025 stress test methodology was finalised.

4 In the 2023 stress test, the accumulated losses from credit, market and operational risks amounted to €548 billion.

5 Various capital effects reduce the system-level CET1 ratio by another 0.1 percentage points.

6 Net revenues are here defined as the sum of net trading income, net interest income, net fees and commission income minus administrative expenses.

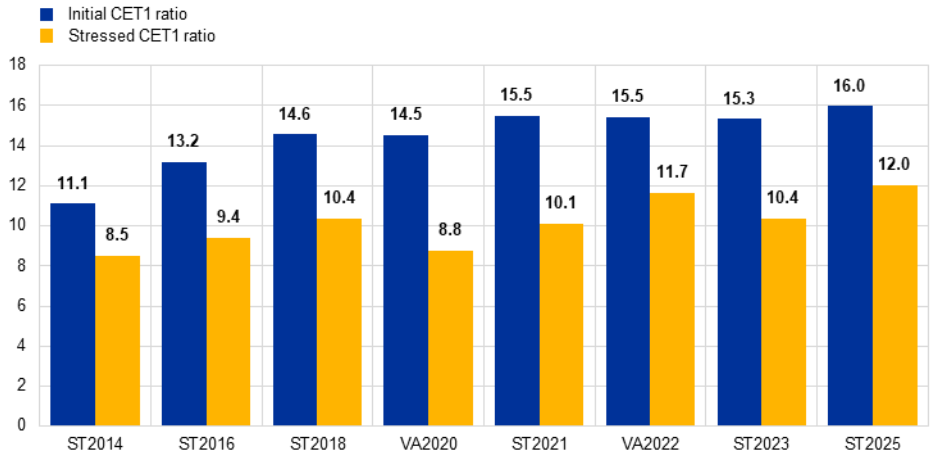
Thus, the stressed CET1 ratio in the 2025 stress test is 3.5 percentage points higher than in the 2014 ECB Comprehensive Assessment.[7]

Chart 1

Evolution of system-level CET1 ratios before and after stress in supervisory stress test exercises conducted in the EU

Aggregate CET1 capital ratio at the starting point and end of the three-year adverse scenario

(percentages of REA)



Sources: EU-wide stress test submissions, ECB and ECB calculations.
Notes: ST stands for the EU-wide stress test based on projections computed by banks in a bottom-up fashion, with the exercise being coordinated by the EBA and carried out in cooperation with the ECB, the ESRB, the European Commission and the competent authorities from all relevant national jurisdictions in the EU. VA stands for vulnerability analysis, which is a desktop exercise conducted by the ECB. The exercise does not include interactions with banks but is based on top-down stress test models developed by the ECB that employ banks' supervisory reporting data. The initial CET1 ratio refers to the ratio at the end of the year preceding the stress test or vulnerability analysis (e.g. for the 2025 stress test, the initial CET1 ratio at system level is the ratio as of 31 December 2024). The stressed CET1 ratio is the ratio resulting under the respective adverse scenario at the end of the respective three-year scenario horizon (e.g. for the 2025 stress test, this refers to the ratio at year-end 2027).

Accordingly, euro area significant institutions would experience, in aggregate, a non-negligible capital depletion were the adverse scenario to materialise. At aggregate level, the CET1 ratio depletion of euro area significant institutions at the end of the three-year stress test horizon under the adverse scenario would be 4.0 percentage points. This compares with a CET1 ratio increase of 1.1 percentage points in the baseline. The maximum depletion during the three-year stress test horizon is estimated at 4.2 percentage points. This reflects that several banks experience the strongest decline in the CET1 ratio in the first year of the scenario, while the ratio recovers in subsequent years as balance sheets have stronger income generation capacity.

7 There is some variation over time in the CET1 ratio depletion under the adverse scenario. This is largely due to varying degrees of scenario severity in the different exercises. However, the upward trend in the stressed CET1 ratio is clearly noticeable.

Table 1

Summary of the key results of the 2025 stress test and the 2023 stress test

	Initial CET1 ratio (at start of three-year scenario horizon)	CET1 ratio after three years (baseline)	CET1 ratio after three years (adverse scenario)	Lowest CET1 ratio in three years (adverse scenario)	Cumulative losses[8] over three years (adverse scenario)
2023 stress test	15.3%	16.4%	10.4%	10.3%	€548 billion
2025 stress test	16.0%	17.1%	12.0%	11.8%	€628 billion

The CET1 ratio depletion is somewhat lower in the 2025 exercise compared with the 2023 stress test results. The 2023 stress test resulted in a system-level CET1 ratio depletion of 5.0 percentage points (see Table 1).[9] The lower depletion in this year's stress test is mainly driven by improved profitability, allowing banks to better absorb the adverse shocks over the stress test horizon. Moreover, differences in the scenarios between the two exercises may also have contributed to the different depletion outcomes, with certain shocks being to some extent more pronounced in the 2025 exercise (e.g., EU real GDP) while other shocks are less severe (e.g., many financial variables and non-EU real GDP).

Overall, the stress test reveals that the euro area banking sector is resilient against a severe but plausible economic downturn. The system-level CET1 ratio would stand at 12.0% in the adverse scenario and 17.1% in the baseline at the end of the projection horizon. The leverage ratio would drop to 5.0% by the end of 2027 in the adverse scenario, while in the baseline it would increase to 6.5%. The 2025 stress test confirms the increasing resilience of the banking sector since the inception of the SSM in 2014. Overall, this outcome suggests that current capital buffers are supportive of the euro area banking sector's ability to withstand significant adverse shocks.

The 2025 stress test took place against a backdrop of significant macro-financial uncertainty, reinforcing the case for continued prudence in capital planning and in the way results are interpreted. While the stress test gives a positive picture of the soundness of the euro area banking sector overall, the heightened uncertainty surrounding the global economic and geopolitical outlook suggests that the results need to be put into a broader context. Accordingly, this report includes various sensitivity analyses that explore the vulnerabilities of euro area significant institutions to different realisations of key scenario variables compared with what is depicted in the adverse scenario. For instance, different future interest rate paths could lead to lower net interest income generation, while higher tariffs may lead to an exacerbation of loan losses in particularly vulnerable sectors. In addition, the risk sensitivity of banks' stress test models may have become increasingly affected by banks' extensive use of overlays to their credit risk models, reflecting difficulties in accounting for the exceptional macroeconomic

8 The cumulative losses are losses from credit risk, market risk and operational risk over the three projection years.

9 The CET1 ratio depletion both in transitional (396 basis points) and fully loaded (329 basis points) terms is somewhat lower in the 2025 exercise, compared to the 2023 stress test results (497 basis points in transitional terms, 478 basis points in fully loaded terms). However, owing to the introduction of the CRR3/CRD6 banking package, the results are not fully comparable across the two exercises.

circumstances observed in recent years. Overlays are not necessarily problematic, provided they are sufficiently risk sensitive and implemented under a robust governance framework.[10]

Under the adverse scenario, a number of banks would dip into prudential buffers. A total of 24 banks would be subject to dividend restrictions in at least one year of the projection horizon as they would breach the maximum distributable amount (MDA) trigger point.[11] Four banks would not meet their legally binding total Supervisory Review and Evaluation Process (SREP) capital requirement (TSCR)[12] and/or leverage ratio (LR) requirement.[13] The stress test results therefore show the importance of maintaining solid capital levels including releasable buffers above minimum requirements. Crucially, as the stress test is not a "pass or fail" exercise, any capital deficiencies identified will inform the SREP for each institution.

ECB Banking Supervision has identified several qualitative findings concerning banks' stress test capabilities. Overall, participating banks delivered stress test submissions of sufficient quality, but deficiencies in internal information systems and risk data aggregation and reporting (RDAR)[14] still prevail at many euro area significant institutions. During the 2025 exercise, the ECB strengthened its review of insufficiently prudent submissions[15]. This included conducting short-term quality assurance visits to selected banks. After the stress test, selected institutions may also face more in-depth on-site inspections focusing on their stress testing capabilities.

The stress test informs the ongoing supervisory dialogue with institutions. Any qualitative deficiencies will inform the governance part of SREP and may therefore influence how Pillar 2 requirements (P2R) are determined. Qualitative findings identified in the stress test include weaknesses in some banks' modelling approaches as well as RDAR capabilities. Meanwhile, the quantitative results will be considered when setting Pillar 2 guidance (P2G) and the leverage ratio P2G (P2G-LR). After the exercise, bank-specific vulnerabilities revealed by the stress test, as well as modelling deficiencies, will be followed up as part of the regular supervisory dialogue.

The exercise is designed to strengthen market discipline and support financial stability. The publication of bank-level results enables market participants to compare how the common shocks in the scenario affect the balance sheets of

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10 See McCaul and Walter (2023).

11 In line with Article 141, CRD6.

12 The total TSCR is composed of the Pillar 1 minimum own funds requirement as specified in Article 92(1)(a) to (c) of Regulation (EU) No 575/2013 and the bank-specific additional own funds requirement (Pillar 2 requirement – P2R) determined in the SREP in accordance with the criteria specified in the EBA Guidelines on SREP.

13 This compares with 53 banks breaching the MDA trigger point and nine banks breaching the TSCR in the adverse scenario of the 2023 stress test in at least one year of the projection horizon.

14 RDAR is part of the SSM supervisory priorities for 2025-27 and focuses on the need for banks to remedy persistent material shortcomings in an effective and timely manner.

15 See de Guindos and Elderson (2025).

individual institutions. Market confidence is in turn fostered and supported by a transparent publication approach.[16]

The stress test does not consider broader macro-financial amplification effects, given the microprudential nature of the exercise. The exercise assesses the direct transmission of macro-financial risks to individual banks, assuming that they keep their balance sheet unchanged over the stress test horizon. This means, among other things, that the impact of banks' reactions on the real economy or on other financial institutions is not considered in the exercise. Such elements will be captured by a subsequent complementary analysis conducted by the ECB's macroprudential function. In addition, certain non-financial risks (such as cyberattacks) are covered only to a limited extent.[17]

The 2025 stress test was accompanied by a CCR exploratory scenario **analysis.** The aim of the analysis was to investigate the ability of selected significant institutions to model CCR under diverse stress conditions, which helps better understand the vulnerabilities stemming from interlinkages between the banking sector and non-bank financial institutions (NBFIs). The analysis suggests that banks' stressed CCR exposures net of collateral are particularly sizeable vis-à-vis non-financial corporations and NBFIs domiciled in the United States (US). In addition, a scenario of euro depreciation against major foreign currencies tends to lead to higher CCR losses compared with a scenario of declining interest rates. At the same time, stressed wrong way risk, which measures the degree of positive correlation between the exposure towards a counterparty and its default risk, appears to be relatively limited at the current juncture. The CCR exploratory scenario analysis will not have any direct capital implications. Findings from the exercise will feed into the regular supervisory dialogue with participating institutions.

16 For the banks participating in the EU-wide stress test coordinated by the EBA, the publication of bank-specific results is defined by the EBA transparency templates. The ECB publishes a less detailed information package for the banks in its parallel stress test, which contains high-level bank-specific results. These include ranges for the minimum CET1 ratio under the adverse scenario, along with selected metrics. This approach ensures transparency, while accounting for the results of banks with special business models.

17 Banks' ability to withstand a cyberattack was tested in the 2024 SSM cyber resilience stress test.

Introduction

The 2025 stress test of euro area banks serves as a key tool for evaluating the resilience of banks under adverse economic conditions, thus enhancing supervisory consistency, market transparency and discipline. It provides supervisors, banks and market participants with results based on a common analytical framework to assess how banks' capital positions would evolve under a hypothetical stress scenario. This forward-looking perspective supports risk identification and promotes a better understanding of potential vulnerabilities in the financial system.

ECB Banking Supervision uses the stress test to inform the Supervisory Review and Evaluation Process (SREP). The insights from the exercise feed into the SREP, contributing to the setting of P2G[18] and to broader supervisory judgement. The stress test is not a "pass or fail" exercise. Instead, the results help gauge whether banks would be able to maintain compliance with minimum and additional own funds requirements under the shocks assumed in the adverse scenario.

This stress test exercise assesses the resilience of 96 significant institutions, using two different samples. Out of these, 51 directly supervised significant institutions, referred to below as "EBA banks" or the "EBA sample", took part in the EU-wide stress test coordinated by the EBA in cooperation with the ESRB, the ECB and national competent authorities. At the same time, a further 45 directly supervised significant institutions took part in the parallel stress test coordinated by the ECB and relying on the same scenario and methodology (with some simplifications for proportionality reasons). These are referred to below as "SSM banks" or the "SSM sample". In terms of assets, euro area significant institutions taking part in the stress test account for 83% of the euro area banking sector assets, with the additional, smaller banks in the SSM sample accounting for around 7% of the total.

The baseline and the adverse macroeconomic scenario cover a three-year horizon for the period 2025-27. The narrative of the adverse scenario is built around the main financial stability risks relevant for the EU banking sector as identified by the ESRB, with a focus on elevated geopolitical tensions, potential macro-financial shocks and increased market volatility. These risks reflect severe but plausible events such as escalating conflicts, trade disruptions, asset overvaluations and cyber threats, all of which could amplify credit, market and balance sheet stress across sectors. While the scenario aligns with market expectations for risk-free rates and risk premia, it does not assume any specific policy actions under stressed

[18] The guidance on additional own funds (P2G) set out in Article 104b(3) of Directive 2013/36/EU (CRD) is a bank-specific recommendation that indicates the level of capital the ECB expects banks to maintain in addition to their binding capital requirements to ensure they can absorb potential losses resulting from adverse scenarios.

conditions. The baseline for EU countries is based on the December 2024 Eurosystem staff macroeconomic projections.[19]

The 2025 exercise is the first stress test to consider the implementation of the CRR3, which entered into force on 1 January 2025. Among other elements, the amended regulation restricts banks' use of internal models to compute risk-weighted exposures. Most these regulatory changes, however, will be subject to long-dated transitional arrangements with phase-in periods lasting up to 2033. In view of this, banks were required to provide their starting point capital data both according to their actual figures at end-2024 and according to their CRR3 restated figures, based on both transitional phase-in metrics and fully phased-in metrics.

The EU-wide stress test is mainly a bottom-up exercise, with a set of methodological constraints being prescribed in several key areas. Credit risk, market risk and operational risk rely on banks' own model-based projections, subject to certain constraints prescribed in the EBA stress test methodology and to thorough quality assurance by the ECB. An important change compared with the last stress test is that the projections of net interest income (NII) have been centralised for most instruments. This complements the top-down approach for net fee and commission income (NFCI), which was already centralised as part of the 2023 exercise. The NII centralisation resulted in a prescriptive application of the methodological approach and further contributed to reducing banks' efforts in projecting and reporting the required stress test results and ensured a higher degree of consistency across banks.

An ECB quality assurance process scrutinizes banks' submissions, their modelling approaches and other assumptions applied by banks. In the 2025 exercise, this also included selected onsite visits to specific banks. The interaction with banks has the purpose of fostering banks' own stress testing capabilities and ultimately ensuring that the final outcome is credible as input to the SREP. In practice, this often implies that there can be a material difference in CET1 ratio depletion between the banks' initial submission and the final, quality-assured outcome. In the 2025 stress test, the quality assurance process added a net 88 basis points to the system-level CET1 ratio depletion under the adverse scenario, increasing the depletion from 308 basis points to 396 basis points.

The 2025 EU-wide stress test provides important input for the SREP, and the findings of the stress test will be part of the ongoing supervisory dialogue. ECB Banking Supervision will use both the qualitative results (e.g. quality and timeliness of banks' submissions) and the quantitative results (e.g. capital depletion and banks' resilience to adverse market conditions) as input for the SREP. In this context, the stress test results will also be used when determining the supervisory capital requirements and guidance for banks.

[19] For non-euro area EU countries, the macro-financial baseline is based on the December 2024 projections of national central banks; for non-EU countries, it is based mainly on the projections set out in the October 2024 World Economic Outlook from the International Monetary Fund and on data from the Organisation for Economic Co-operation and Development.

In addition to the stress test, ECB Banking Supervision conducted a counterparty credit risk exploratory scenario (CCR-ES) analysis for a group of selected banks in the sample. Although this analysis has no impact on capital adequacy, it is intended to enable supervisors to assess (i) how well banks can model CCR under stressed market conditions and (ii) how vulnerable banks are as a result of interlinkages with non-bank financial intermediaries. The aggregate results of the CCR-ES analysis, which examines the sensitivity of the CCR exposures to stressed market conditions and the concentration of exposures across market segments and more vulnerable types of counterparties, are published in a separate dedicated report. In a nutshell, the application of multiple stress scenarios, which is a key feature of the CCR-ES exercise, can expose vulnerabilities that would not be detected if a single scenario approach were taken.

This report presents the main findings and final results of the 2025 stress test of euro area banks. It focuses on the aggregate results for the 96 significant institutions participating in the stress test exercises this year. The EBA publishes individual results for the 51 banks taking part in the EBA-coordinated exercise, while the ECB does the same for the 45 banks taking part in the ECB-coordinated exercise.

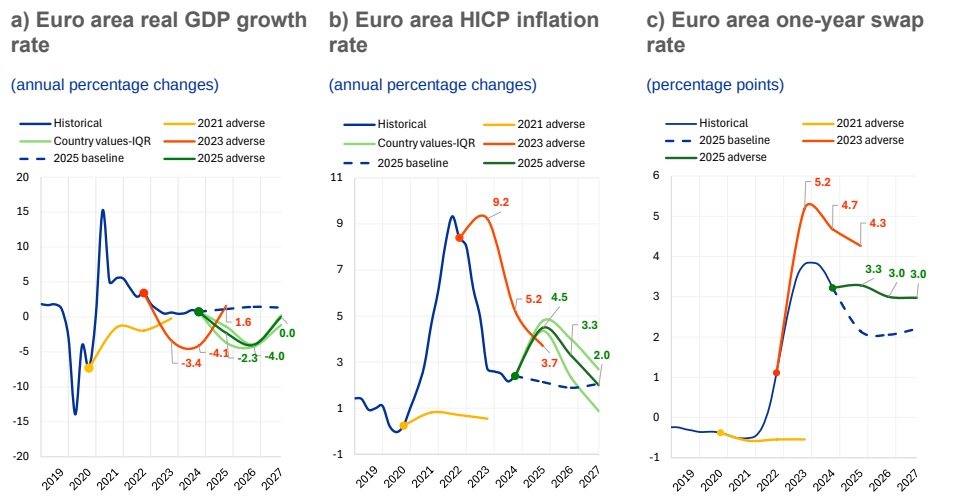
1 Scenarios

The 2025 adverse scenario features as its main driver an escalation of geopolitical tensions coupled with increasingly inward-looking trade policies, which contribute to a fragmentation of the global supply system. Trade fragmentation and renewed geopolitical tensions give rise to higher energy and commodity prices, as well as supply chain disruptions, culminating in a significant contraction in global economic growth. Large, negative and persistent trade and confidence shocks weigh heavily on the euro area economy, leading to notable and long-lasting reductions in real GDP growth, which fails to recover by the end of the scenario horizon in 2027 (Chart 1.1, panel a).[20] The drop in domestic demand is exacerbated by negative confidence shocks for both households and firms that ultimately result in a large increase in the unemployment rate, together with a fall in household consumption and overall domestic demand.

Increases in commodity prices – and particularly in energy prices – along with trade fragmentation and supply chain disruptions lead to higher input prices and trigger significant, albeit temporary, upward pressure on euro area inflation. While higher input prices push up inflation, their effect is mitigated by depressed demand and limited second-round effects, so that inflation returns to a level close to the baseline by the end of the horizon in 2027 (Chart 1.1, panel b).

Chart 1.1

Evolution of key macro-financial variables for the euro area in the stress test



Sources: ESRB and ECB computations.
Notes: Scenario starting points imposed on historical series. The starting points in 2024 represent annual averages. Panels a and b: the series present historical and scenario projections at euro area level (weighted by country-level GDP level). Country values – IQR refers to the 25th and 75th percentiles of the cross-country distribution. Panel b: HICP stands for Harmonised Index of Consumer Prices.

20 The baseline is based on the Eurosystem's December 2024 projections, while the adverse macro-financial scenario was designed by the ESRB's Task Force on Stress Testing in close collaboration with the ECB. The scenario was approved by the ESRB's General Board on 14 January 2025 and sent to the EBA on 15 January 2025. A more detailed description of the baseline and the adverse scenario for the 2025 exercise can be found on the EBA and ESRB websites.

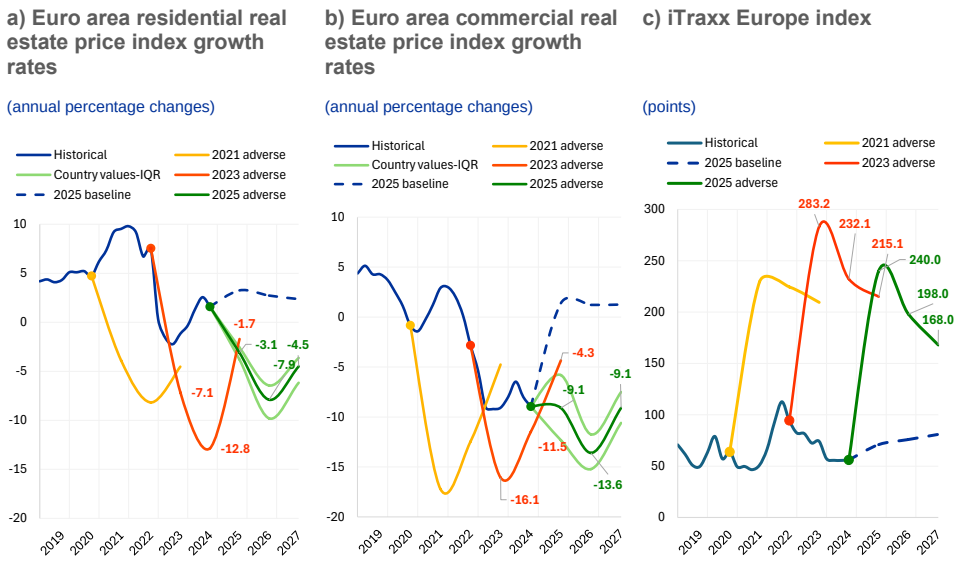
The increase in inflation leads to higher market interest rates, triggering corrections in asset prices. The mild increase in inflation triggers an upward shift in market expectations for short-term risk-free rates compared with the expected downward path under the baseline (Chart 1.1, panel c). Expectations of markedly lower interest rates and a soft landing recede.

The deterioration in the macro-financial environment reinforces private and public sector debt sustainability concerns. The escalation of geopolitical risk and the ensuing materialisation of macro-financial risks cause tighter credit conditions. The weakening economic environment amplifies pre-existing sovereign debt sustainability concerns stemming from high post-pandemic government debt levels and rising military expenditure due to geopolitical tensions. Debt sustainability concerns at non-financial corporations are reflected in a rise in corporate bond yields, particularly in those sectors with a high level of debt. The financial conditions in the adverse scenario tighten substantially, as indicated by the iTraxx Europe credit default swap (CDS) index (Chart 1.2, panel c).

The tighter financial conditions and reduction in households' incomes trigger a fall in real estate prices. Rising borrowing costs and reduced disposable income trigger a significant decline in demand for real state and a fall in property prices. The adverse impact of residential real estate (RRE) price shocks is, however, more pronounced in countries with higher RRE overvaluation (Chart 1.2, panel a). The pressure on the commercial real estate (CRE) market is particularly strong owing to adverse cyclical and structural factors related to deteriorating business sentiment, a negative profitability outlook and tightening credit standards. Price falls also reflect lower post-pandemic demand for some CRE assets, notably in the office segment (Chart 1.2, panel b).

Chart 1.2

Evolution of real estate prices and credit default swaps for the euro area in the stress test



Sources: ESRB and ECB computations.
Notes: Scenario starting points imposed on historical series. The starting points in 2024 represent annual averages. Panels a and b: the series present historical and scenario projections at euro area level (weighted by country-level GDP level). The country values – IQR refers to the 25th and 75th percentiles of the cross-country distribution. Panel c: the index shown is the iTraxx Europe CDS 5-year Corp Generic Index, which is referred to as "iTraxx Overall 5y" in the macro-financial scenario.

While the overall severity of the scenario is broadly comparable to that of the adverse scenario in the EBA 2023 exercise, there are important differences in the calibration of the specific shocks. In terms of the real economy, the cumulative GDP decline of 6.2% from the starting point is larger than in the previous exercise (-5.9%), reflecting the more negative impact of combined supply and demand shocks. The decline in GDP affects countries heterogeneously, resulting in different degrees of scenario severity for individual countries. At the same time, the scenario stipulates an increase in the unemployment rate and a deterioration in financial conditions, especially risk premia, which are both slightly less severe than in the EBA 2023 scenario, in line with the more muted upward shift in risk-free rates. Finally, the current outlook for policy continues to be characterised by an elevated degree of uncertainty, which may result in even more severe shock configurations than those envisaged in the adverse scenario. Box 3 presents a sensitivity analysis gauging the effects of more conservative assumptions on trade policy, while Box 5 presents a sensitivity analysis on net interest income based on different plausible interest rate paths.

2 Impact of the new CRR3 rules

As of 1 January 2025, banks in the EU must comply with the revised Capital Requirements Regulation (CRR3) rules. These new rules are reflected in the methodology and templates for the 2025 EU-wide stress test, requiring banks to restate their REA and thus their capital ratios at year-end 2024, which is the starting point of the exercise.[21] Some of the CRR3 provisions are subject to transitional arrangements that will be phased out over the coming years. This leads to differences between banks' restated transitional and fully loaded capital ratios, with the latter assuming the full implementation of the CRR3 and disregarding transitional arrangements.[22]

The CRR3 primarily implements into EU regulation the final elements of the global Basel III framework adopted by the Basel Committee on Banking Supervision (BCBS) in December 2017. The CRR3 provides for a revision of the regulatory standardised approaches used to calculate REA and curtails the impact of using internal models for the calculation of risk weights with the aim of reducing unwarranted variability in REA calculations across banks. These measures are accompanied by the introduction of the "output floor", a regulatory lower limit on the risk weights calculated by banks when employing their internal models. Although the risk sensitivity of internally modelled REA may be reduced by the output floor, the overall resilience of the banking sector will increase as more capital will be required for the same unit of risk than in the past. In addition, the risk sensitivity of the standardised approaches is enhanced by the CRR3 reforms, which in turn define the benchmark level for the output floor.

At system level, the day-one impact of the introduction of the CRR3 on the transitional CET1 ratio at year-end 2024 is small. The 96 banks in the 2025 stress test sample reported a 15.9% REA-weighted average CET1 capital ratio on a transitional basis as of December 2024 under the CRR2 rules still in force at the time. Restated under the CRR3 provisions, and taking applicable transitional arrangements into consideration, this figure remains virtually unchanged (Chart 2.1). The reduction in credit REA contributes +0.6 percentage points to the restatement effect, while the increase in operational REA has an offsetting effect of -0.4 percentage points on the transitional CET1 ratio. Owing to the CRR3 transitional arrangements in place, the output floor is phased in starting with 50% of the REA

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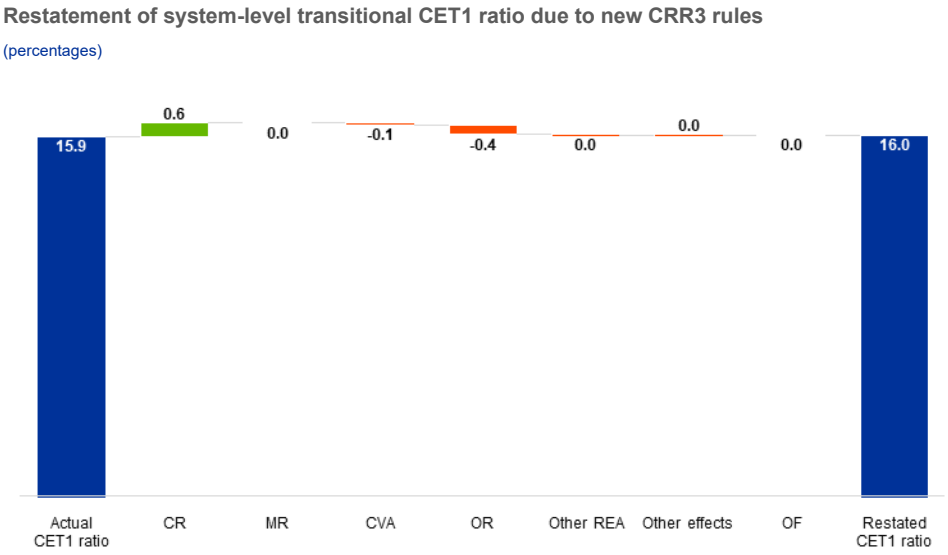
21 The stress test framework also takes into account that the application date for the fundamental review of the trading book (FRTB) standards in the EU for banks' calculation of own funds requirements for market risk has been postponed by one year to 1 January 2026, with the European Commission proposing in June 2025 to delay by a further year until 1 January 2027. Therefore, the new FRTB standards are not reflected in the 2025 stress test methodology. In any case, the EU-wide stress test should continue to be understood a risk exercise for capturing the economic sensitivity of banks' solvency to scenarios, and not as an exercise simply aimed at assessing the impact of regulatory changes.

22 Some rules under the transitional regime are envisaged to expire as late as 1 January 2033, as well as being subject to a potential extension by the European Commission. The decision on whether to extend the rules will be based on an interim evaluation of their use and appropriateness. This evaluation will be conducted by the end of 2028 in cooperation with the ECB and the EBA. The rules will therefore be applicable after the three-year forecasting horizon of the stress test that extends to 2027.

calculated using the standardised approaches as the value applicable for 2025 in the EU. This low starting floor value has no impact regarding the restatement of the 96 banks' REA and, thus, the system-level transitional CET1 ratio.

Chart 2.1

CRR3 restatement effect on transitional system-level CET1 ratio at end-2024

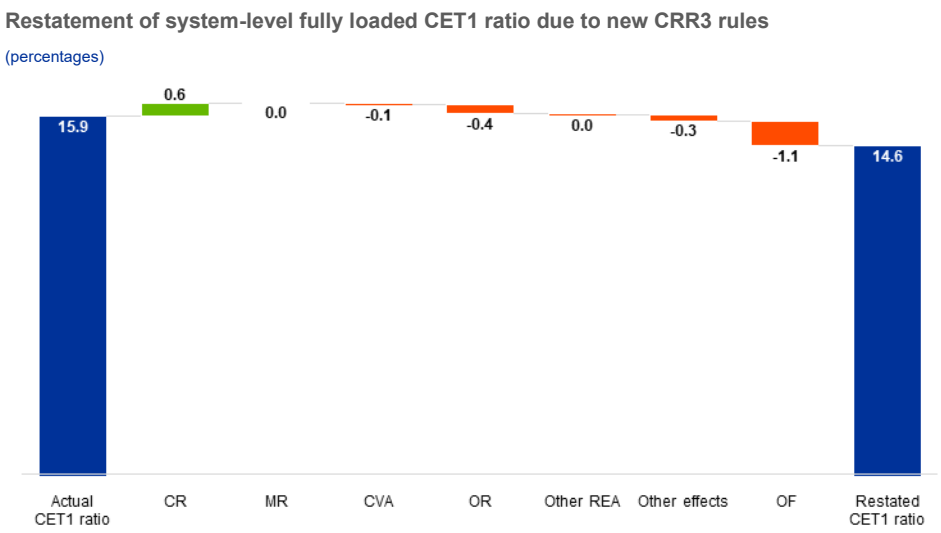


Sources: EU-wide stress test submissions, ECB and ECB calculations.
Notes: CR refers to credit risk exposure amount, MR refers to market risk exposure amount, CVA refers to credit valuation adjustment, OR refers to operational risk exposure amount, Other REA refers to other risk exposure amount, OF refers to output floor. "Other effects" refers to changes in CET1 capital, adjustments due to IFRS 9 transitional arrangements and transitional adjustments included in the computation of unfloored total risk exposure amount of an entity calculated in accordance with Article 92(4) of CRR3.

By contrast, on a fully loaded basis the introduction of the new regulation results in a 1.3 percentage point reduction in the system-level CET1 ratio at year-end 2024 (Chart 2.2). This is mainly due to the assumption that the output floor had already been fully phased in to its final value of 72.5%, while disregarding potential reactive measures banks might take during the long transition period. Accordingly, it is expected that even banks with a strong fully loaded impact on their CET1 ratio will have sufficient time to adjust their balance sheets well ahead of 2033, when the new regulation is scheduled to be fully phased in.

Chart 2.2

CRR3 restatement effect on fully loaded system-level CET1 ratio at end-2024



Sources: EU-wide stress test submissions, ECB and ECB calculations.
Notes: CR refers to credit risk exposure amount, MR refers to market risk exposure amount, CVA refers to credit valuation adjustment, OR refers to operational risk exposure amount, Other REA refers to other risk exposure amount, OF refers to output floor. Other effects refer to changes in CET1 capital and transitional adjustments included in the computation of unfloored total risk exposure amount of an entity calculated in accordance with Article 92(4) of CRR3.

At the level of the individual banks, the CRR3 restatement effect shows a considerable dispersion across the 96 banks participating in the stress test. This is true both on a transitional basis and on a fully loaded basis. On a transitional basis, 12 banks see their CET1 ratio at year-end 2024 increase by more than 2.0 percentage points under the CRR3 provisions, while for nine banks the ratio falls by more than 2.0 percentage points. In fully loaded terms, the CRR3 rules lead to an increase in the CET1 ratio at year-end 2024 of more than 2.0 percentage points for six banks, whereas 20 banks see their ratio fall by more than 2.0 percentage points.

As for some banks the denominator of the CET1 ratio increases under fully loaded terms it would, all else being equal, lead to a lower CET1 ratio depletion over the three projection years of the adverse scenario. This denominator effect on the CET1 ratio (i.e. higher risk-weighted assets) becomes more pronounced on a fully loaded basis which explains why fully loaded CET1 ratio depletion under the adverse scenario tends to be lower than depletion on a transitional basis.

The current report will focus on the transitional figures of the 2025 stress test for two reasons. First, the transitional figures are more comparable with both fully loaded and transitional figures from the 2023 stress test. Second, there is a very long phase-in period in place for the fully loaded regulation. Where relevant, fully loaded figures will also be shown for comparison. Nevertheless, it is important to note that fully loaded numbers do not take into account the ability of banks to adjust their balance sheets over the coming years in view of the new rules.

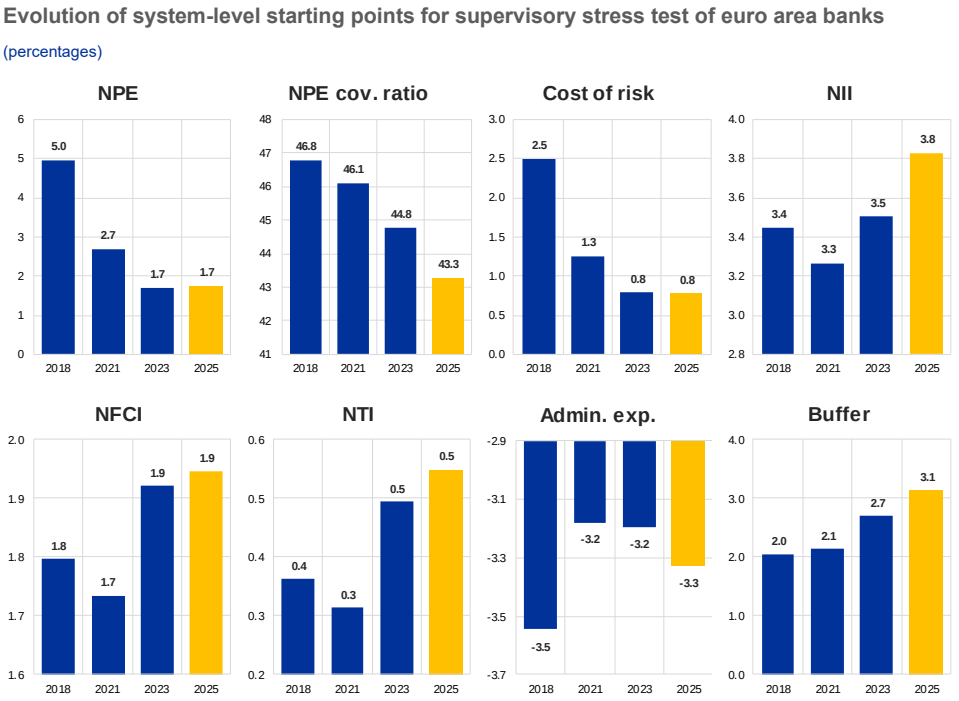
3 Overview of results

3.1 Overview of aggregate results and key drivers

Euro area banks entered the stress test with significantly improved balance sheets. As illustrated in Chart 3.1, the cost of risk (as measured by the stock of impairments for NPEs divided by the total exposures) has remained broadly unchanged at system level since the 2023 stress test. Over the same period, however, banks have continued to improve their income-generating capacity. Income has increased by more than administrative expenses, creating a growing profitability buffer to withstand shocks to the valuation of banks' assets.

Chart 3.1

Bank balance sheet and profit and loss indicators at the reference date



Sources: EU-wide stress test submissions, ECB and ECB calculations.
Notes: All starting point figures refer to the end of the year preceding the year shown when the stress test exercise was conducted (e.g. for the 2018 stress test, the starting points refer to end-2017). The figures are aggregates based on the individual submissions of all banks taking part in the supervisory stress test exercise conducted in the respective year shown. NPE in the chart indicates the ratio of non-performing exposures to total exposures; NPE cov. ratio indicates the ratio of NPE impairment stocks to non-performing exposures; Cost of risk is the product of NPE and the NPE cov. ratio and indicates the ratio of NPE impairment stocks to total exposures; NII indicates net interest income over REA; NFCI indicates net fee and commission income over REA; NTI indicates net trading income over REA; Admin. exp. indicates administrative expenses over REA; and Buffer indicates the sum of NII, NFCI, NTI and admin. exp. over REA. For NII, NFCI, NTI, Admin. exp. and Buffer, a division by REA at the end of the year preceding the stress test exercise is conducted (e.g. for the 2028 stress test the REA at year-end 2018 is used), with the transitional REA at year-end 2024 restated according to CRR3 rules being used for the 2025 stress test.

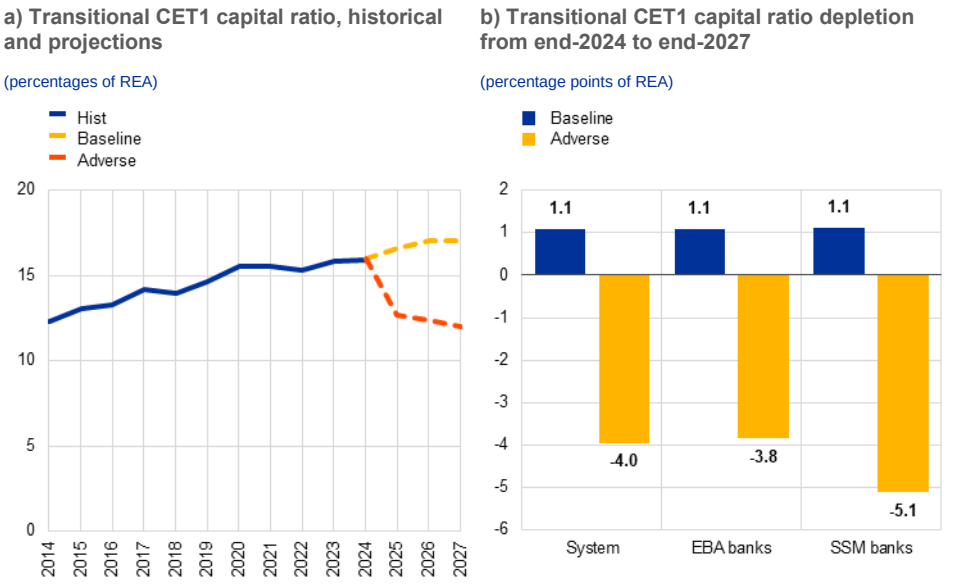
The results show that euro area significant institutions are resilient to a severe but plausible economic downturn, as represented by the adverse scenario. Under the adverse scenario, the cumulative losses projected by banks at system level coming from the deteriorating credit risk, market risk and operational risk areas stand at €628 billion. This represents an increase compared with the 2023 stress

test, when these accumulated losses amounted to €548 billion. Under the adverse scenario, the CET1 ratio drops to 12.0% (in transitional terms)[23] at the end of 2027, which represents a depletion of 4.0 percentage points. The CET1 ratio of 12.0% in the current exercise under the adverse scenario means that the capital build-up of significant institutions has continued, as the capital level in 2027 under the adverse scenario would be 1.6 percentage points above the corresponding level after stress at end-2025 in the 2023 exercise. Under the baseline, the capital position of banks is projected to increase further, with the aggregate CET1 ratio rising by 1.1 percentage points to reach a CET1 ratio of 17.1% (Chart 3.2, panel a).

Smaller banks included in the SSM sample show a higher depletion than banks in the EBA sample. The impact on the smaller institutions (SSM sample) under the adverse scenario is a reduction in the CET1 ratio of 5.1 percentage points compared with a reduction in the CET1 ratio of 3.8 percentage points for larger institutions (EBA sample) (Chart 3.2, panel b). The smaller depletion for EBA banks may be due, among other things, to their more sophisticated risk management approaches (including hedging strategies) and possibly also to diversification benefits. However, even if the depletion is higher for the SSM banks, their end-2027 CET1 ratio stands at 15.4% versus 11.7% for the EBA banks.

Chart 3.2

Historical evolution of CET1 ratio and projected CET1 ratio depletion



Sources: EU-wide stress test submissions, ECB and ECB calculations.

Compared with the baseline, the system-wide depletion under the adverse scenario is predominantly driven by a contraction in banks' income generation, as well as by losses related to credit and market risk (Chart 3.3). The adverse scenario implies rising funding costs on the liabilities side and rising interest rates on the assets side of banks' balance sheets, with the banks' net interest income (NII)-generating capacity declining by 2.6 percentage points in the

[23] All figures are expressed as transitional numbers below, unless stated otherwise.

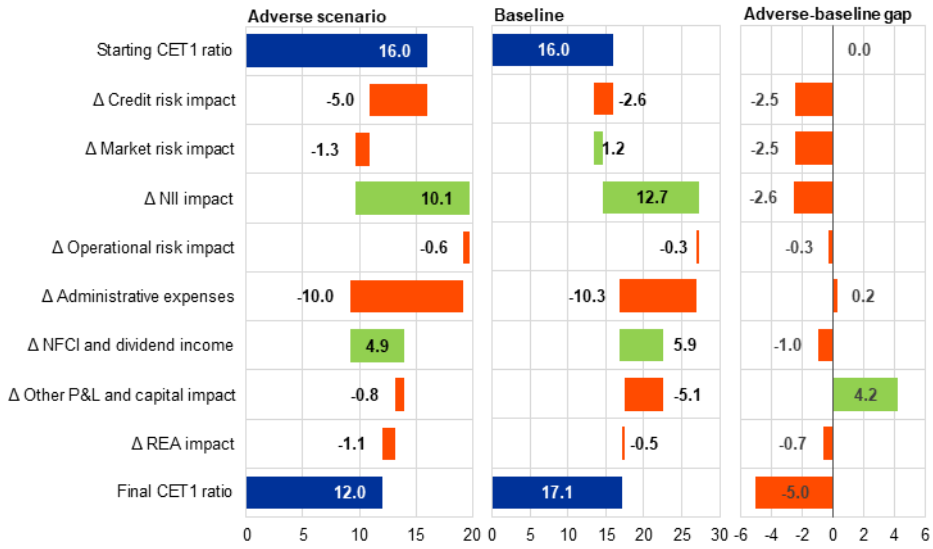
adverse scenario compared with the baseline. Net fee and commission income and dividend income drops by 1.0 percentage points in the adverse scenario compared with the baseline. Material increases in loan losses (credit risk) due to the deterioration in the macro-financial environment contribute 5.0 percentage points to the CET1 ratio depletion (2.5 percentage points more than in the baseline). Revaluation effects on banks' traded assets imply that market risk contributes 1.3 percentage points to the CET1 ratio depletion in the adverse scenario, corresponding to a drop of 2.5 percentage points under the adverse scenario relative to the baseline. Finally, changes in the risk exposure amount (REA) reduce the CET1 ratio by a further 1.1 percentage points under the adverse scenario.[24]

Chart 3.3

CET1 ratio depletion drivers

Risk areas affecting the change in the system-level transitional CET1 ratio from end-2024 to end-2027

(percentages and percentage points)



Sources: EU-wide stress test submissions, ECB and ECB calculations.
Note: Differences are due to rounding.

Most significant institutions reach their minimum CET1 ratio in the adverse scenario at the end of the three-year horizon (Chart 3.4, panel a). 59 banks experience their largest capital depletion at the end of the stress test horizon, whereas 33 banks show their largest capital depletion in the first year. This reflects the fact that some banks display stronger frontloading effects than others, while the recovery in income also differs across banks. The overall system-level CET1 ratio contraction, when accounting for the maximum depletion across banks measured in

[24] The notable difference in the depletion in other profit and loss and capital items between the adverse scenario (-0.8 percentage points) and the baseline (-5.1 percentage points) is mainly driven by downstream effects on capital due to lower tax payments when banks encounter losses and by lower payouts for dividends, Additional Tier 1 (AT1) coupons and variable remuneration (due to lower profits or banks hitting their MDA trigger point).

transitional terms, reaches 4.2 percentage points, which is 0.2 percentage points higher than at the end of the scenario horizon (Chart 3.4, panel b).[25]

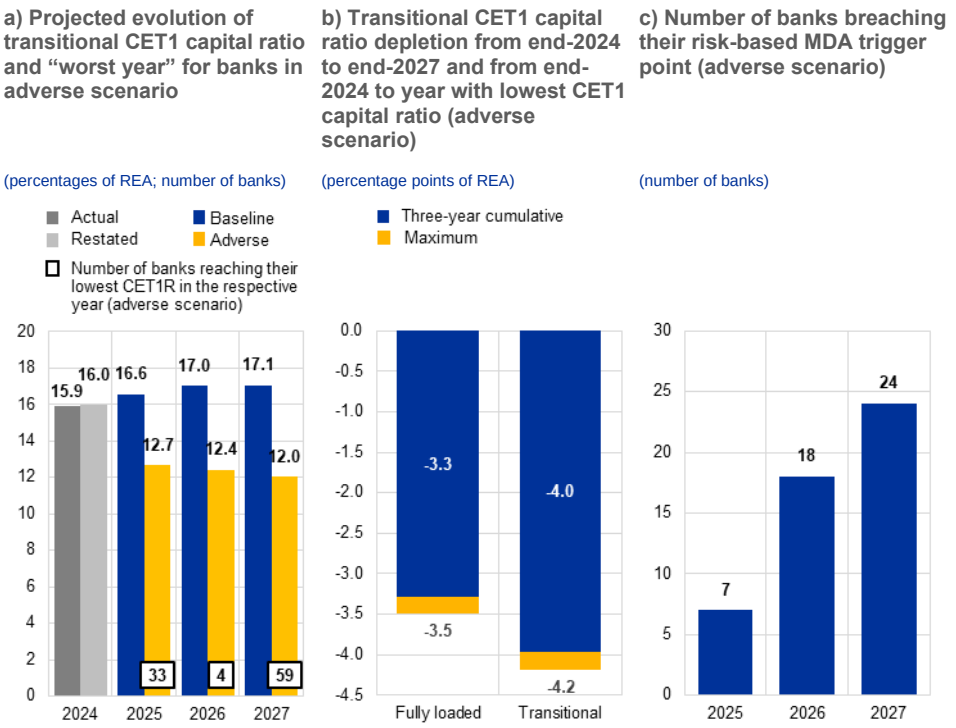
Some banks breach their risk-based maximum distributable amount (MDA) trigger point in the adverse scenario. Under the adverse scenario, 24 banks breach the risk-based MDA trigger point and thus face restrictions on distributions in connection with CET1 capital (including dividend payments, share buybacks, payments on Additional Tier 1 (AT1) instruments and payments of variable remuneration or discretionary pension benefits) in the final year of the scenario (Chart 3.4, panel c). This number is materially lower than in the 2023 exercise, where 51 banks faced restrictions in the last year of the stress test horizon. This primarily reflects the strong improvements in banks' balance sheets and profitability observed over the last two years. Nevertheless, four banks would not meet their total SREP capital requirements and/or leverage ratio requirements under the adverse scenario. On aggregate, the banks affected would require an additional €4.0 billion to restore capital levels in line with the respective capital requirements under the 2025 stress test adverse scenario.[26]

[25] In fully loaded terms, the maximum CET1 ratio depletion amounts to 3.5 percentage points.

[26] In accordance with the EBA's guidelines for common procedures and methodologies for the SREP and supervisory stress testing, capital shortfalls are evaluated separately for CET1, Additional Tier 1 and Tier 2 capital.

Chart 3.4

Projected evolution of transitional CET1 ratio depletion and number of banks breaching their risk-based MDA trigger point

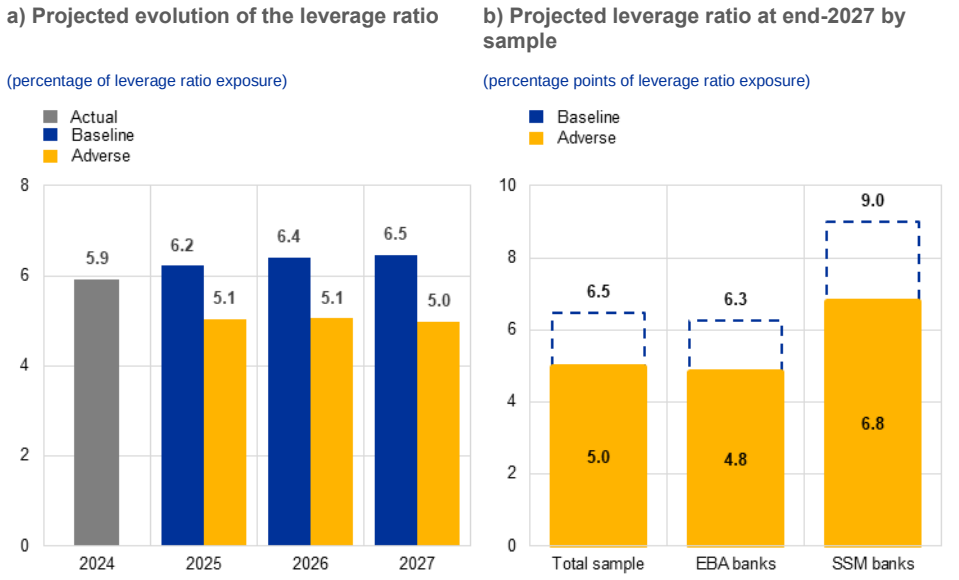


Sources: EU-wide stress test submissions, ECB and ECB calculations.
Notes: Panel a: Restated stands for the CET1 ratio in transitional terms at end-2024 that is restated under the CRR3 rules. CET1R stands for CET1 ratio. Panel c: number of banks that would breach their risk-based MDA trigger point under the adverse scenario in the respective year shown (independent of whether a breach in the risk-based MDA trigger point occurs in either of the other two projection years).

The leverage ratio declines in the adverse scenario, albeit not as sharply as the CET1 ratio (Chart 3.5, panel a). While the leverage ratio stands at 5.9% at the end of 2024, it drops to 5.1% in the first year of the adverse scenario but then remains virtually constant until 2027. In the baseline, the leverage ratio would increase gradually to reach 6.5% in 2027. The leverage ratio at the end of the scenario horizon is consistently higher for the SSM sample than for the EBA sample in both the baseline and the adverse scenario. For the EBA sample, the leverage ratio in the adverse scenario is slightly lower at 4.8% compared with the full sample. For the SSM sample it is 2.0 percentage points higher at 6.8% (Chart 3.5, panel b).

Chart 3.5

Projected leverage ratio depletion



Sources: EU-wide stress test submissions, ECB and ECB calculations.

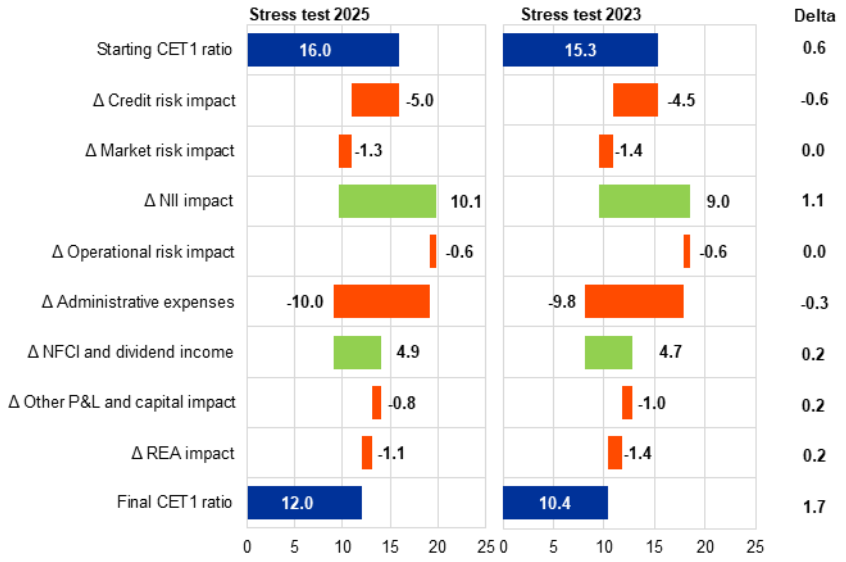
In the 2025 stress test, the CET1 ratio depletion in the adverse scenario is below the depletion observed in the 2023 exercise. Whereas the adverse CET1 ratio depletion in the 2023 exercise stood at 5.0 percentage points, it reaches 4.0 percentage points in the 2025 exercise (Chart 3.6). The main reason for this difference is the banks' strong income-generating capacity, with NII accounting for 1.1 percentage points of the improvement in the 2025 stress test, compared with the 2023 stress test. NFCI and dividend income are 0.2 percentage points higher in the 2025 exercise, while slightly higher administrative expenses pull in the other direction. The higher net profits more than compensate for slightly higher losses, with credit risk losses being 0.6 percentage points higher, while market risk losses, operational risk losses and the impact on REA are broadly the same as in the 2023 stress test.

Chart 3.6

Comparison of CET1 ratio impact and main drivers between the 2025 and 2023 stress tests (adverse scenario)

Risk areas affecting the change in the system-level transitional CET1 ratio over the three-year adverse scenario horizon

(percentages and percentage points)



Sources: EU-wide stress test submissions, ECB and ECB calculations.
Note: Differences are due to rounding.

Box 1

Capital depletion during stress episodes from a historical perspective

A recurrent question in the stress testing context is what can be considered a reasonable amount of adverse capital depletion. In principle, the stressed capital depletion should reflect the adverse scenario applied in the stress test.[27] According to the BCBS Stress Testing Principles, adverse scenarios "should be sufficiently severe but plausible" (p. 6). The principles state in addition that "consideration should be given to historical events and hypothetical future events that take into account new information and emerging risks in the present and foreseeable future".[28] This also emphasises the importance of accounting for uncertainty about the future economic outlook when discussing the resilience of banks.

The plausibility and relevance of the stress test outcome can be assessed by reviewing past historical episodes of stress. Against this background, this box surveys the evolution of euro area banks' capital depletion in the past 15 years, with a particular focus on the observed crisis episodes that are closest in nature to the scenarios that supervisors and banks are meant to reflect in their

27 The balance sheet structure and asset quality of banks, along with methodological prescriptions in the stress test are also important factors.

28 As regards banks' own stress test scenarios, the ECB Guide to the internal capital adequacy assessment process (ICAAP) states that "the institution is expected to assume exceptional, but plausible developments with an adequate degree of severity in terms of their impact on its regulatory capital ratios, in particular the CET1 ratio." Furthermore, the level of severity should reflect "developments that are plausible, but as severe from the institution's perspective as […] observed during a crisis situation in the markets, factors or areas that are most relevant for the institution's capital adequacy."

stress tests (i.e. severe but plausible). Those periods were often characterised by significant economic downturns similar to those typically considered in stress test adverse scenarios, such as in the aftermath of the global financial crisis or during the COVID-19 pandemic. In contrast to what is assumed in the supervisory stress test, capital depletion has often been mitigated in the past by fiscal and/or monetary policy measures as well as by banks' own management actions.[29]

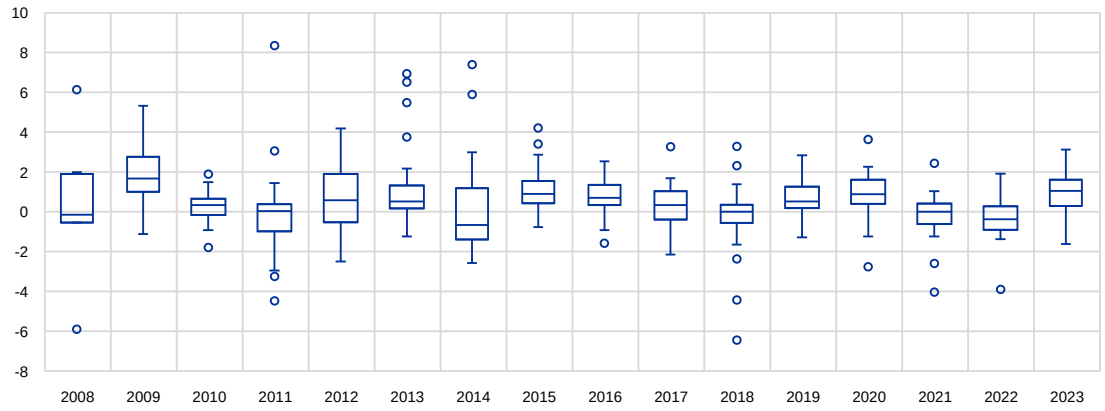
Despite the capital build-up in recent years, several episodes of considerable capital drawdowns have also been observed. The historical trend of changes in banking sector capitalisation across EU countries is depicted in Chart A. In almost all years, positive capital accretion was observed on average across EU countries. This reflects the push towards capital build-up over the period, driven by more stringent regulatory requirements (i.e. Basel III), more intrusive supervision and the significant capital injections that took place in selected national banking sectors during the euro area sovereign debt crisis. However, episodes of aggregate banking sector capital depletion also occurred on an annual basis in at least one jurisdiction within the euro area.

Chart A

Capital depletion in EU banking jurisdictions

2008-23, year-on-year change in Tier 1 capital ratio

(percentage points)



Sources: ECB consolidated banking data and ECB calculations.
Notes: The chart shows capital depletion aggregated at the level of domestic banking sectors within the EU. Domestic banking groups and stand-alone banks aggregated at jurisdiction level as classified in the consolidated banking data (CBD2) catalogue covering the EU-27 countries. In the boxplot, the box illustrates the interquartile range (IQR), spanning from the first quartile (Q1) to the third quartile (Q3). The whiskers extend to the furthest data point that lies within 1.5 times the IQR from the respective quartiles, specifically, up to Q3 + 1.5*IQR and down to Q1 – 1.5*IQR.

A median impact of around 230 basis points is observed when focusing specifically on the EU banking sectors that have experienced capital depletion, in a given year, over the last 15 to 20 years. The cross-country median of the maximum annual Tier 1 capital ratio[30] depletion for the period 2008-23 is recorded at 233 basis points. In certain periods, such as during the sovereign debt crisis and the global financial crisis, some EU banking sectors experienced even higher annual capital depletion reaching levels of around 500 basis points.

In most cases the capital drawdown was limited, but in some cases the depletion was material. In the period 2008-23, there were 122 episodes of capital depletion across EU banking

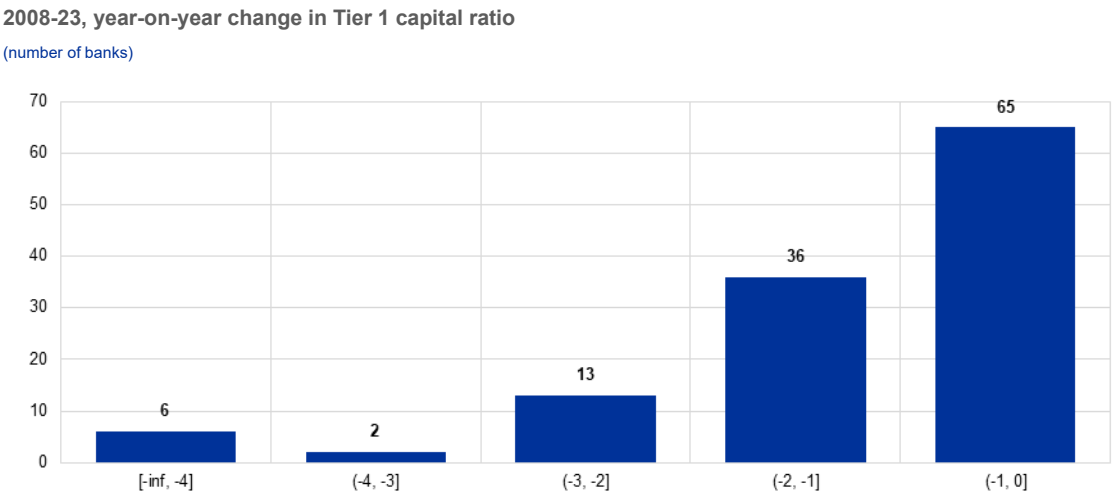
[29] See Darracq Pariès et al. (2020) and European Systemic Risk Board (2021).

[30] Owing to data availability constraints, the Tier 1 ratio was used as a proxy since Common Equity Tier 1 ratio figures were not available for the entire 15-year period.

sectors (Chart B). Specifically, over this period there were 21 instances where the yearly Tier 1 capital ratio depletion exceeded 200 basis points and eight cases where it exceeded 300 basis points or more.

Chart B

Number of annual capital depletion in EU banking sectors by depletion buckets



Sources: ECB consolidated banking data) and ECB calculations.

While some caution is appropriate when interpreting the figures, given that historical changes in capital ratios reflect a variety of factors, such as policy interventions and management actions, in addition to those included in the system-wide stress test, these considerations do not materially alter the overarching conclusions. The capital movements reported include mitigating actions such as capital injections, public support and asset deleveraging, which are typically excluded from supervisory stress tests because the balance sheet is assumed to remain static. Such effects, which are more common during times of high market stress, usually reduce the amount of observed capital depletion and can make it harder to compare the results with those of stress tests that do not incorporate management actions or policy interventions. Additionally, other non-stress-related factors, including regulatory and model changes, asset restructurings and mergers, can also influence capital ratios. Nonetheless, even after accounting for these nuances, the historical evidence broadly supports the plausibility of the capital depletions observed in recent EU-wide stress tests **–** which are generally in the range of 300 to 500 basis points **–** especially when viewed in the light of past crisis episodes where losses often exceeded that range and necessitated large-scale capital support across banking sectors.

3.2 Credit risk

Credit risk losses are a major contributor to banks' capital depletion under the adverse scenario. Under this scenario, cumulative credit risk losses over the three-year stress test horizon amount to €455 billion at system level, representing a 5.0 percentage point reduction compared with the aggregate CET1 capital ratio at year-end 2024 (restated according to the CRR3). Under the baseline, additional loan

losses in the amount of €232 billion level account for 2.6 percentage points of the total CET1 ratio depletion. The evolution of loan losses under the adverse scenario is determined by the assumed worsening in macroeconomic conditions, which leads to a deterioration in borrowers' debt servicing capacity and, in turn, increasing default rates. This is exacerbated by the severe downward shocks to real estate prices that depress recovery rates. The "NPL calendar" effect[31] accounts for 0.8 percentage points of the total CET1 ratio impact under the adverse scenario and for 0.9 percentage points under the baseline.[32]

Mounting loan losses under the adverse scenario would result in a notable increase in non-performing exposures (NPE). Since 2014, the share of NPEs in SSM banks' total exposures has been falling steadily. After bottoming out in 2022 at 1.7%, the NPE ratio at system level had risen only very slightly by the end of 2024 (Chart 3.7). In the stress test, under the adverse scenario banks project a steady increase in the NPE ratio to 5.8% at the end of 2027.[33]

[31] This is the deduction from CET1 capital of the expected applicable amount of cover for non-performing exposures as per Article 36(1)(m) of Regulation (EU) No 575/2013.

[32] Regulation (EU) 2019/630, a European banking law adopted in April 2019 and known as the "NPL backstop", requires banks to book minimum levels of provisions for NPLs based on a uniform provisioning calendar (the "NPL calendar"). If a bank has not booked sufficient provisions to cover its non-performing loans, it must correct the shortfall by deducting the missing amount from its capital. The NPL calendar effect is expected to lead to a larger capital impact under the baseline, as under the adverse scenario banks will project higher provisions based on their models, given the adverse economic conditions. As the minimum coverage requirement (NPL calendar) is mechanical and not dependent on the scenario, the higher adverse provisions will lead to a coverage ratio that is closer to the minimum requirement compared with the baseline.

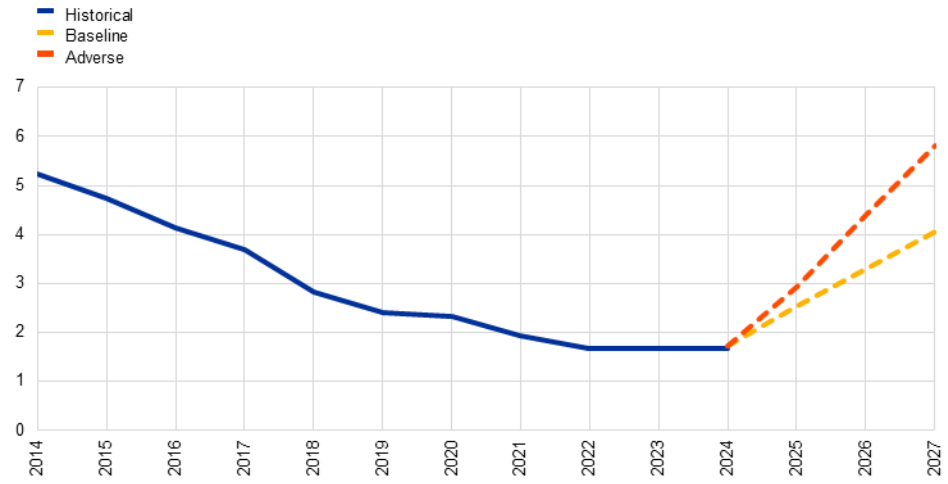
[33] The projections for the baseline must be seen in connection with the static balance sheet assumption stipulated by the 2025 EU-wide stress test – Methodological Note for both the baseline and the adverse scenario. According to this assumption, banks are not permitted to replace Stage 3 exposures, as no workout or cure of Stage 3 exposures is assumed. This means that for each bank new Stage 3 exposures in the three projection years are moved into the stock of Stage 3 exposures, thereby reducing the stock of the bank's Stage 1 and Stage 2 exposures while keeping its total exposures at a constant level.

Chart 3.7

NPE ratio at system level

Evolution of NPE ratio and stress test projections for SSM significant institutions

(percentages)



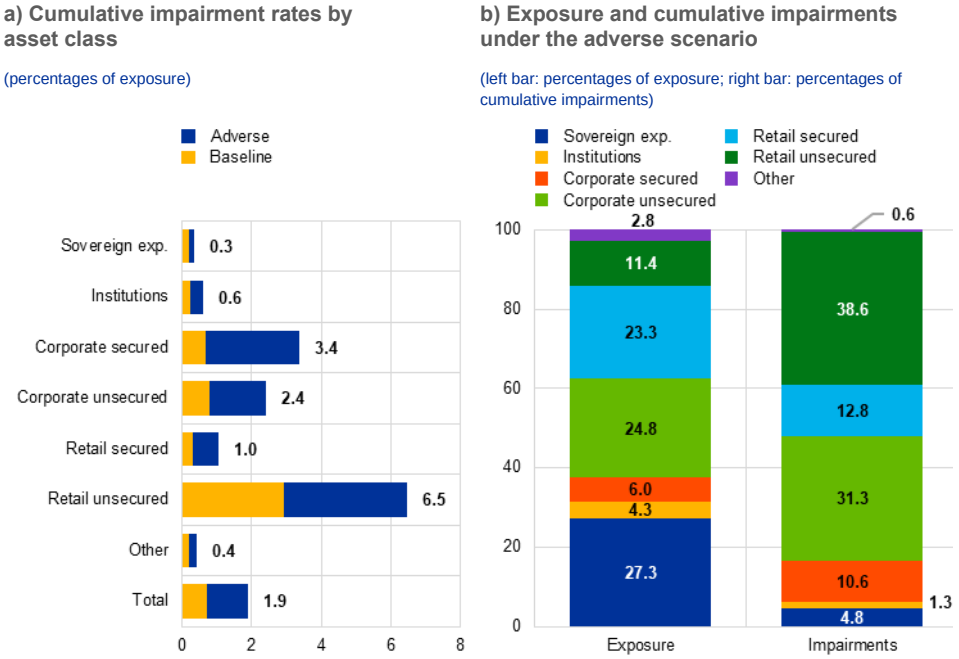
Sources: EU-wide stress test submissions, ECB and ECB calculations.
Note: NPE ratios are calculated as the Stage 3 exposures at the end of each year as a share of total exposures at the beginning of each year.

Under the adverse scenario, cumulative impairments are largely driven by unsecured exposures, both retail and corporate (Chart 3.8). While only accounting for 36% of the total exposures on the banks' balance sheets at system level, these portfolios account for 70% of total impairments for financial assets not measured at fair value. Unsecured retail exposures are the most vulnerable, with a cumulative impairment rate of 6.5%, which far exceeds that of other exposure classes. Secured portfolios, by contrast, make up around 29% of total exposures, but only generate around 23% of total impairments. Banks' exposures to central banks and governments ("sovereign exposures") and to financial institutions make up 32% of the portfolio at system level, representing a considerable share of the total. However, they only generate around 6% of impairments as they are categorised as "low default" under the credit risk framework.[34]

[34] According to the 2025 EU-wide stress test – Methodological Note, exposures subject to counterparty credit risk and positions measured at fair value (either through profit or loss or through other comprehensive income) are subject to the market risk approach, while only exposures measured at amortised cost are in the scope of loan loss projections under the credit risk assessment. This means that sovereign exposures are considered less risky than the rest of the portfolios from a pure credit risk perspective.

Chart 3.8

Credit risk exposures and loan loss projections by asset class



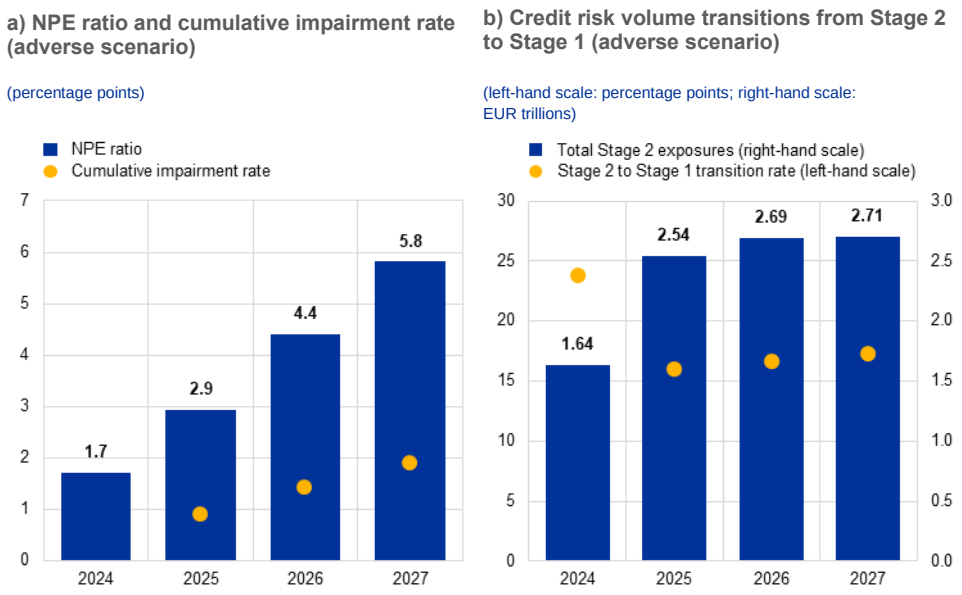
Sources: EU-wide stress test submissions, ECB and ECB calculations.
Notes: Cumulative impairment rates are calculated as the sum of three-year horizon impairment flows divided by the starting point exposures. Mapping was performed to combine exposures reported under the standardised approach (STA) and the internal ratings-based (IRB) approach asset classes. This means that corporate unsecured includes all IRB corporate exposures that are secured by real estate. IRB corporate exposures not secured by real estate property and STA corporate exposures are combined into corporate unsecured. Retail secured covers IRB retail exposures secured by real estate property and STA retail exposure secured by mortgages on immovable property. Retail unsecured contains all remaining unsecured exposures. Sovereign exposures include exposures to central banks and governments.

Under the adverse scenario, NPEs and Stage 2 ratios under IFRS 9 drive the increase in overall impairment rates as they experience a significant upward trend at system level. The NPE ratio increases by 4.1 percentage points[35] under the adverse scenario, in turn pulling up impairment rates (Chart 3.9, panel a). The share of Stage 2 exposures also increases significantly compared with the end-2024 starting level (Chart 3.9, panel b). However, the increase slows materially after the first of the three projection years, which could be due, among other things, to a recovery in exposures as they cure and migrate back to Stage 1.

[35] The NPE ratio is constrained by the 2025 EU-wide stress test – Methodological Note which does not allow exposures to cure once they reach default status (Stage 3 under IFRS 9). The projection can therefore be considered an upper bound.

Chart 3.9

Evolution of the aggregate NPE ratio, impairment rate and Stage 2 to Stage 1 transition rate in the adverse scenario



Sources: EU-wide stress test submissions, ECB and ECB calculations.
Notes: NPE ratios are calculated as the Stage 3 exposures at the end of each year as a share of total exposures at the beginning of each year. Impairment rates are calculated as the yearly impairment flows divided by the starting point total exposures.

Box 2

Overview of banks' stress testing methodologies for credit risk impairments as reported in the stress test model questionnaires

Banks provide information on the methodologies, data and assumptions used in their stress test credit risk models via dedicated questionnaires. As prescribed by the EBA stress test methodology, banks can choose to either apply the ECB benchmarks or rely solely on their own modelling for their stress test projections. The questionnaires, first introduced in 2018 and further expanded in coverage with this exercise, aim to investigate systematically how banks calculate their stressed credit risk impacts, especially when institution-specific models are employed. The questionnaires collect this information in a consistent and transparent way that ensures comparability. The ECB then uses the information to evaluate banks' submissions and support the quality assurance process.

Banks rely mainly on regression-based analysis for their modelling of impairments in non-financial corporation (NFC) portfolios. Based on the information submitted, around two-thirds of the questionnaires analysed refer to NFC portfolios, and around 20% of these refer to secured exposures. Regression analysis is the most commonly used technique for the modelling of probability of default (PD, 40% of cases) and loss given default (LGD, 30% of cases). PD models also frequently employ logit and structural methods[36] (Chart A, panel a), while LGD models usually rely on the workout LGD[37] concept, as well as a combination of LGD modelling approaches (Chart

[36] The modelling choice (linear regression, logit, Vasicek, etc.) is frequently related to the type of data in question (continuous, binary, etc.), the granularity of the available data (borrower, rating grade, portfolio level, etc.) and the target use (for example as part of a wider regulatory model).

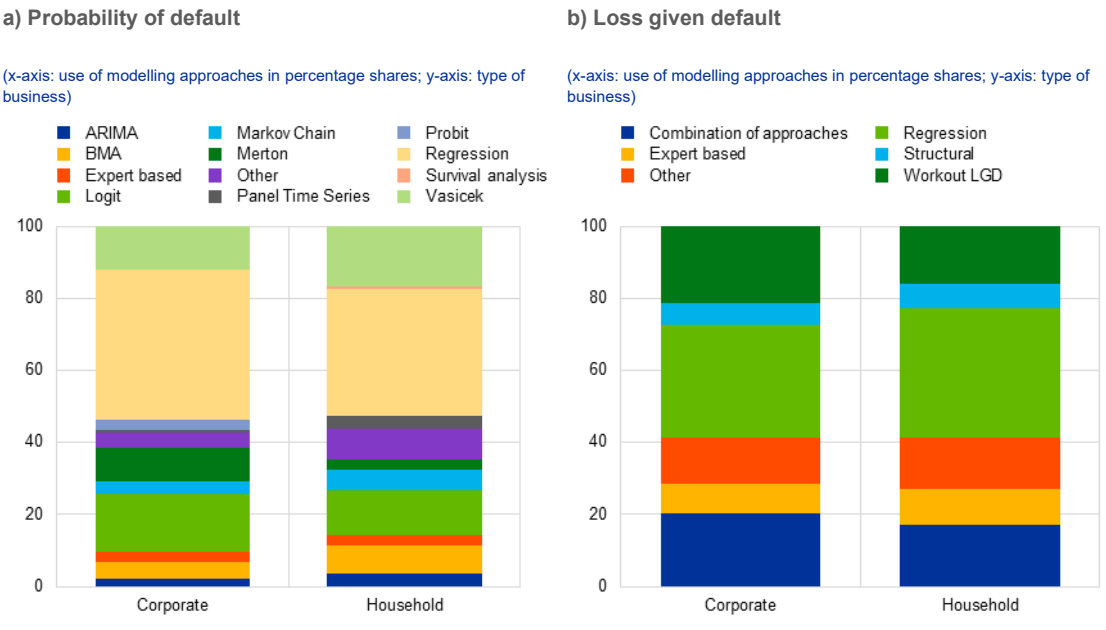
[37] Workout LGD is a common type of LGD modelling that estimates the actual loss incurred in the event of borrower default.

A, panel b). For secured exposures, logit-based PD models and combined LGD approaches are more prevalent compared with the overall sample. The level of model granularity varies between the two risk parameters: PD models are mostly estimated at the portfolio level (40%), with rating-grade, loan-level and borrower-level alternatives used to a lesser extent. By contrast, nearly two-thirds of LGD models are run at the loan level. These patterns hold across both secured and unsecured portfolios. Information on the forecast performance of banks' models according to their internal validation function is also submitted in the questionnaires. The information collected shows differences across banks and models in the way reviews are carried out, as well as differences in the frequency of validation.

Modelling practices for household portfolios broadly mirror those observed for NFC portfolios. Household model questionnaires account for around 35% of the questionnaires submitted, with 70% linked to house purchases. Again, regression analysis is the most common technique for the modelling of PDs and LGDs (35%). For PDs, logit and Vasicek[38] approaches are frequently applied as well (Chart A, panel a), while LGD modelling also often involves workout LGD and a combination of methodologies (Chart A, panel b). Regression-based approaches are prevalent across most business models, though notable exceptions include global systemically important banks (G-SIBs), which favour the Vasicek method for PD modelling, and retail lenders, which mainly apply workout LGD models. In addition, for household portfolios, the level of modelling granularity differs between PD and LGD projections. Portfolio-level modelling is the approach most often used for PDs, accounting for 50% of cases, with rating-grade and loan-level approaches also applied. Conversely, LGD projections are more frequently modelled at the loan level (around 50%), with portfolio-level approaches being the next most common (40%).

Chart A

Modelling approaches for stress testing impairments



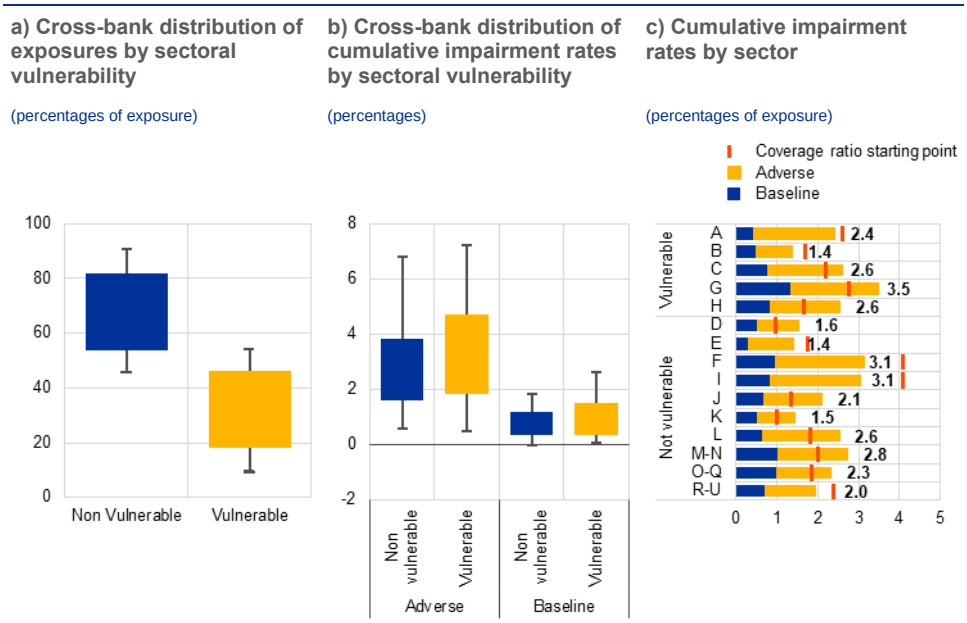
Sources: ECB credit risk model questionnaires, ECB staff computations.
Note: The most common modelling approaches for corporate and household PDs and LGDs are shown for both collateralised and non-collateralised exposures.

[38] Vasicek is a one-factor Gaussian structural model used in the calculation of credit risk parameters, also employed in regulatory capital calculations under Basel II and III.

In the stress test, banks were asked for sector-specific loan loss projections to account for different sectoral vulnerabilities that were predefined in the scenarios. At system level, the exposures to potentially vulnerable sectors[39] represent around 39% of total corporate exposures. However, these exposures vary widely across banks (Chart 3.10, panel a). Overall, exposures to potentially vulnerable sectors show somewhat higher impairment rates in the adverse scenario compared with those to less vulnerable sectors, albeit with a higher degree of dispersion across banks (Chart 3.10, panel b). Among the exposures to potentially vulnerable sectors, sectors G (wholesale and retail trade), A (agriculture, forestry and fishing), C (manufacturing) and H (transportation and storage) exhibit higher projected cumulative impairment rates in relative terms over the stress test horizon (Chart 3.10, panel c). At the same time, loan loss provisions in some sectors considered less vulnerable under the adverse scenario – in particular F (construction), I (accommodation and food service activities) and M/N (professional, scientific, technical, administrative and support service activities) – are also projected to be relatively high. However, this is driven by the generally higher risk levels of those sectors, as also observed in their higher coverage ratios.

Chart 3.10

Projection of sectoral loan losses



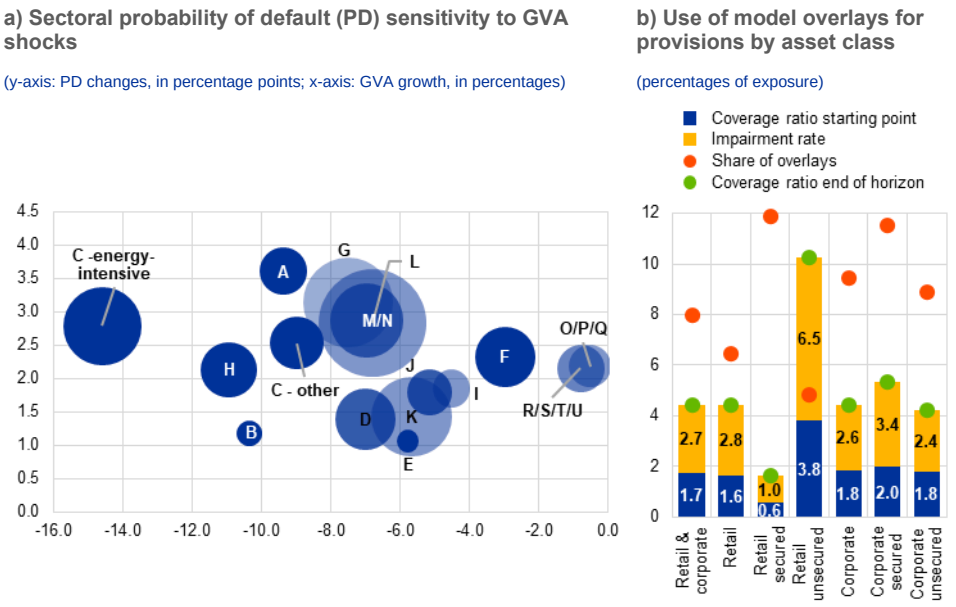
Sources: EU-wide stress test submissions, ECB and ECB calculations.
Notes: See footnote 39 for the definition of vulnerable sectors. Panel a and panel b: the boxplots show the median value and the Q1-Q3 interquartile range; the whiskers show the 10th/90th percentiles of the distribution over all 96 banks. Panel b and panel c: cumulative impairment rates are calculated as the sum of three-year horizon impairments divided by the starting point exposures.

[39] "Potentially vulnerable sectors" refers to sectors, as defined in the NACE (Revision 2) classification system, with significantly greater gross value added (GVA) shocks at EU level, according to the stress test adverse scenario, than the EU overall GDP impact. The sectors most affected include A (agriculture, forestry and fishing), B (mining and quarrying), C (manufacturing), G (wholesale and retail trade) and H (transportation and storage). Sectors D (energy), L (real estate activities) and M/N (professional, scientific, technical, administrative and support service activities) show only slightly higher cumulative GVA shocks relative to the EU GDP shocks, and so were not classified as potentially vulnerable in this analysis.

Banks' ability to model sectoral vulnerabilities is key for sound risk management. The pandemic in 2020 and the energy crisis in 2022-23 clearly demonstrated that the sectoral dimension is critical for sound credit risk management. The shocks hitting the economy during these periods varied widely across different industrial sectors. In this light, it is considered essential for banks to be able to quantify emerging risks, including climate and nature-related risks, at the sectoral level in a forward-looking manner. ECB Banking Supervision therefore places particular emphasis on banks' ability to stress test their credit risk portfolios at the sectoral level. Across sectors, banks' projected probabilities of default show some degree of sensitivity to gross value added (GVA) shocks under the adverse scenario (Chart 3.11, panel a). However, this relatively low correlation is also congruent with the many limitations that still exist in banks' models with regard to capturing sectoral vulnerabilities. Around half of participating banks still do not have specific models for activity sectors in place, as they usually apply simple sensitivities to their projections. At the same time, there is significant variation in the quality and comprehensiveness of internal models for deriving sector-specific parameters across banks. This indicates that there is still significant scope for improvement on this front.

Chart 3.11

Sectoral sensitivity to gross value added (GVA) shocks and use of model overlays for loan loss provisions



Sources: EU-wide stress test submissions, ECB and ECB calculations.
Notes: Panel a: the PD and GVA growth refer to three-year cumulative values; the size of the bubble indicates the size of the performing exposures in the respective sector, in the adverse scenario. The codes refer to the following NACE sectors:
A - Agriculture, forestry and fishing
B - Mining and quarrying
C - energy-intensive - Manufacturing - energy-intensive activities
C - other - Manufacturing – other
D - Electricity, gas, steam and air conditioning supply
E - Water supply, sewerage, waste management and remediation activities
F – Construction
G - Wholesale and retail trade, including repair of motor vehicles and motorcycles
H - Transportation and storage
I - Accommodation and food service activities
J - Information and communication
K - Financial and insurance activities
L - Real estate activities
M/N - Professional, scientific and technical activities; administrative and support service activities
O/P/Q - Public administration and defence, compulsory social security; education; human health services and social work activities
R/S/T/U - Arts, entertainment and recreation; other services activities; activities of households; activities of extraterritorial organisations and bodies
Panel b: coverage ratios are calculated as the stock of total loan loss provisions divided by the total exposures. Impairment rates are calculated as the sum of three-year horizon impairment flows in the adverse scenario divided by the starting point exposures. “Share of overlays” refers to model overlays as a percentage of total loan loss provisions at the starting point.

Overlays are an important component for banks’ levels of starting point loan loss provisions, which are also reflected in the stress test. While banks report a decrease in the overall contribution of overlays to total provisions compared with the 2023 stress test, they still account for 8% of total provisions, with a high degree of variation across the sample and portfolios (Chart 3.11, panel b). Performing exposures, and in particular Stage 2 exposures, account for 87% of total overlays. Across banks, the use of overlays in the starting point loan loss provisions may reduce the sensitivity of impairments to the scenario shocks. The use of model overlays for provisioning in the past years has been a common practice among institutions. These are typically aimed at assessing different emerging risks or uncertainties not easily accounted for by their models. While the use of overlays may be necessary, banks still have much scope for improvement in their quantification

and implementation. This area will therefore remain a focus of supervisory attention in the upcoming period.[40]

Box 3

Sectoral vulnerabilities and bank losses under a tariff-driven economic slowdown

The US administration's recent tariff announcements have introduced a new layer of geopolitical uncertainty. This box analyses credit risk sensitivities under two alternative assumptions by applying additional stress to the variables considered by the ECB's models. First, PDs for tariff-sensitive sectors are calculated using the 95th percentile of a sectoral top-down Quantile PD model, rather than the 75th percentile used in the 2025 EU-wide stress test adverse scenario. This is to account for the potentially higher impact of tariffs in the current situation of extraordinarily high uncertainty.[41] Second, PDs are calculated under a sensitivity scenario that assumes an additional 10 percentage point bilateral tariff increase on euro area exports to the US relative to the stress test adverse scenario. The increase in US tariffs vis-à-vis the euro area would have pronounced macroeconomic effects, as projected in the severe scenario of the June 2025 Broad Macroeconomic Projection Exercise (BMPE).[42] In combination with other macroeconomic and financial shocks, the 2025 stress test adverse scenario assumes a 10% bilateral euro area-US tariff level, projecting a 6.2% cumulative GDP decline over three years. The materialisation of the additional tariffs embodied in the June 2025 BMPE severe scenario would lead to a further 1.2 percentage point output loss relative to the June 2025 BMPE baseline. Making use of the BMPE framework to ensure consistency with the ECB's official projections, this output loss is incorporated into the 2025 EU-wide stress test adverse scenario for the sensitivity analysis conducted in this box, leading to the assumption of a 20 percentage point bilateral tariff increase relative to the baseline.

Amid higher uncertainty from the new tariff environment, PDs are projected to rise further, translating into increased credit risk as the macro-financial landscape deteriorates. An economic slowdown triggered by the new tariff environment would propagate through sector-specific channels, particularly affecting agriculture, mining, manufacture, energy, utilities and construction. These sectors not only exhibit higher vulnerability but also contribute significantly to overall economic output, as reflected in their gross value added. When considering the stress test adverse scenario, additional geopolitical uncertainty could raise the aggregate PD by an average of 3 percentage points over the three-year horizon, estimated on the basis of the 95th percentile of a top-down sectoral Quantile PD model for tariff-sensitive sectors to capture higher scenario sensitivity. Incorporating the effects of an additional 10 percentage point tariff increase into the 2025 stress test adverse scenario could raise the aggregate PD by a further 2 percentage points on average over the three-year horizon (Chart A, panel a), after applying the 95th percentile to tariff-sensitive sectors to account for increased uncertainty.

In terms of capital depletion, increased tariff-related uncertainty and a scenario with more adverse tariff developments could result in additional credit risk losses. When benchmarked against the 2025 stress test adverse scenario, additional uncertainty, captured by the 95th percentile, would imply a further CET1 depletion of around 20 basis points over the three-year

40 See also McCaul and Walter (2023).

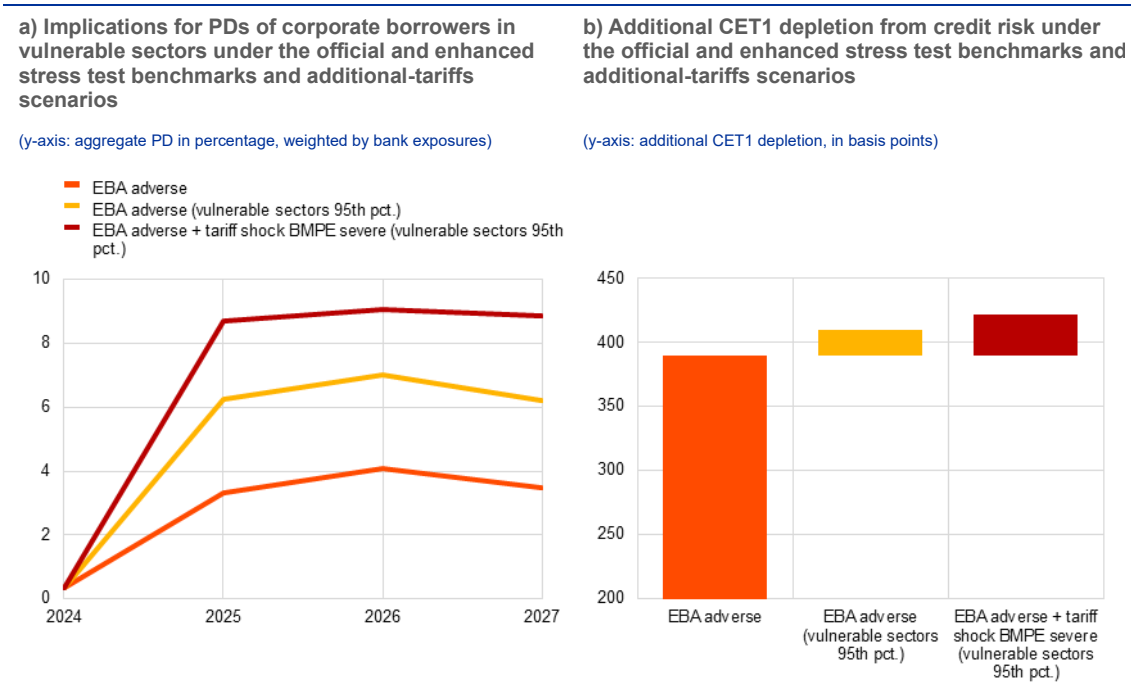
41 The analysis conducted for the euro area employs a sector-specific, quantile-based probability of default model suitable for capturing non-linear dynamics in credit risk. See, Konietschke et al. (2025) and Konietschke et al. (2022). For further details, see also Budnik et al. (2024).

42 For further details, please see Box 2, "US tariffs and trade policy uncertainty", in European Central Bank (2025).

horizon (Chart A, panel b, yellow). By comparison, the effects of an additional 10 percentage point tariff increase in the 2025 stress test adverse scenario, combined with the increased tariff sensitivity of vulnerable sectors, would increase the CET1 depletion by around 32 basis points (Chart A, panel b, red).

Chart A

Corporate PDs in vulnerable sectors and incremental CET1 depletion under the official and enhanced stress test benchmarks, including the additional-tariffs scenarios



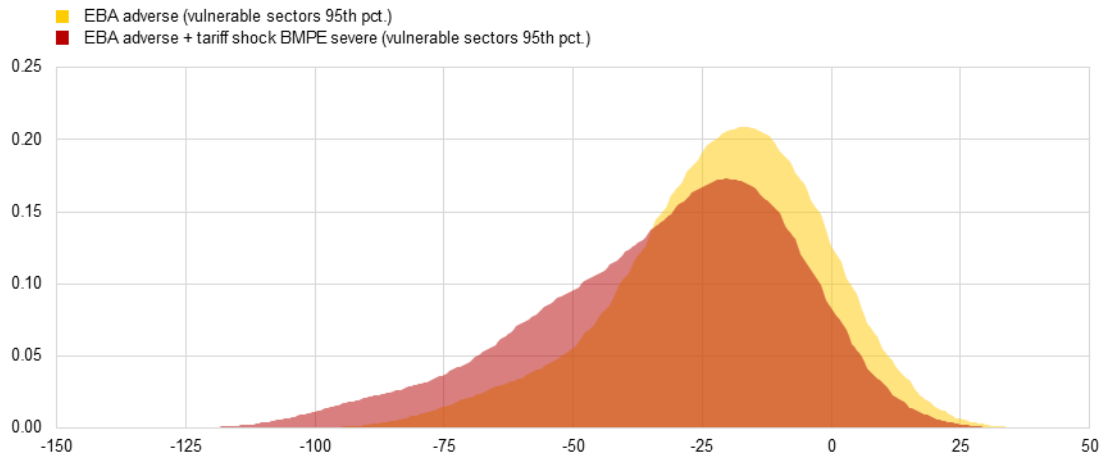
Sources: ECB and ECB calculations.
Notes: Panel a: sensitivity analysis on NFCs: implications for aggregate PDs. PDs are computed via the Quantile PD model for both the 75th and 95th percentiles. Panel b: additional CET1 (gross) depletion (in basis points) relative to the EBA adverse scenario, based on the 95th percentile of the EBA adverse scenario (yellow) and the BMPE severe scenario (red). pct. stands for percentile.

The sector-specific increases in PD lead to heterogeneous capital depletion across banks. Using the ECB's top-down stress test model framework, estimated additional credit risk losses at the system level under the additional-tariffs scenario are around 32 basis points higher than in the adverse stress test scenario. When considering only the increase resulting from applying the 95th rather than the 75th percentile of the Quantile PD model, the additional depletion amounts to around 20 basis points. These results exhibit substantial heterogeneity across banks (Chart B), with those most affected typically exhibiting significant exposures to vulnerable sectors, weaker initial credit quality profiles and limited CET1 capital headroom at the starting point. These institutions – primarily universal and corporate lenders – experience the greatest additional credit risk depletion by the end of the scenario horizon. Compared with the adverse stress test scenario, the distribution of CET1 depletion from credit risk under the additional-tariffs scenario shows greater dispersion and a pronounced left tail, indicating increased vulnerability on the part of some banks. This heterogeneity reflects differing exposures to trade-dependent and highly leveraged firms in tariff-sensitive sectors, highlighting how sectoral concentration and firm-level fragilities can amplify shocks to bank resilience.

Chart B

Distribution of CET1 depletion from credit risk under the enhanced benchmarks and additional-tariffs scenario relative to the final credit risk losses

(x-axis: CET1 depletion in basis points in deviation from the EBA adverse scenario)



Sources: ECB and ECB calculations.
Notes: Banks' (gross) losses related to the materialisation of credit risk across euro area banks, obtained via the Quantile PD model and relying on the ECB top-down framework for the EU-wide bank stress test. pct. stands for percentile.

3.3 Market risk

Rising financial market uncertainty and widening risk premia under the adverse scenario lead to a notable increase in market risk losses for banks.[43] Market risk losses under the adverse scenario amount to €120 billion, contributing approximately 1.3 percentage points to total capital depletion. This compares with €117 billion of market risk losses (1.4 percentage point impact on CET1 ratio depletion) in the 2023 stress test. The primary driver is the revaluation of positions measured at fair value, which accounts for a negative impact of 1.6 percentage points. These revaluations are stressed in the first year through a series of instantaneous market shocks. In addition, CCR losses due to defaulting counterparties in banks' derivatives transactions contribute 0.4 percentage points, while losses on other market risk items (liquidity reserves and model uncertainty, credit valuation adjustments and additional valuation adjustments) add another 0.6 percentage points to CET1 ratio depletion. However, these losses are partially mitigated by projected client revenues, which contribute a positive offset of 0.9 percentage points (Chart 3.12, panel a).

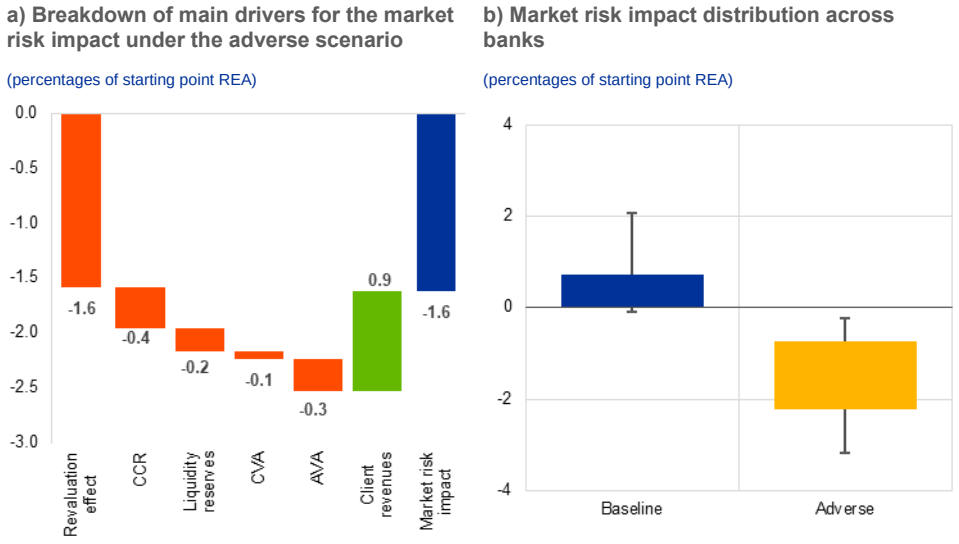
The impact of market risk under the adverse scenario varies significantly across banks, reflecting differences in exposure and balance sheet

[43] According to the 2025 EU-wide stress test – Methodological Note, NTI components, CCR exposures, hedge accounting positions, other comprehensive income, non-trading financial assets mandatorily at fair value through profit or loss and financial assets and liabilities designated at fair value fall under the scope of the market risk assessment. A set of instantaneous shocks, as provided in the market risk scenario, are applied to these items in the first year of the adverse scenario. Additional shocks from the market risk scenario are also applied to the bid-ask spread of level 1, level 2 and level 3 instruments, leading to an increase in the reserves on fair value adjustments and additional valuation adjustments, under the liquidity issues and model risk.

composition. This is evident in the wide dispersion of three-year cumulative market risk losses, with the full revaluation of fair value positions emerging as the primary driver of losses for most institutions (Chart 3.12, panel b). Banks with larger holdings of fair value instruments or more sensitive trading books are particularly affected by the adverse scenario. By contrast, the baseline results in a positive capital effect across the sample, as it incorporates only the effects on net trading income (NTI), without considering the more severe revaluation shocks assumed in the adverse scenario.[44] This divergence underscores the importance of market exposure profiles in determining banks' vulnerability to financial market stress.

Chart 3.12

Market risk losses in the adverse scenario



Sources: EU-wide stress test submissions, ECB and ECB calculations.
Notes: REA stands for risk exposure amount. Stress test projections are expressed as percentage of end-2024 REA restated under the CRR3. Panel a: the market risk impact also includes the AVA component. CCR stands for counterparty credit risk; CVA stands for credit valuation adjustment; AVA stands for additional valuation adjustment. Panel b: the boxplot shows the median value and the Q1-Q3 interquartile range, while the whiskers show the 10th/90th percentiles of the cross-bank distribution of the three-year cumulative market risk losses.

Under the adverse scenario, the key drivers of market risk impact are credit spread shocks, interest rate movements and fund valuation losses, which together account for most of the capital depletion across banks. Although equity shocks also contribute negatively to market risk outcomes, custodians and asset managers experience a positive effect due to increased asset values and fee income linked to market volatility.[45] Inflation has a modest and mixed impact, providing a limited benefit to most banks but exerting mild pressure on the "other banks" category (Chart 3.13, panel a). Additionally, the widening of bid-ask spreads on portfolio items exposed to credit, interest rate and equity risks amplifies market liquidity and model uncertainty reserves. This has a particularly detrimental effect on investment banks, where mark-to-model valuations are more sensitive to liquidity

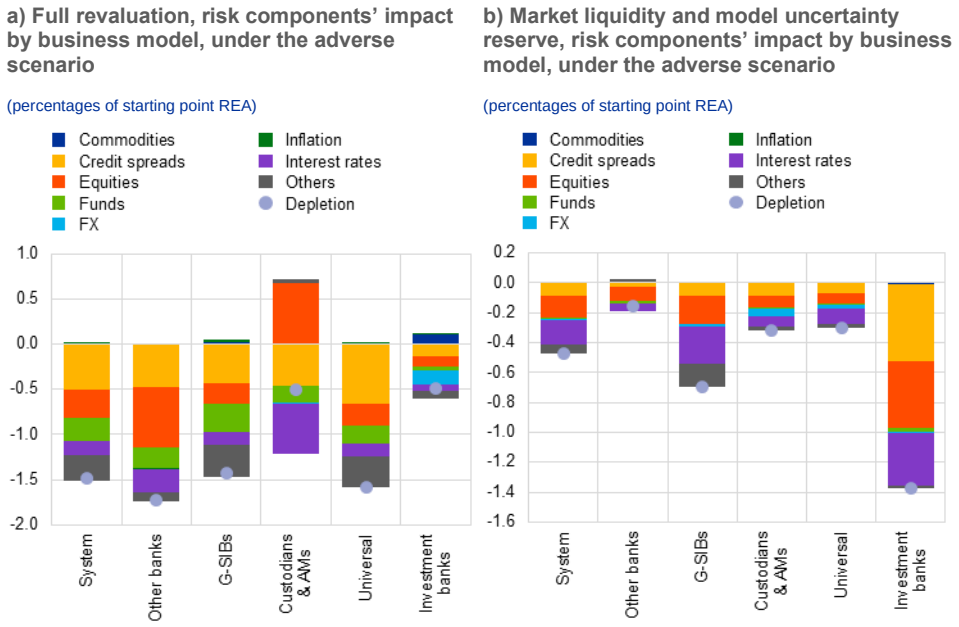
[44] Under the 2025 EU-wide stress test – Methodological Note, revaluation effects, shocks to bid-ask spreads in the context of liquidity reserves and counterparty defaults are only taken into account under the adverse scenario, with no impacts incorporated in the baseline.

[45] The positive equity impacts seen in custodians and asset managers are driven by net short equity positions in the trading books of some banks with these business models. The size of the impact is also accentuated by the low REA of these business models compared with the rest of the sector.

stress (Chart 3.13, panel b), highlighting their heightened vulnerability to market dislocations.

Chart 3.13

Interest rate, credit spread and equity shock contributions to the market risk components' impact across business models



Sources: EU-wide stress test submissions, ECB and ECB calculations.
Notes: Other banks comprises diversified lenders, corporates/wholesale lenders, small market lenders, retail lenders and development/promotional lenders; GSIBs stands for global systemically important banks; Custodian & AMs stands for custodians and asset managers; Universal stands for universal banks; FX stands for foreign exchange and depicts the effects driven by the exchange rate shocks. Panel a: full revaluation losses before application of methodological floors.

The current stress test introduced a more conservative approach to CCR by increasing the severity of assumed defaults. Specifically, three of the ten largest and most vulnerable counterparties are considered to default, instead of two as in previous exercises. This adjustment reflects a heightened focus on concentration risk and aims to better capture potential losses in stressed conditions. As a result, banks with significant exposures to large counterparties are likely to face higher capital requirements, reinforcing the prudential framework's emphasis on resilience under adverse market dynamics. At system level, this approach increased the CCR impact to 0.4 percentage points, compared with 0.2 percentage points in the 2023 stress test.

Box 4

Evidence from complex trading portfolios under the multiple market risk scenarios

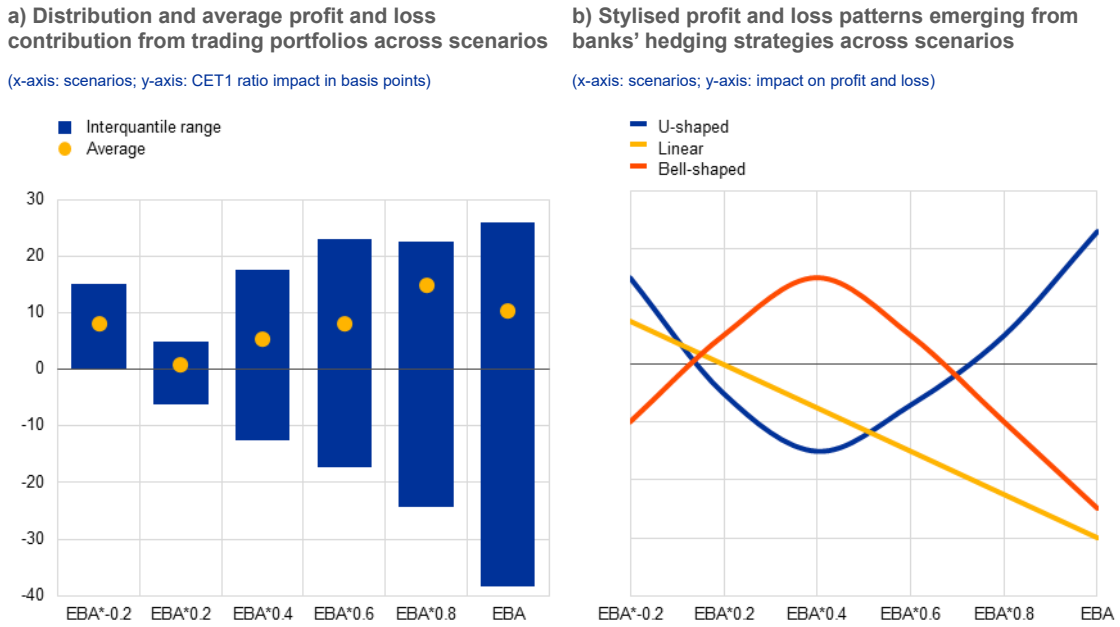
Banks with larger and more sophisticated market risk portfolios performed a full revaluation of items held with a trading intent and related hedges under five additional scenarios.[46] These additional scenarios were defined by rescaling the market shock parameters of the adverse scenario, creating a gradually increasing degree of severity towards the full adverse scenario

[46] See 2025 EU-wide stress test – Methodological Note, Section 3.4.5.

(EBA*0.2, EBA*0.4, EBA*0.6 and EBA*0.8) as well as an opposite scenario where shocks are reversed and scaled down by 20% (EBA*- 0.2), thereby allowing a more detailed investigation of banks' hedging strategies.

Chart A

Profit and loss (P&L) patterns across scenarios in held-for-trading (Hft) portfolios



Sources: EBA 2025 EU-wide stress test data and author's representation.
Notes: Panel a: 25-75% boxplot and average profit and loss from held-for-trading portfolios across banks under different scenarios, weighted by risk exposure amount; Panel b: the lines in the chart exemplify stylised patterns observed across banks. The black horizontal line represents a zero impact on a portfolio's profit and loss, dividing the chart in a positive field (gains) and a negative one (losses).

On aggregate, the banks with the largest and most complex trading portfolios are resilient to various degrees of adverse scenario materialisation (Chart A, panel a). Modest losses, muted impacts or even gains[47] are reported by the banks most exposed to market risk when compared with the impacts reported in the official scenario. The non-linear evolution of the profit and loss contribution across scenarios is driven by the presence of derivatives in these portfolios, which are used by banks to acquire short positions in the market or provide a hedge against adverse risk.

Across the additional scenarios, banks report three main stylised patterns for the impact on their profit and loss (Chart A, panel b). Some banks realise gains under the two polar scenarios (EBA*−0.2 and EBA), while showing moderate losses for the remaining "in-between" scenarios ("U-shaped" category). A mirror pattern can also be observed for other banks with losses in outermost scenarios and mild gains in the middle ones ("bell-shaped" category). For other banks, the portfolio impact increases (or in some cases decreases) linearly with the severity of the scenario, indicating a partial hedge. Some banks also report sizeable gains in the most adverse scenarios, in a few cases turning quickly from losses to gains despite only small variations in the shocks.

In terms of risk drivers, banks are primarily exposed to equity shocks, especially under more severe scenarios, followed by credit spread and interest rate shocks (Chart B, panel a). In particular, most of the banks display a short position in their portfolios against deviations in equity

[47] The figures under the main EBA scenario are overwritten by a methodological floor for losses in the results of the EBA 2025 EU-wide stress test, ensuring a conservative level of severity.

markets. For the other asset classes, an almost equal split between banks being long or short on these asset classes can be observed.

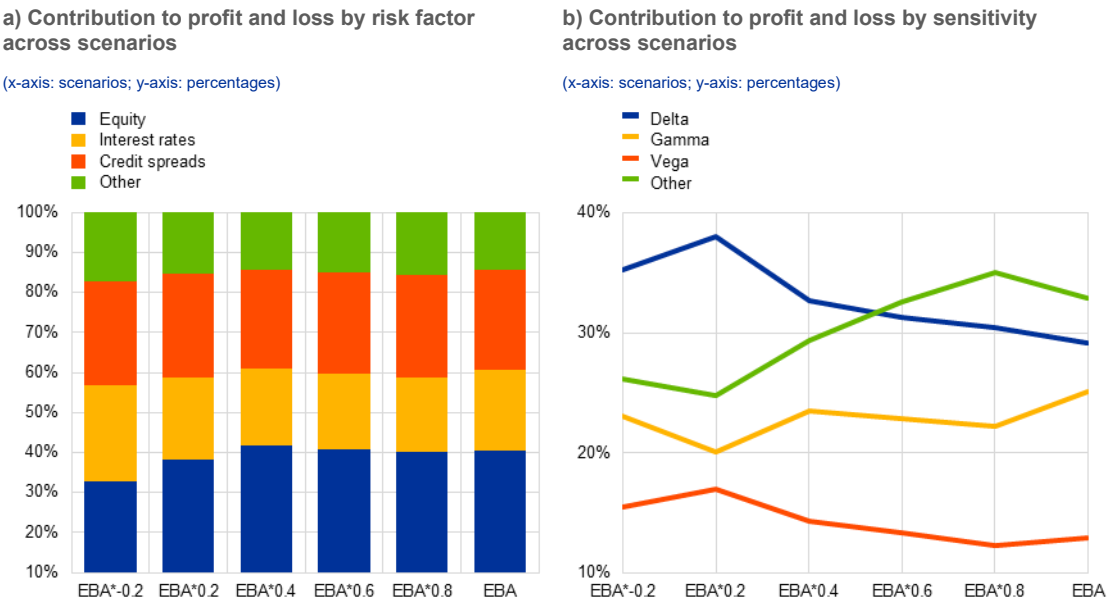
A variety of behaviours are reflected in risk factor and sensitivity patterns which explain the reported impact on profit and loss. When subjecting banks to the full revaluation of their trading portfolios, the EBA methodology investigates the impact of scenario shocks using "*Greeks*", the name given to parameters representing the sensitivity of financial products to swings in their underlying risk factors (such as interest rates and equity). The EBA *Greeks* include *Delta,* which captures the linear sensitivity of a portfolio to a shock to the corresponding underlying risk factor, *Gamma,* which measures how *Delta* evolves based on the magnitude of the variation of the risk factor (second-order sensitivity to the underlying risk factor), and *Vega,* which indicates the sensitivity of a portfolio to the volatility of the underlying risk factors.

Linear sensitivities explain a larger share of the impact on profit and loss when shocks are smaller, while higher-order sensitivities dominate as the scenario becomes more severe (Chart B, panel b). *Delta* impacts have a prominent role when small shocks (+/- 20% of the EBA scenario) are applied, while *Gamma* increasingly affects the results as the scenarios become more severe. The impact of *Vega* is smaller on average, driven by a few banks showing very limited or no impact from this risk factor, which highlights a limited use of volatility products. Banks with more complex portfolios consisting of exotic derivatives would typically display a U-shaped or bell-shaped profile.

The cross-sensitivities stemming from structured products raise concerns over the potential for counterparty credit risk associated with these positions. Most banks show a significant portion of profit and loss explained by sensitivities other than *Delta*, *Vega* and *Gamma,* mainly arising in the equity category and driven by a broader use of structured products in this asset class. Interestingly, some of these products have limited impact in the baseline and are typically sold at low prices, while under adverse scenarios they instead generate significant profit and loss from *Gamma*, cross effects and other second-order sensitivities. However, the gains reported by banks may be mirrored by increased counterparty credit risk, as losses for the derivatives seller could also increase in a non-linear fashion as the economy approaches the EBA adverse scenario.

Chart B

Risk factor and sensitivities' contribution to held-for-trading portfolios' profit and loss



Source: EBA 2025 EU-wide stress test data.
Notes: Panel a: the bars represent the relative contribution of risk factors to overall profit and loss, by scenario. The "Other" risk factors include inflation, commodities, exchange rates and any other risk factor besides equity, interest rates and credit spreads. Panel b: the lines represent the relative contribution of the portfolio *Greeks* to the overall profit and loss, by scenario. The "Other" impact includes any impact derived from sensitivities other than *Delta*, *Gamma* and *Vega*, such as cross-sensitivities, higher-order sensitivities and other risk factors related to the specifics of the derivatives products that populate banks' portfolios.

3.4 Operational risk

Under the adverse scenario, aggregate cumulative losses arising from conduct risk and other operational risk account for 0.58 percentage points of CET1 ratio depletion (Chart 3.14, panel a). The aggregate operational risk losses projected in the 2025 stress test are broadly comparable with those observed in the 2023 stress test (0.62 percentage points). For conduct risk and other operational risk losses, SSM banks exhibit a smaller CET1 ratio depletion (0.39 percentage points) than EBA banks (0.60 percentage points), reflecting the generally less complex nature of their activities.

In the baseline, projected losses from material conduct risk events account for a relatively small part of the overall depletion compared with non-material

conduct risk and other operational risk events.[48] In 2024, conduct risk losses on a system level exhibited a surge to levels not seen since 2016. The increase was mainly caused by court rulings regarding a few material conduct risk events which would affect multiple banks to different degrees. Despite the recent surge, system-level material conduct risk losses are projected to be lower than the starting level under the adverse scenario, too (Chart 3.14, panel b). This indicates that banks do not expect large losses to arise from either historical material conduct risk events (in excess of accounting provisions and losses already booked by end-2024) or new material conduct risk events during the three-year projection horizon.[49]

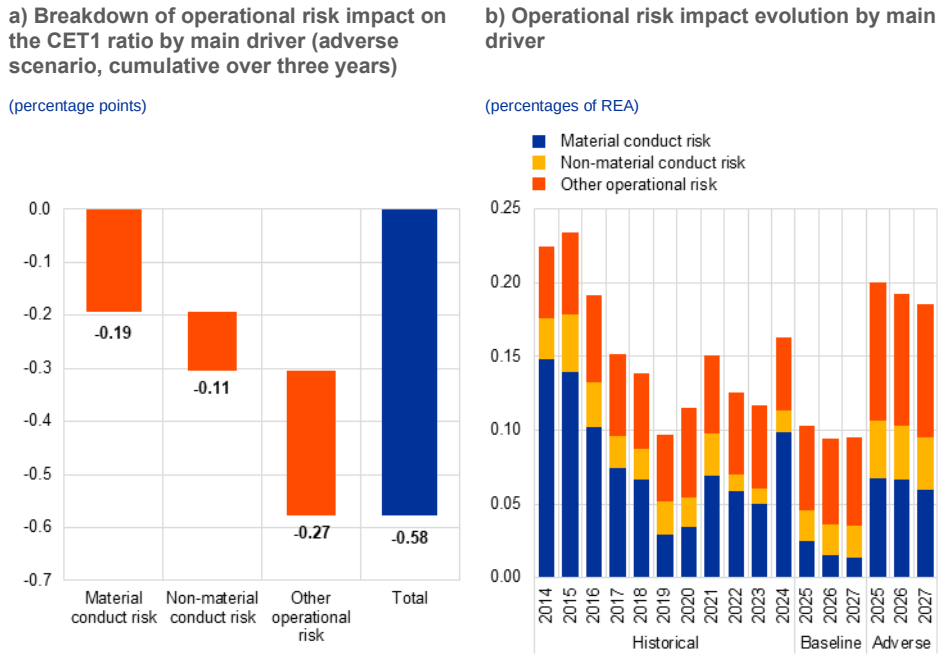
Operational risk events not related to conduct-related risk account for around half of the aggregate cumulative operational risk losses. This includes, for instance, ICT-related incidents and frauds perpetrated against a bank by outsiders, such as cyberattacks. In addition, a wide range of risks that are outside an institution's control – such as natural disasters and supply chain disruptions – also fall under this category. Detrimental external events such as trade fragmentation, escalating geopolitical tensions and a marked increase in the number and frequency of cyberattacks play a key role in the adverse scenario, but are to some extent also inherent in the developments foreseen by the baseline. In addition, the higher projections can be motivated by banks' increased awareness of the importance of cyber resilience. In its thematic stress test on cyber resilience conducted in 2024, the ECB specifically tested the ability of banks to respond to and recover from a cyberattack, underscoring the need to plan for these type of events. Thus, the higher aggregate level of other operational risk loss projections must be seen against the backdrop of these identified structural risks to financial stability.

[48] According to paragraph 435 of the 2025 EU-wide stress test – Methodological Note: "Conduct risk is defined as the current or prospective risk of losses to a bank arising from an inappropriate supply of financial services, including cases of wilful or negligent misconduct." The same paragraph states that conduct risk losses are in general assumed to correspond to losses related to event type 4 ("clients, products and business practices") and event type 1 ("internal fraud") of the classification scheme in the common reporting (COREP) template for operational risk (C 17.01). Meanwhile, material conduct risk events are those that triggered or will trigger aggregate gross losses of more than 10 basis points of the end-2024 absolute level of transitional CET1 capital of the institution at a consolidated level during the period 2020-24 or during the three projection years in the baseline or the adverse scenario, according to paragraphs 437 and 438. According to paragraph 436: "Other operational risk follows the definition of 'operational risk' as in the CRR (i.e. the risk of losses resulting from inadequate or failed internal processes, people and systems or from external events (including war-related losses), and includes legal risk, but excluding all conduct-related losses".

[49] Banks need to provide a reasonable justification to their competent supervisory authority when projecting material conduct risk losses that are lower than the minimum value ("floor") stipulated in paragraph 470 of the 2025 EU-wide stress test – Methodological Note which is based on the historical loss amounts.

Chart 3.14

Conduct risk and other operational risk losses



Sources: EU-wide stress test submissions, ECB and ECB calculations.
Notes: Panel a: the three-year cumulative impact of operational risk losses is expressed in percentage points of the CET1 ratio at year-end 2024 restated under the CRR3. Panel b: the historical evolution of operational risk losses covers an unbalanced panel, as not all institutions in the full 2025 stress test sample have been reporting supervisory data to the ECB since 2014; differences between using the full stress test sample, compared with the common sample of reporting banks between the 2025 stress test and historical reporting years, are assessed to be marginal. Historical values are expressed as a percentage of REA at the end of the respective year. For end-2024, REA restated under the CRR3 is considered. Stress test projections for the period 2025-27 are expressed as a percentage of end-2024 REA restated under the CRR3.

3.5 Profitability

Euro area banks' profitability improved significantly in the two years leading up to the 2025 stress test. This enhanced profitability, accumulated in recent years mainly as a result of the increasing interest rates, serves as a buffer against adverse effects hitting banks' capital. While the stress test projects a contraction in total net income[50] by an average of 15% over the three-year horizon under the adverse scenario, driven by rising funding costs and broader macro-financial shocks, the higher initial profitability helps mitigate the negative impact on banks' capital positions. The results reflect a marked improvement in banks' income-generating capacity relative to the previous stress tests, which reduces the pace and extent to which adverse conditions erode capital.

An important change compared with the last stress test was that the projections of NII were centralised for most instruments. The NII centralisation resulted in a prescriptive application of the methodological approach and further contributed to reducing banks' efforts in projecting and reporting the required stress

[50] Including net interest income, net fee and commission income and dividend income.

test data.[51] The only item that remains bank-led is the derivatives margin, which is subject to non-linearities and must be reported directly by the banks.

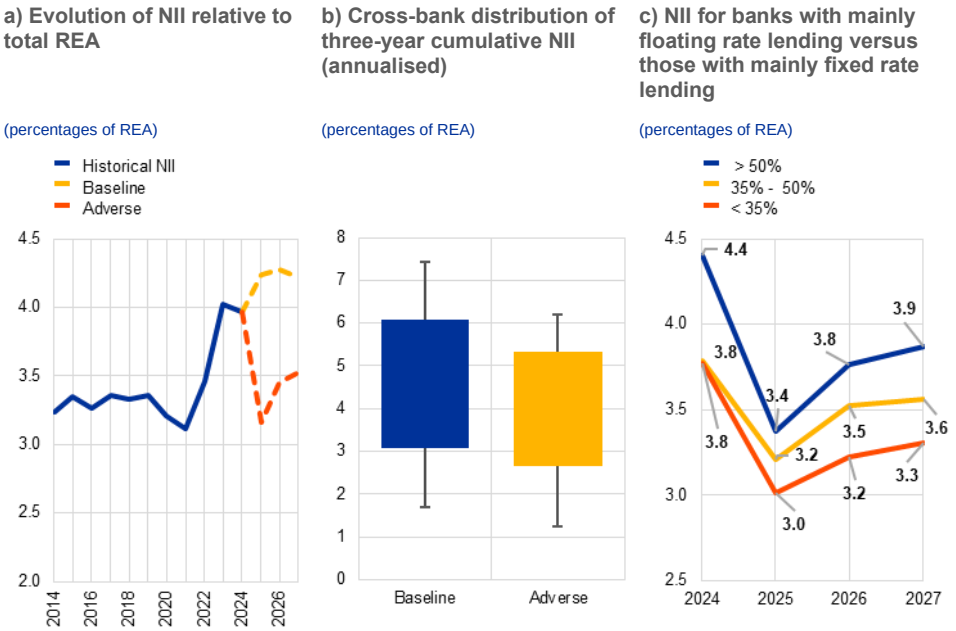
Despite the pronounced contraction in NII under the adverse scenario, banks are projected to maintain higher average NII levels during the 2025–27 scenario horizon than over the 2014–22 period. NII is expected to decline by 20.2% in the first year of the stress test horizon, to 317 REA basis points, before recovering partially to reach 353 REA basis points, resulting in a cumulative decline of 11% by the end of the three-year period (Chart 3.15, panel a).[52] By contrast, under the baseline, NII is projected to increase by a cumulative 6.5% over the same period. The system-level figures conceal substantial variation across individual banks, driven by differing sensitivities to interest rate changes (Chart 3.15, panel b). Banks with a higher share of fixed rate lending tend to benefit less from the adverse scenario-implied rise in interest rates compared with those with more floating rate loans (Chart 3.15, panel c). Similarly, institutions that rely more heavily on funding sources with faster interest rate pass-through face greater pressure under adverse conditions. Additional factors, such as banks' hedging strategies, the duration of their interest rate exposures and positions outside the banking book, contribute further to the dispersion of banks' NII outcomes.

[51] In the previous stress test exercises, banks were allowed to apply internal models in addition to the methodology when projecting their NII. However, given the binding nature of the NII methodology, these models could only add conservatism to the NII projections. Considering this, the vast majority of banks were only applying the methodology for projecting their NII. Therefore, applying the methodology in a centralised manner reduced banks' effort without reducing the conservatism of the projections. This adds to the NFCI top-down approach already centralised in the 2023 exercise.

[52] Under the adverse scenario, projected NII cannot increase compared with the starting point NII before considering the impact from additional provisioning on NPEs, which also contributes to a contraction in the projected NII when assuming a static balance sheet. This is the "NII cap".

Chart 3.15

Historical system-level NII and current bank-level NII distribution



Sources: EU-wide stress test submissions, ECB and ECB calculations.
Notes: The change in NII covers an unbalanced panel, as not all institutions in the 2023 stress test sample have been reporting supervisory data to the ECB since 2014; the impact of the change in samples is assessed to be marginal. REA stands for risk exposure amount. Historical values are expressed as a percentage of REA at the end of the respective year. For end-2024 REA restated under the CRR3 is considered. Stress test projections are expressed as a percentage of end-2024 REA restated under the CRR3. Panel a: historical values are expressed as a share of annual REA, while stress test projection values are expressed as a share of 2024 REA. Panel b: the boxplot shows the median value and the Q1-Q3 interquartile range, while the whiskers show the 10th/90th percentiles. Panel c: the y-axis represents the NII percentages of REA (at starting point and for the three years of projections) under the adverse scenario. Banks were classified based on the share of floating rate loans in their total loans. The – the blue line represents the evolution of NII as a percentage of REA for banks with a share of floating rate loans in total loans of at least 50%; the yellow line represents the evolution of NII as a percentage of REA for banks with a share of floating rate loans in total loans of 35-50%;%, the red line represents the evolution of NII as a percentage of REA for banks with a share of floating rate loans in total loans below 35%.

The overall NII dynamics are shaped by asymmetrical movements in interest income and expenses, driven by differing sensitivities across the asset and liability components. The main factor boosting the projected NII under the adverse scenario is the increase in interest rates, which is driven by the increase in the reference rates on the assets side (Chart 3.16, panel a). However, higher lending rates weigh on borrowers' repayment capacity, prompting an increase in provisioning for NPE in line with the projected deterioration in credit risk.[53] On the liabilities side, sight deposits make the largest contribution to rising interest expenses, followed by term deposits, then bonds and secured funding. Although higher interest rates result in a negative contribution from the reference rate on liabilities, this is offset in part by the interest income generated from banks' assets.[54] The expected downward path of the interest rates under the baseline leads to the opposite effect to that in the adverse scenario, with a negative contribution of assets to the NII dynamics and

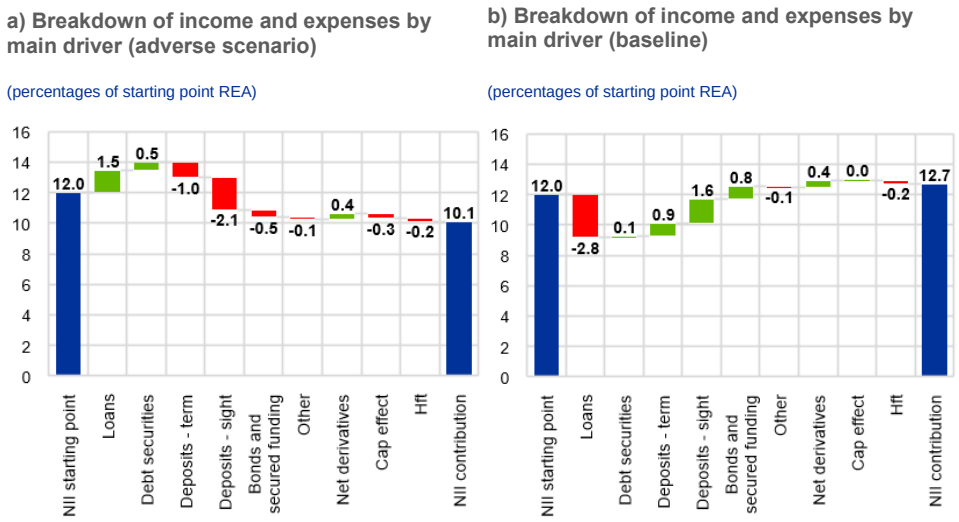
[53] From a methodological perspective, the NII projections capture the effect on accrued interest due to increasing provisioning for NPEs consistently with banks' credit risk projections. However, the increase in projected loan losses is treated under the credit risk framework and does not directly and equivalently reduce projected NII (as the additional losses flow through profit and loss).

[54] The methodology sets out a reference rate pass-through for of 100% for all assets and liabilities components, except for sight deposits, for which the methodology prescribes a pass-through of 50% for households and 75% for non-financial corporations. At the same time, the asset side repricing is constrained by methodological interest rate pass-through constraints on lending margins.

positive drivers on the liabilities side (Chart 3.16, panel b). The contribution of derivatives remains relatively unchanged under the two scenarios. Overall, the findings reaffirm the importance of balance sheet composition and funding structures in determining banks' NII outcomes. The stress test results thus emphasise both the benefits of stronger asset repricing capacity and the vulnerabilities posed by higher credit risk and more interest rate-sensitive funding sources.

Chart 3.16

Interest income and interest expenses drivers



Sources: EU-wide stress test submissions, ECB and ECB calculations.
Notes: The NII starting point shown in the charts refers to NII as set out in the EBA methodology, calculated as the starting point interest rates multiplied by the starting point volumes. Stress test projections are expressed as a percentage of end-2024 REA restated under the CRR3. The bars between the NII starting point and NII end point represent the contribution of the different portfolios to the NII change during the stress test horizon. Hft stands for held-for-trading.

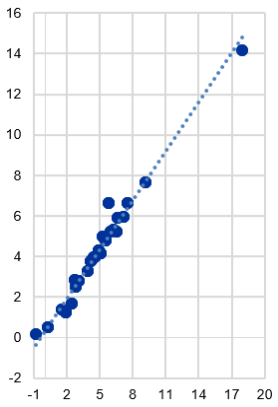
Banks' income generation under the adverse scenario is closely linked to both their initial NII position and the speed at which their assets and liabilities reprice. A higher starting point generally results in a more favourable projected NII (Chart 3.17, panel a). In addition, the structure and timing of balance sheet repricing also play a pivotal role in shaping NII outcomes. Banks with a higher proportion of asset repricing within the stress test period are better positioned to take advantage of rising interest rates, as the increase in interest income on the asset side more than offsets the corresponding rise in funding costs on the liabilities side (Chart 3.17, panel b). This repricing asymmetry allows such banks to maintain stronger income dynamics despite the broader economic downturn. Banks that have a higher share of floating rate exposures are able to pass on increases in reference rates to borrowers at a faster pace than banks with predominantly fixed rate exposures (Chart 3.17, panel c).

Chart 3.17

Impacts of balance sheet structure, repricing frequency and portfolio structure on NII-generating capacity

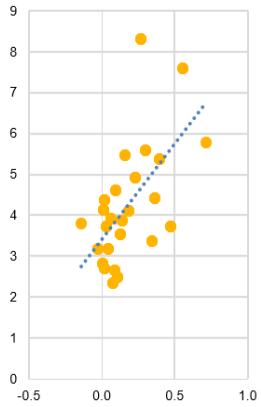
a) NII projections under the adverse scenario compared with the starting point

(y-axis: three-year cumulative NII projections, annualised, share of REA; x-axis: NII starting point, percentage share of starting point REA)



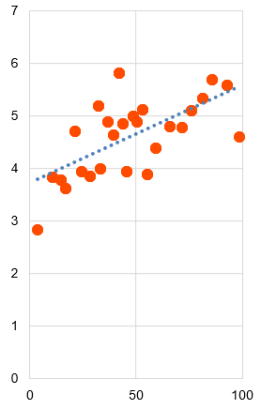
b) Repricing gap effect on NII projections under the adverse scenario

(y-axis: three-year cumulative NII projections, annualised, share of starting point REA; x-axis: repricing gap, years)



c) Effective interest rate against share of floating rate exposures

(y-axis: average projected effective interest rate, percentages; x-axis: share of floating rate exposures in total exposures)



Sources: EU-wide stress test submissions, ECB and ECB calculations.
Notes: The NII projections refer to the annualised projected NII over the three-year horizon, relative to REA, before application of the methodological NII cap. Stress test projections are expressed as a percentage of end-2024 REA restated under the CRR3. Panel b: the repricing gap indicator shows the weighted average repricing timing of assets compared with liabilities (a higher positive value of the indicator indicates that the time between the repricing of assets and liabilities is lower, thereby supporting NII production). Observations in both panels refer to the average across each cluster of individual banks, with the clustering performed on the basis of the statistical distribution of the NII starting point (panel a, panel c) and repricing gap (panel b), which also implies that the bank clusters shown in the three charts are not fully aligned.

Box 5

NII sensitivity analysis with various potential interest rate curve shapes

In the stress test, the shape of the interest rate curve assumed in the adverse scenario plays an important role for the projected net interest income (NII). The shape and the level of this interest rate curve, which are consistent with the broader macro-financial narrative underlying the scenario design, are key drivers of banks' NII. Therefore, different NII outcomes could result from interest rate realisations other than those assumed over the three-year horizon. This box presents a sensitivity analysis that highlights the critical role played by the shape and level of the yield curve in determining the financial performance and shock-absorption capacity of the banking sector.[55]

The NII sensitivity analysis explores different yield curve shapes in the vicinity of the adverse scenario yield curve. To determine the impact of different potential curve shapes on the results of the 2025 stress test, a range of additional scenarios were simulated.[56] These were based on the seven main types of curve shape defined in the economic literature[57] and regulatory

55 While this box focuses on sensitivities surrounding the shape of the yield curve, NII projections under the stress test are also strongly influenced by banks' starting balances and the methodological assumptions. For an analysis of the latter, see also Box 5 in the ECB 2023 stress test report.

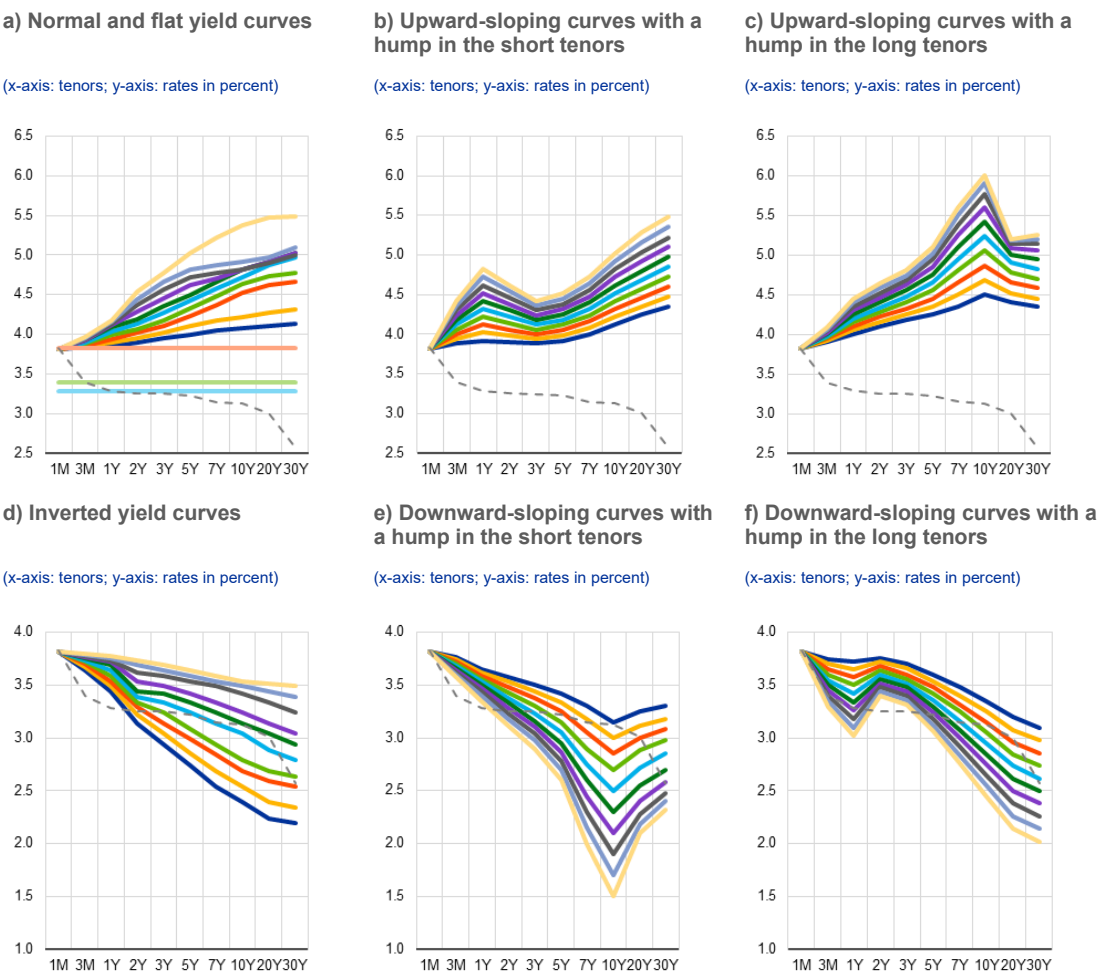
56 In these additional scenarios, only the swap rates were replaced. All other variables were kept constant at the values defined by the 2025 stress test adverse macro-financial scenario.

57 See Nymand-Andersen (2018) and Otto and Salish (2019).

guidelines[58]: flat, normal, inverted, downward-sloping with a hump in the short tenors or in the long tenors and upward-sloping with a hump in the short tenors or in the long tenors (Chart A, panels a to f).[59] These curves are not linked to a specific narrative but represent mechanical analyses of the sensitivity of selected tenors.

Chart A

Additional euro interest rate scenarios simulated to understand banks' NII evolution with different potential interest rate curve shapes



Sources: ECB and ECB calculations.
Notes: The dashed line represents the euro yield curve defined by the 2025 stress test adverse macro-financial scenario. For all currencies other than euro and US dollar, the interest rates were kept at the level defined by the 2025 stress test adverse macro-financial scenario. Both the euro and the US dollar curves defined in the simulated set of scenarios start from the same value stipulated by the 2025 stress test adverse macro-financial scenario for the one-month tenor in year 1. Each yield curve shape has ten simulated scenarios, except for the flat curves, which have only three simulated scenarios – assuming all tenors stay flat at the values defined by the 2025 stress test adverse macro-financial scenario for the euro tenors of one month, three months and one year.

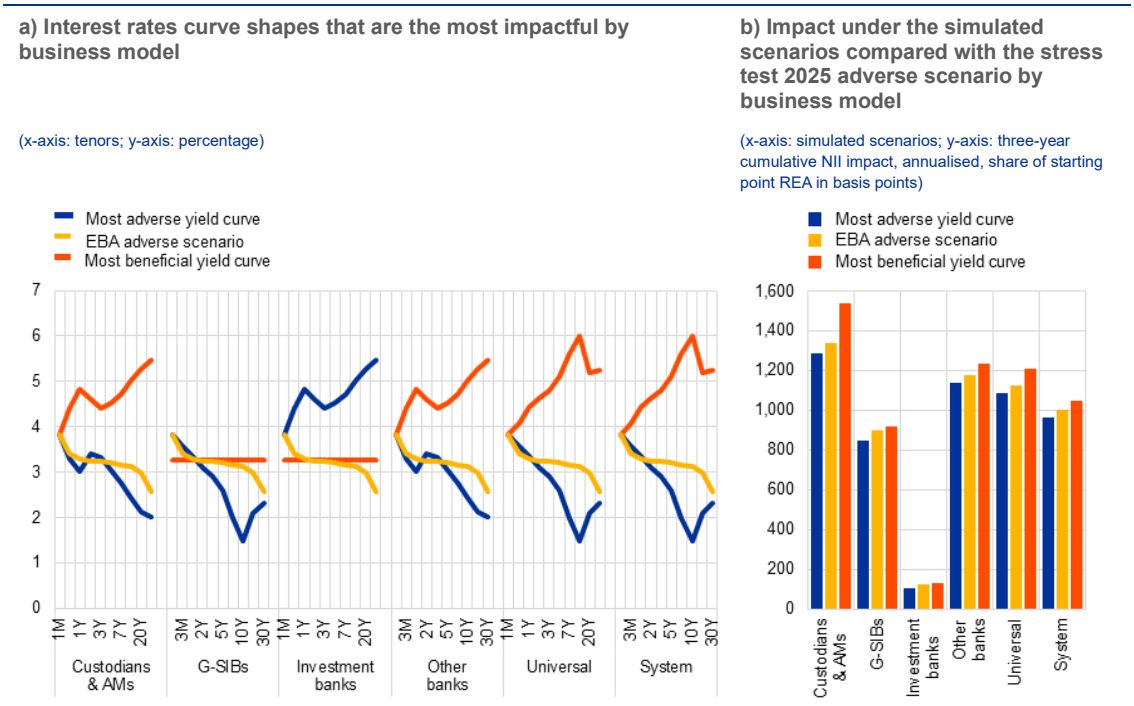
58 According to the EBA Guidelines on the management of interest rate risk and credit spread risk arising from non-trading book activities, banks are expected to simulate a minimum of six standard interest rate shock scenarios under the interest rate risks for banking book (IRRBB) positions framework: parallel up, parallel down, steepener, flattener, short rates up and short rates down. The ECB sensitivity analysis of IRRBB – stress test 2017 was also conducted based on six interest rate shocks: end-2016 curve, parallel up, parallel down, steepener, flattener and end-2010 shock.

59 The interest rates scenarios defined refer to the euro. The US dollar scenarios were determined by keeping the same relationship between the EUR/USD curves defined by the 2025 stress test adverse macro-financial scenario for the different tenors. The same values of the yield curves are used for all three projection years.

At system level, banks' aggregated NII is most vulnerable to scenarios that imply downward-sloping curves with a hump in the long maturities, while it benefits most when the curve is normal and elevated across the longer maturities. In downward-sloping humped scenarios, where mid-term and long-term yields fall well below short-term rates, banks are more affected because their funding is mostly related to the short tenors, and their lending tends to be priced primarily at the longer tenors (Chart B, panel a). This means that even stable or high short-term rates offer little protection if the longer tenors are characterised by low yields, which hampers profitability on the assets side. By contrast, when the yield curve is upward-sloping and long-term rates remain high relative to short-term rates, banks can generate NII more effectively, as new lending and asset reinvestment capture larger spreads. A steep and elevated yield environment thus provides a significant boost to system-wide interest income. Compared with the 2025 stress test adverse scenario, the most impactful simulated yield curve would result in a system-level NII decline of 43 basis points compared with the adverse scenario result (Chart B, panel b).[60]

Chart B

Banks' NII responses under the simulated scenarios are driven by their business model characteristics



Sources: 2025 EU-wide stress test data, ECB and ECB calculations.
Notes: The system-level aggregated NII covers all institutions in the 2025 stress test sample; REA stands for risk exposure amount. Other banks comprises diversified lenders, corporates/wholesale lenders, small market lenders, retail lenders and development/promotional lenders; G-SIBs stands for global systemically important banks; Custodians & AMs stands for custodians and asset managers; Universal stands for universal banks.

The overall impact of derivatives on the system-level results remains relatively unchanged across scenarios. This stability is largely due to the fact that a significant portion of derivatives positions reprice at market conditions over the scenario horizon, meaning that both the fixed and floating legs adjust under the simulated interest rates for the different scenarios. As a result, the existing hedging positions offer limited protection against substantial rate shifts, which implies that banks are currently positioned based on the expectation that interest rates will remain broadly in

[60] The NII calculations under the different scenarios reflect the gross figures before the application of the NII cap.

line with their current levels. However, results at the individual bank level show greater variability, driven by differences in business models and portfolio structures.

The shape and level of the interest rate curve affect bank business models in different ways. In general, inverted curves create a challenging environment for banks that depend on maturity transformation, such as universal banks, custodians and assets managers, G-SIBs and other banks, by severely compressing net interest margins, increasing the cost of short-term funding while offering less attractive yields for reinvestments. These conditions erode traditional sources of profitability, making it difficult for such banks to generate stable earnings from the spread between lending and funding costs. For custodians and assets managers, as well as many smaller banks, a downward-sloping curve with a hump in the short tenors exerts the most negative impact, whereas G-SIBs and universal banks are most negatively affected by a downward curve with a hump in the long tenors.

In general, business models benefit most when interest rate curves are upward-sloping and elevated, although not all banks profit equally. Such an environment particularly favours traditional lenders, universal banks and asset managers, enabling them to achieve higher returns on new loans and securities, and to better reprice their asset and liability portfolios. While upward-sloping curves are generally favourable for traditional lending businesses, investment banks experience declining NII under such conditions, since they rely less on traditional lending and more on trading activities. Therefore, the impact of interest rate curve movements underscores the need for banks to tailor their risk management strategies to their specific business models and balance sheet structures.

NFCI declines significantly under the adverse scenario. This scenario triggers a system-level cumulative NFCI fall of close to 20% relative to the starting point (Chart 3.18, panel a).[61] The largest decrease is recorded in the second year of the projections, with a fall of 20.2% compared with the starting point. In the baseline, NFCI falls by a cumulative haircut of 6.1%,%[62] partly owing to methodologically prescribed constraints, and is marked by a relatively constant decrease over the three-year scenario horizon. The NFCI projections are based on a supervisory top-down model, meaning that the EBA prescribes the projections.[63]

The NFCI decrease over the scenario horizon differs materially across business models (Chart 3.18, panel b). While investment banks record the largest drop, custodians and asset managers have the lowest projected NFCI decrease. In addition, custodians and asset managers show the highest contribution from NFCI under both scenarios (Chart 3.18, panel c), driven by the nature of their business

61 In the 2023 stress test, NFCI contracted by 21.4% compared with the starting point.

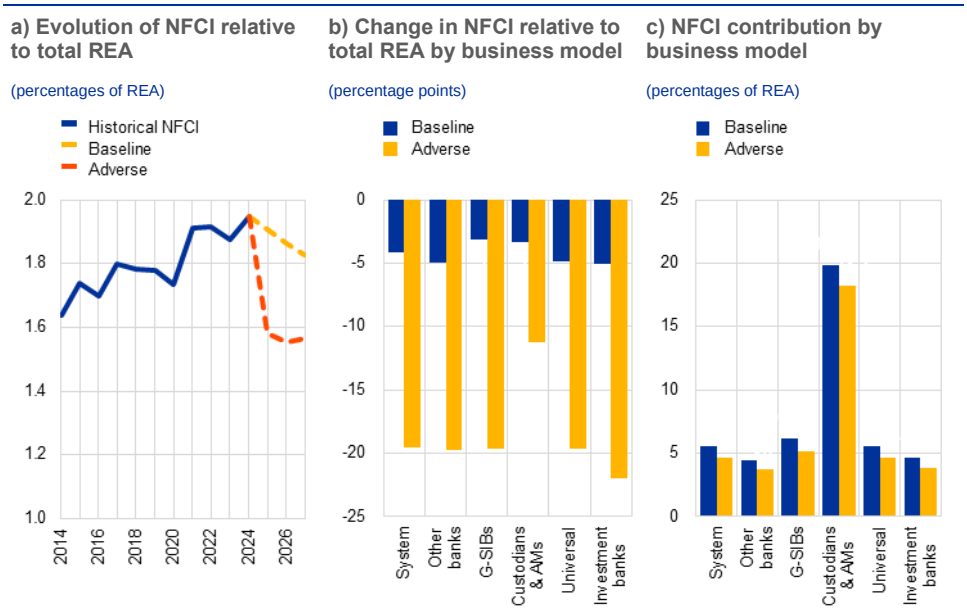
62 According to paragraphs 496 and 595 of the 2025 EU-wide stress test – Methodological Note, the projections of the NFCI supervisory model are subject to a model overlay, which means applying a cap and a floor (“corridor”) to model projections for the bank level NFCI growth rates. In the baseline, the cap is set at 0% and the floor is set at the value of the cap of the adverse scenario. In the adverse scenario, the cap and floor are set at a certain range. The calibration of the cap and floors maintains the order of severity between the two scenarios of the EU-wide stress test exercise. For the stress test 2025, the corridor was set at 0%/-10% for the baseline and -10%/-30% for the adverse scenario.

63 The NFCI stress test projections are derived from a supervisory model based on Kok et al. (2019), Details of how the supervisory model is calibrated and applied are provided in Annex X of the 2025 EU-wide stress test – Methodological Note.

models, which rely heavily on services remunerated by fees and commissions. The more stable evolution of NFCI projections for custodians and asset managers results in this item contributing significantly to their CET1 capital ratio over the scenario horizon.

Chart 3.18

NFCI evolution under the adverse scenario, with haircut and contribution by business model



Sources: EU-wide stress test submissions, ECB and ECB calculations.
Notes: Historical values are expressed as a share of REA at the end of the respective year. For 2024, REA at end-2024 restated under the CRR3 is considered. Stress test projection values are expressed as a share of end-2024 REA restated under the CRR3. Panel a: the historical change in NFCI covers an unbalanced panel, as not all institutions in the 2025 stress test sample have been reporting supervisory data to the ECB since 2014; differences between using the full stress test sample compared with the common sample of reporting banks between the 2025 stress test and historical reporting years are marginal. Panels b and c: see Chart 3.13 for an explanation of the business model types.

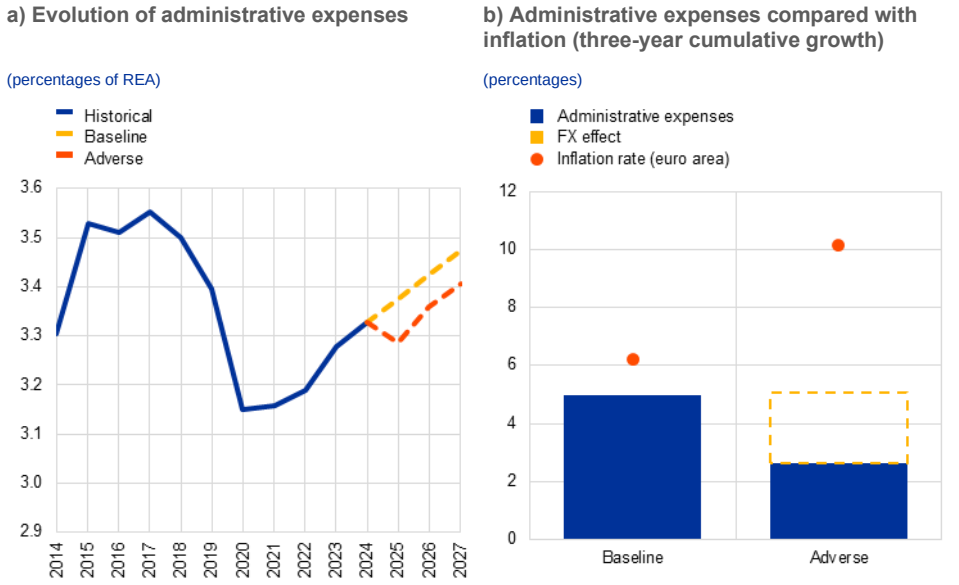
3.6 Other items

According to banks' projections, administrative expenses will follow an upward trend over the stress test horizon, in line with the inflation rates foreseen for both the baseline and the adverse scenario (Chart 3.19, panel b). By 2020, administrative expenses as a percentage of REA had declined to historically low levels, but they have been increasing since then, reflecting inflationary pressures in recent years (Chart 3.19, panel a). In the stress test, banks project an increase in administrative expenses overall by the end of the next three years in both the baseline and the adverse scenario. In the baseline, this increase is due to the positive growth outlook and positive, though moderate, inflation rates. In the adverse scenario, inflation rates may be subject to even stronger upward pressure, while more depressed economic conditions may exert downward pressure. The smaller increase under the adverse scenario compared with the baseline is also

partly a result of the cushioning effect of FX-denominated expenses,[64] which exert a material downward impact, particularly during the first year of the stress test. In addition, the banks also project lower variable remuneration expenses in the adverse scenario.

Chart 3.19

Administrative expenses and inflation



Sources: EU-wide stress test submissions, ECB and ECB calculations.
Notes: Panel a: the historical evolution of administrative expenses covers an unbalanced panel, as not all institutions in the full 2025 stress test sample have been reporting supervisory data to the ECB since 2014; differences between using the full stress test sample, compared with the common sample of reporting banks between the 2025 stress test and historical reporting years, are assessed to be marginal. Historical values are expressed as a percentage of REA at the end of the respective year. For end-2024, REA restated under the CRR3 is considered. Stress test projections are expressed as a percentage of end-2024 REA restated under the CRR3. Panel b: administrative expenses are net of expenses for conduct and other operational risk; they are expressed in terms of three-year cumulative growth from the starting point (which is adjusted for potential one-off expenses incurred by banks in 2024 but not recurring in the period 2025-27). The impact from FX effects is an estimation based on the breakdown of banks' 2024 administrative expenses by currency, as reported in the stress test templates.

Staff-related expenses make up the largest share of administrative expenses. In the 2025 stress test, banks report other remaining administrative expenses[65] at a more granular level for the first time. At the end of 2024, staff expenses accounted for most of system-level administrative expenses (€188 billion of the total of €300 billion), with fixed remuneration representing the largest item (€124 billion; Chart 3.20). Banks with staff involved in market activities usually report a higher share of variable remuneration over total staff expenses, with investment banks at 26%, G-SIBs at 18% and custodians and asset managers at 13%. Other staff expenses not linked to remuneration are significant only in particular instances, for example in the case of banks that offer specific benefits to their employees.

64 Under the baseline, exchange rates are assumed to remain constant at their starting value at year-end 2024. Exchange rate shocks applicable in the adverse scenario consist of an appreciation of the euro against certain currencies, leading to an overall decline in administrative expenses, which are reported in euro in the exercise.

65 Projected administrative expenses exclude expenses for operational risk, which are dealt with separately (see Section 3.4). The 2025 EU-wide stress test – Methodological Note foresees that projected administrative expenses cannot fall below the 2024 level, adjusted for foreign exchange rate effects.

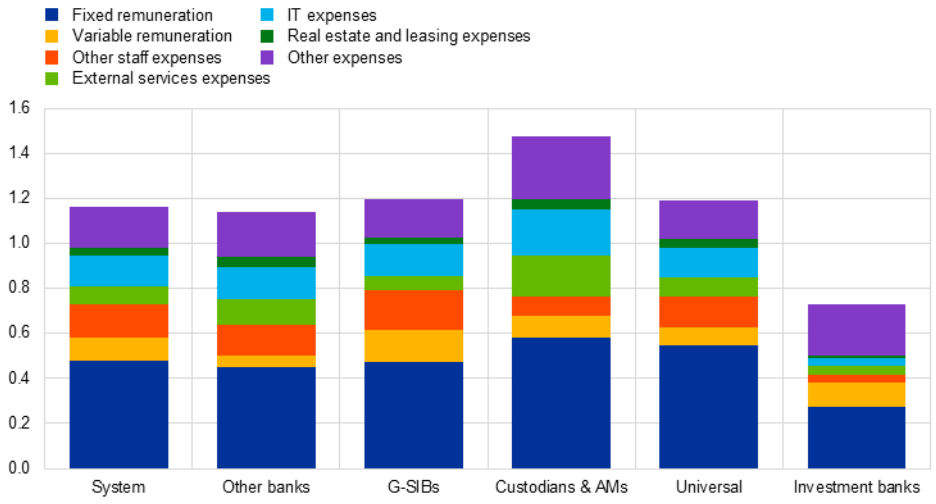
After staff expenses, IT expenses are the next largest administrative expense item. The relatively high IT expenses reflect significant investments by banks in recent years, which may be related, for instance, to cloud migration, the modernisation of core banking systems and the use of innovative technologies. There are some notable differences in IT expenses across banks. Specifically, smaller banks – such as small market lenders – spend three times the system average on IT expenses relative to their size. This is probably due to the lack of economies of scale, which causes competitive disadvantages for smaller entities. By contrast, IT expenses are much lower for banks which are subsidiaries of non-EU groups, as they often rely on other group entities to provide them with IT services. For example, investment banks report IT expenses (relative to their size) of about a quarter of the system average. Other administrative expense items are relevant for only a small number of banks; for instance, custodians and asset managers report high costs linked to consulting, advertising or litigation.

Chart 3.20

Cost-to-assets by business model

2024 administrative expenses over total assets by business model

(percentages)



Sources: EU-wide stress test submissions, ECB and ECB calculations.
Notes: Other banks comprises diversified lenders, corporates/wholesale lenders, small market lenders, retail lenders and development/promotional lenders; G-SIBs stands for global systemically important banks; Custodians & AMs stands for custodians and asset managers; Universal stands for universal banks. All figures were computed by dividing the 2024 administrative expenses net of expenses for conduct and other operational risk by the total assets at year-end 2024 (for all banks classified as using the respective business model under consideration).

Banks' administrative expense projections have a relatively stable distribution across items. Under the adverse scenario, administrative expenses increase by 2.6% by year-end 2027 (Chart 3.19, panel b). Staff expenses stand out as the expense component most significantly affected by the adverse scenario (Chart 3.21). The share of fixed remuneration in total administrative expenses increases from

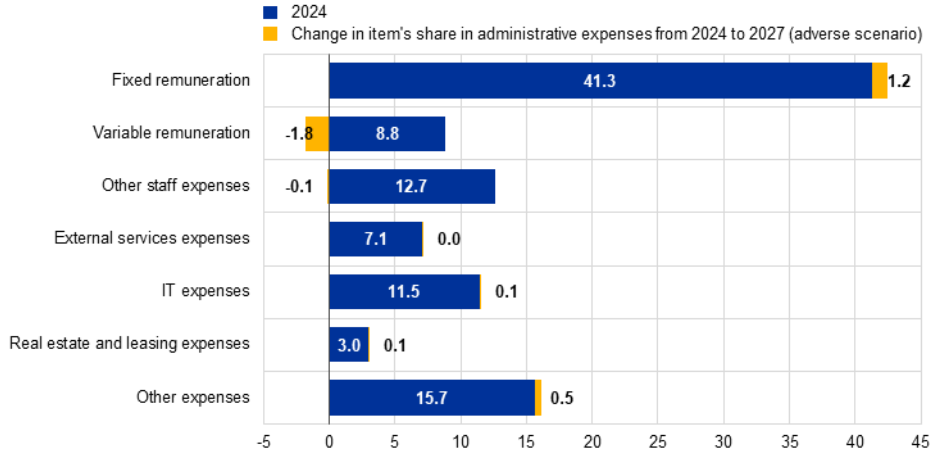
41.3% in 2024 to 42.5% at year-end 2027.[66] By contrast, the contribution of variable remuneration to administrative expenses decreases from 8.8% to 7.0% by end-2027, reflecting its role as a buffer in banks' cost structures.[67] The adjustment can be explained by banks' decision to link variable remuneration to revenues and internal targets, which are negatively affected by the adverse scenario.

Chart 3.21

Contribution of administrative expenses items

Relative contribution of administrative expenses items, historical and adverse projections

(percentages of aggregate administrative expenses)



Sources: EU-wide stress test submissions, ECB and ECB calculations.
Note: All figures were computed by dividing the figure for the expense item under consideration by the administrative expenses net of expenses for conduct and other operational risk for the respective year (2024 or 2027).

REA increases from its end-2024 starting level in both the baseline and the adverse scenario. In the baseline, REA contributes 0.5 percentage points to CET1 ratio depletion, while under the adverse scenario REA contributes 1.1 percentage points. The increase in REA is predominantly driven by credit risk (Chart 3.22, panel a), while only a minor part is attributable to market risk.[68] Operational REA does not contribute to the increase as the EBA methodology stipulates that these must remain constant at their end-2024 starting level in both scenarios. This static assumption is generally conservative, as operational REA under the CRR3 could decrease in a stress scenario due to the reduction in the balance sheet items they are computed on.

66 Under the adverse scenario, fixed remuneration increases in 2025, 2026 and 2027 with year-on-year changes of +1.1%, +2.5% and +1.9% respectively, yielding a 5.6% cumulative growth over the three-year horizon. This compares with a cumulative three-year inflation rate of 10.1% for the euro area assumed in the adverse scenario, thus reflecting a pass-through of inflation to fixed wages of significantly below 1. It should be noted that the projected growth in fixed remuneration already takes into account the cushioning effect of the FX shocks assumed in the adverse scenario (see footnote 64) as well as potential one-off expenses incurred by banks in 2024 but not recurring in the period 2025-27. Both of these items contribute to the low pass-through figure.

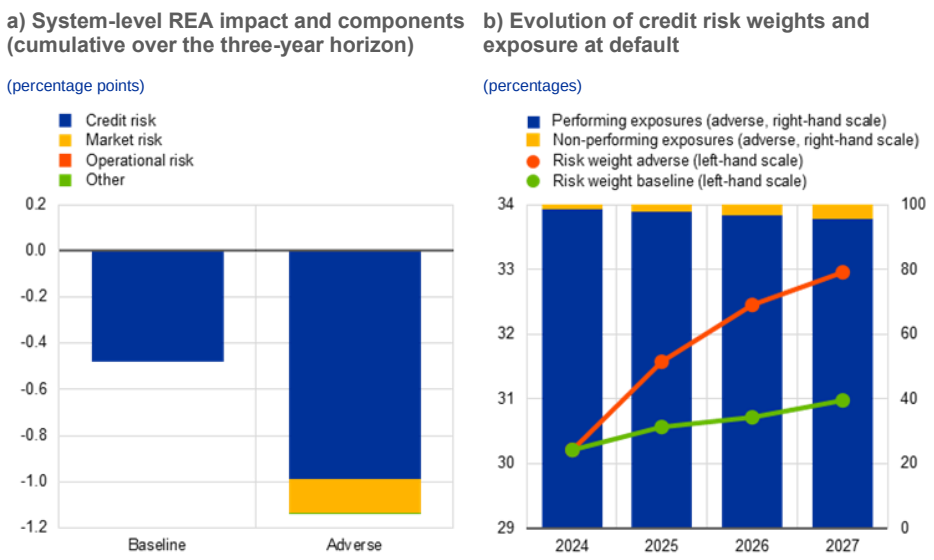
67 Under the adverse scenario, banks project variable remuneration at system level to decrease sharply in 2025, while only marginally increasing in 2026 and 2027, with year-on-year growth figures of -30.3%, +22.4% and -4.4% respectively.

68 According to the 2025 EU-wide stress test – Methodological Note, market REA must stay constant in the baseline.

The increase in credit REA under the adverse scenario is due to the higher overall risk weights as exposures move to default, as well as to the increase in risk weights for non-defaulted exposures stemming from the deterioration in borrowers' repayment capacity (Chart 3.22, panel b). In the baseline, the increase in credit REA is mainly explained by methodological prescriptions that prevent loans from curing once reaching default status, thus leading to higher risk weights, as well as by the methodological lower limit for the projections.[69]

Chart 3.22

Projected evolution of risk exposure amounts, credit risk weights and exposure at default



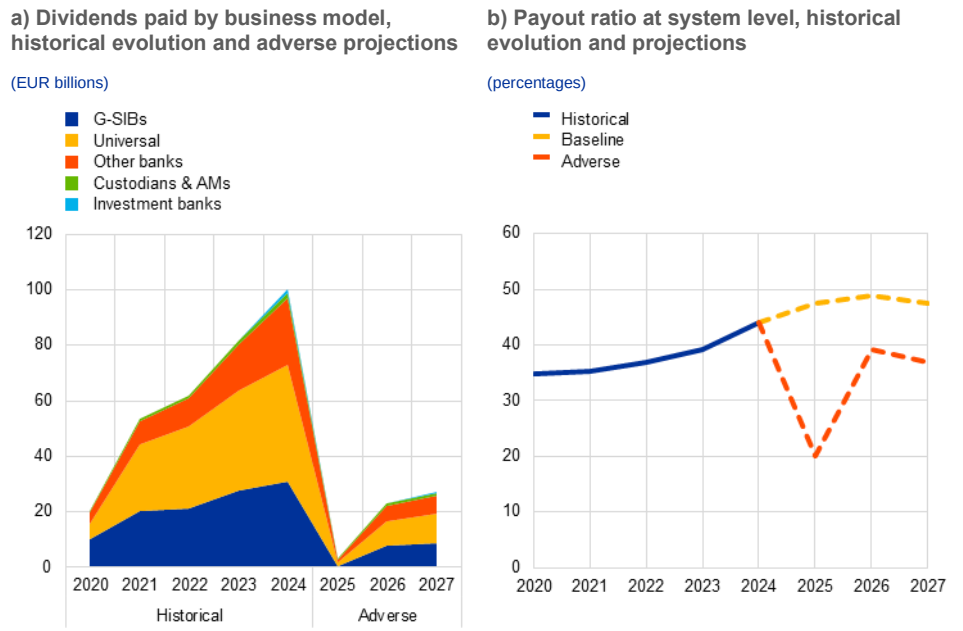
Sources: EU-wide stress test submissions, ECB and ECB calculations.
Note: Panel a: the impacts were computed based on end-2024 REA restated under CRR3 rules.

Other profit and loss items, by their nature, offset the lower revenues identified in the adverse scenario. Specifically, the most significant effects in the adverse scenario are due to a reduction, in absolute value, of some profit and loss outflows. These are driven by lower dividend distributions (Chart 3.23) and taxes paid, with a beneficial impact, in terms of lower distributions and payments compared with 2024, of €241 billion (-2.7 percentage points CET1 ratio depletion) and €170 billion (-1.9 percentage points CET1 ratio depletion) at system level, respectively.

[69] Projected risk exposure amounts cannot decrease below the end-2024 level value acting as a floor, according to the 2025 EU-wide stress test – Methodological Note.

Chart 3.23

Dividend payments



Sources: EU-wide stress test submissions, ECB and ECB calculations.
Notes: Panel a: the dividend payments projected under the adverse scenario refer to the dividend payments (including share buybacks and AT1 coupon payments) that banks plan to conduct in the adverse scenario after taking into account potential capital targets as specified in banks' dividend policies and possible payout restrictions (either imposed by the supervisory authority or due to breaches of their respective MDA trigger point). Panel b: the chart shows the simple average of all 96 banks' payout ratios, computed by dividing dividends paid by the profit for the respective year attributable to owners of the parent. According to the methodology, this is limited to a range between 0% and 100%. In the case of dividends paid with negative profits, the payout is 100%. Dividends paid are defined after consideration of MDA-related payout restrictions and including all voluntary reductions in the capital base (e.g. share buybacks).

The lower amount of taxes paid in the adverse scenario is caused by the lower pre-tax profits and pre-tax MDA-related adjustments. Against this background, country-specific bank levies have also been taken into account in the projections, both in the case of non-recurring taxes, treated as one-off profit and loss events, and in the case of additional taxes foreseen for 2025-27. As for net operating income, a decrease is observed for dividend income (€-9 billion) and other operating income (€-12 billion). This is partly counterbalanced by lower remaining other operating expenses (€-5 billion). Finally, pre-tax profits under the adverse scenario are also affected by the change in the share of the profit or loss of investments in subsidiaries, joint ventures and associates accounted for using the equity method (€-19 billion). All other profit and loss items undergo negligible aggregate variations from the starting point, both in the baseline and in the adverse scenario. It is also noted that taxes paid in the baseline are, on an aggregated level, greater than in 2024 owing to the simplified tax rate of 30% provided for by the methodology, which is generally higher than the actual rate observed in 2024.

4 Integration into SREP

The 2025 stress test of euro area banks contributes to the overall SREP, which aims to ensure that institutions have adequate capital and liquidity resources, as well as sound risk management and internal controls. It does so by considering both qualitative and quantitative findings.

4.1 Qualitative findings – SREP Element 2 (internal governance and risk management)

Qualitative findings from the stress test exercise are included in the SREP assessment. The Joint Supervisory Teams (JSTs) take several aspects of the institution's performance into account, including the timeliness and accuracy of the data, the overall level of cooperation and requests between the ECB and the institution (including information requests), and the quality of the information provided.

Measurable criteria are applied to consistently identify data quality issues which could hamper proper reporting in the context of the stress test. Thus, quantitative metrics, generated directly from IT-based data, support the assessment by providing measurable criteria to score the data quality of the banks' submissions. Both the institutions' ability to cope with the data requirements and their responsiveness throughout the stress test are measured. In addition, JST judgement is taken into account. JSTs carry out a qualitative assessment of the institution's performance during the stress test quality assurance cycles.

Institutions' performance in the stress test feeds into the broader JST assessment of RDAR, as part of SREP Element 2. In the context of the current SSM supervisory priorities for 2025-27, in which RDAR remains a key focus, institutions for which severe weaknesses have been identified – for instance in successive stress tests – and whose management bodies have otherwise failed to address identified problems in a serious and sufficiently rigorous manner could be subject to qualitative measures with potential for further escalation, including for instance additional Pillar 2 requirements (P2R), enforcement actions and sanctions.

In addition, qualitative findings referring to stress test modelling deficiencies also serve to inform JSTs about the banks' risk management adequacy. The quality assurance process identified a series of weaknesses in some banks' modelling approaches and capacities in terms of quantifying sectoral and leveraged loan losses. More broadly, data quality issues and modelling deficiencies flagged during the stress test serve to inform JSTs of the need address banks with requests for further improvements and/or the need to plan more in-depth assessments (e.g. by means of dedicated on-site inspections or targeted reviews).

Box 6
Managing geopolitical risks

The 2025 stress test helps assess banks' resilience to the materialisation of geopolitical risks. Geopolitical risk is a crucial part of the adverse scenario narrative. This scenario features an escalation of geopolitical tensions coupled with increasingly inward-looking trade policies, which contribute to a fragmentation of the global supply system. Therefore, among other things, the stress test provides an indication of banks' resilience against geopolitical risk as a driver of financial risks. Geopolitical risk is a key component of the supervisory priorities for the period 2025-27. ECB Banking Supervision is thus taking a broader perspective and looking beyond the stress test to ensure that banks properly account for this cross-cutting risk driver in their risk management frameworks.

Banks are exposed to many forms of geopolitical risk affecting both traditional financial risks and non-financial risks. ECB Banking Supervision has developed a framework to assess the transmission of such threats to banks and their operating environment.[70] Geopolitical risks are defined broadly as the threat, realisation and escalation of adverse events associated with wars, terrorism and any tensions among states and political actors that affect the peaceful course of international relations.[71] Banks may be affected via their direct exposures to a region or country or via indirect exposures if geopolitical events negatively affect their clients' ability to honour debt obligations. In addition, financial market volatility triggered by geopolitical shocks can affect banks' asset portfolios or increase banks' foreign exchange risks. In addition, liquidity may become concentrated, leading to funding problems or increased funding costs. Geopolitical events can also affect banks through cyberattacks or by jeopardising operational resilience. A possible concentration in and dependency on third-party providers in outsourcing arrangements could be a risk to operational resilience. Loss of data or access to software, whether temporary or with more long-term effects, may also arise from geopolitical events. In addition, electrical power outages can affect bank operations, given the relatively high level of digitalisation in banking.

Geopolitical risk is not a new risk. It is a risk driver that can have effects on traditional banking risks such as business model risk, foreign exchange and funding risk, credit risk, market risk and operational risk. As geopolitical events affect existing risks, banks should follow existing supervisory guidance in managing geopolitical risks. ECB Banking Supervision has published recommended practices for banks' credit risk management[72], the internal capital adequacy assessment process (ICAAP)[73], the internal liquidity adequacy assessment process (ILAAP)[74] and the risk appetite framework[75]. Applying these practices to geopolitical risks would be a good starting point for managing them.

A robust governance framework is a fundamental element in managing geopolitical risks. Deficiencies in this area may translate into poor decision-making, often resulting in imbalances between risk-taking and risk control. If severe, such deficiencies can materialise over time as risks to capital, also undermining institutions' operational resilience. This is especially important in an environment in which institutions face economic, financial and competitive headwinds caused by

70 See Buch (2024).
71 See Caldara, D. and Iacoviello, M. (2022).
72 See European Central Bank (2021).
73 See European Central Bank (2018a).
74 See European Central Bank (2018b).
75 See European Central Bank (2016).

geopolitical events. Good governance includes (i) a clear organisational structure with well-defined, transparent and consistent lines of responsibility, (ii) management body oversight, (iii) effective risk management processes, and (iv) adequate control mechanisms that are consistent with and promote sound and effective risk management. A sound risk appetite framework and the ability to effectively aggregate and report on risk data are crucial elements in this connection.

Managing geopolitical risks also requires robust protection against cyber threats and other threats that can affect the operational resilience of banks, which means, for example, implementing measures to ensure safety and protect against physical damage. Geopolitical tensions can significantly affect an institution's operations, potentially leading to service disruptions. Dependencies on third-party service providers need to be managed to limit the risk of operations being disrupted and the delivery of essential services being impaired. Disruptions to information and communication technologies can affect critical services, including cloud services. Data leaks and cybersecurity threats such as distributed denial-of-service (DDoS) attacks can tarnish banks' reputation. It is important that banks implement preventive measures to safeguard against these risks. Geopolitical conflicts often lead to international sanctions, so institutions need to maintain robust compliance and monitoring frameworks. In addition, geopolitical events can result in physical threats, such as infrastructure damage and staff safety risks. Banks should have in place contingency planning, sufficient internal knowledge and staff trained to mitigate these risks.

As a first step, it is useful for banks to have in place internal processes to identify events that could spill over into risks to the institution and their clients. How would the bank's direct exposures or exposure to clients be affected if a regional conflict were to escalate, resulting for instance in international sanctions? Would this have an impact on delivery channels and international trade? Would it affect the financial markets? Or would it have an impact on energy prices? Assessing such events in terms of the into vulnerabilities and risk they bring risks is a good initial step towards geopolitical risk management. Not all banks will be equally exposed to a certain geopolitical event, so it is important that each institution has an internal process to identify the events that would be most relevant for the institution. It is also considered useful to monitor developments on an ongoing basis, so as to detect relevant events and respond quickly. Some banks have an "early-warning" system in place for this purpose. While exposure to financial risks may be higher for banks that are internationally active, all banks can be exposed to the risks embedded in third-party outsourcing arrangements, for instance.

As a second step, it is important to use a range of tools to try to simulate the impact of geopolitical risk on traditional banking risks. One type of geopolitical event may have an impact on trade, growth, inflation and unemployment, and macro effects of this kind can be simulated using internal stress testing tools, including reverse stress testing. Another type of event may directly affect the business viability of bank clients. Simulating such events using scenario analysis, for instance shifting the probability of default or loss given default, can provide valuable insights into how big the impact would be.

As a third step, it is necessary to assess whether there is a need to take action. Credit risk may already be well captured and covered (i) through capital, as the change in REA affects the CET1 capital level, (ii) as a Pillar 2 risk within the ICAAP framework, or (iii) through the income statement by means of loan loss provisions or management overlays. Otherwise, the bank may wish to consider whether actions would be warranted to bring the risk to a level that is manageable. Some risks are better avoided, and banks may wish to consider how this can be achieved – even if the probability of such risks occurring is seen as very low. For geopolitical risks it is useful to "think

the unthinkable" and take action where necessary, taking into account proportionality, concentration risk and risk diversification. However, the crucial first step for any bank remains to identify the events that could affect that specific institution, then quantify the impact and take action to ensure the risk remains well managed and well covered by buffers where needed.

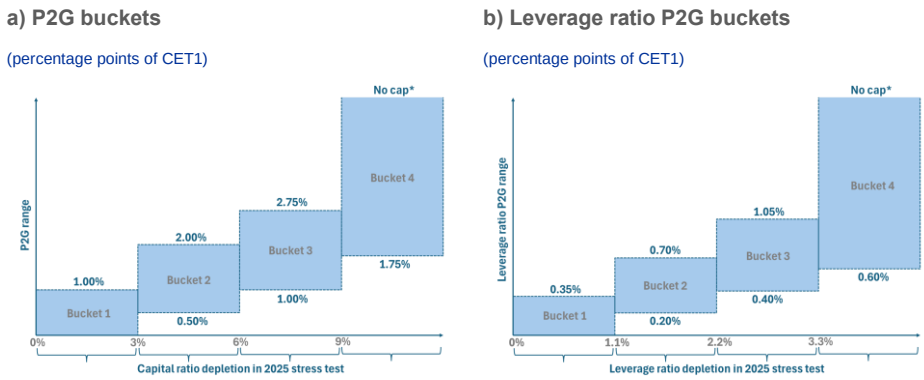
4.2 Quantitative findings – determination of Pillar 2 guidance

As in previous stress tests, the quantitative impact of the adverse scenario is used as a key input for supervisors to determine the level of Pillar 2 guidance (P2G) for individual banks. As evidenced by the stress test outcomes, there is significant variation in the extent to which individual banks are affected by adverse macroeconomic shocks and how those shocks materialise. The P2G is a bank-specific recommendation that indicates the level of capital the ECB expects banks to maintain in addition to their binding capital requirements to ensure they can absorb potential losses resulting from adverse scenarios, of which the stress test is a main anchor. It is to be communicated as part of the final SREP decisions (or operational letters) in the fourth quarter of 2025.

Following the methodology applicable since 2021, a two-step "bucketing" framework is used to determine P2G. This approach ensures a level playing field, improves consistency and takes into account banks' specific circumstances, while remaining simple in its design. In the first step, banks are allocated to buckets depending on the maximum fully loaded CET1 ratio depletion[76] under the adverse scenario (Chart 4.1, panel a). The buckets are structured in line with recent supervisory experience, supervisory risk tolerance and the severity of the stress test exercise. Overlapping P2G ranges for neighbouring buckets make it possible to avoid potential cliff effects between buckets. In the second step, JSTs exercise their expert judgement to adjust the P2G to reflect the profile of the individual institution. The JSTs are allowed to make adjustments within the ranges of the corresponding bucket and exceptionally beyond the range of the relevant bucket. This also makes it possible to address institution-specific situations, including for example material changes in the risk profile of the institution since the reference date of the stress test exercise, the year in which its capital ratio reached its lowest point during the stress test and relevant mitigating actions (such as asset disposals, restructurings, etc.).

[76] Using fully loaded depletion for the determination of P2G starting points implies that the non-economic restatement effect resulting from the introduction of the CRR3 as of 1 January 2025 is removed. This step is necessary to prevent the depletion from being artificially increased owing to the application of already known (i.e. not "unexpected") regulatory changes and is driven only by the economic sensitivity to stress test scenarios.

Chart 4.1
P2G and leverage ratio P2G buckets, and associated ranges



Sources: EU-wide stress test submissions, ECB and ECB calculations.
Note: Maximum P2G and maximum leverage ratio P2G are not capped.

In addition, the quantitative impact of the adverse scenario is also used to determine the leverage ratio P2G, in line with the approach used in 2023. The approach employed for the leverage ratio P2G is very similar to the two-step P2G approach described above. First, banks are allocated to buckets depending on the maximum leverage ratio depletion under the adverse scenario (Chart 4.1, panel b). Second, JSTs exercise their expert judgement to adjust the leverage ratio P2G to the profile of the individual institution. Leverage ratio P2G is only imposed for some institutions, for example where the projected leverage ratio falls below the overall leverage ratio requirement.

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For specific terminology please refer to the SSM glossary (available in English only).

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