Box 3.2

FORWARD-LOOKING ASSESSMENT OF THE SPANISH BANKING SYSTEM'S RESILIENCE

This box presents the stress tests conducted by the Banco de España to assess the Spanish banking system's resilience to the hypothetical materialisation of risk scenarios. In line with past assessments, the Forward-Looking Exercise on Spanish Banks (FLESB) methodology was used. The FLESB, developed and implemented centrally by the Banco de España, uses highly granular data and a top-down approach.[1]

Following the usual practice in these exercises, the FLESB has been used to evaluate the baseline and adverse scenarios of the latest EU-wide stress test coordinated by the European Banking Authority (EBA).[2] This adverse scenario envisages geopolitical risks that reduce economic activity and drive inflation, leading to a significant tightening of financial conditions.

In light of the current heightened uncertainty, it is valuable from the macroprudential perspective to complement the EBA adverse scenario with alternative hypothetical scenarios that capture other dimensions of systemic risk. Considering various hypothetical adverse scenarios allows for a more comprehensive assessment of the potential transmission channels associated with those scenarios, and therefore of the banking sector's resilience.

Accordingly, this box also presents the results of a hypothetical adverse scenario developed by the Banco de España, consistent with the risks identified in Chapter 5. This scenario is characterised by a deflationary environment and a persistent contraction in euro area economic activity (over a five-year horizon), linked to the fiscal vulnerabilities identified in advanced economies. This stands in contrast to the inflationary scenario and shorter three-year horizon envisaged in the EBA stress test. The Banco de España scenario also includes assumptions that reflect a potential escalation in trade tensions and a deterioration in financial markets amid the uncertainty associated with this environment.[3]

As in previous *Financial Stability Reports* (FSRs), the dynamic balance sheet assumption is applied, meaning that both the size of banks' balance sheets and the relative share of the various portfolios change depending on the scenarios.[4]

The EU-wide stress test scenarios

The baseline scenario of the EBA's 2025 stress test reflects the December 2024 Eurosystem staff macroeconomic projections.[5] Meanwhile, the adverse scenario captures the key risks to financial stability identified by the European Systemic Risk Board and the European Central Bank (ECB) at end-2024.[6]

In particular, the adverse scenario envisages a sharp escalation of geopolitical tensions (in their different dimensions), leading to the fragmentation of global supply chains and higher energy prices. This results in a negative supply shock with strong inflationary effects (Chart 1). Over the exercise horizon, the higher inflationary pressures drive up average short-term reference interest rates (Chart 2).

Euro area GDP is drastically reduced by the combined effect of trade fragmentation and a loss of confidence caused by the geopolitical uncertainty. Contrasting with the growth seen in the baseline scenario, in the adverse scenario GDP contracts by a cumulative 6.2%. In the case of Spain, which has higher initial growth projections in the baseline scenario than the broader euro area, the cumulative GDP contraction is limited to 4.1% (Chart 3).

Despite the initial inflationary shock, the disinflationary impact of depressed aggregate demand dominates from 2026, bringing inflation down towards its target of 2% in 2027 (Chart 1). Spain's inflation path is very similar to that of the euro area overall under both the baseline and adverse scenarios.

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1 As a top-down methodology, the FLESB applies the same scenarios, assumptions and models consistently across all of the banks analysed. Its key features were described in the November 2013 *Financial Stability Report* (FSR). As a dynamic framework in constant evolution, its main improvements and developments have been documented in subsequent editions of the FSR and other Banco de España publications.

2 This exercise was conducted in 2025 and the results published in August. For more details, see the information published by the EBA on the latest EU-wide stress test.

3 These two elements – the trade tensions in particular – are qualitative aspects common to both scenarios.

4 Loan portfolio dynamics depend on the credit growth projected in each macroeconomic scenario. This affects both the volume of performing loans (which generate income) and the growth of risk-weighted assets. Under economic downturn scenarios, declines in lending to the non-financial private sector are projected across different portfolios and countries of exposure.

5 See the information on the ECB's macroeconomic projections for more details.

6 For further details, see the macro-financial scenario for the EBA's latest EU-wide stress test.

Chart 1
Inflation scenarios in the euro area

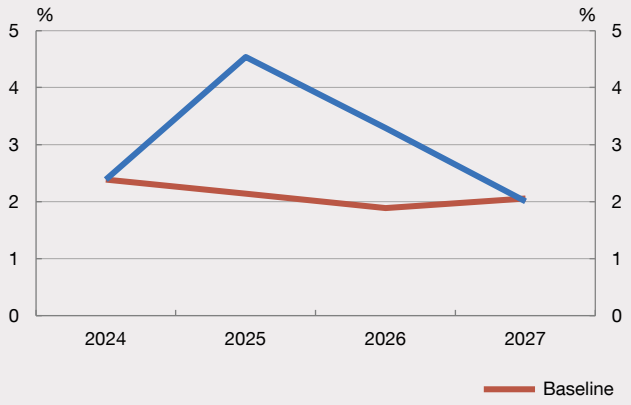


Chart 2
Short-term interest rate scenarios in the euro area (a)

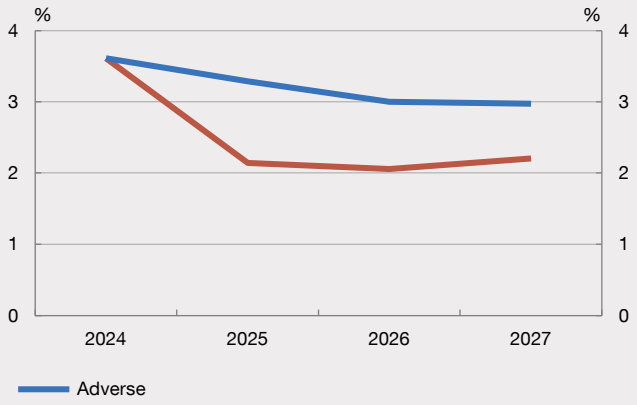


Chart 3
Real GDP scenarios in Spain and the euro area

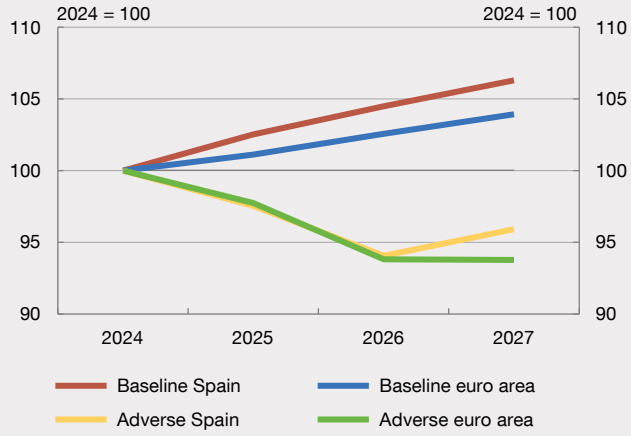
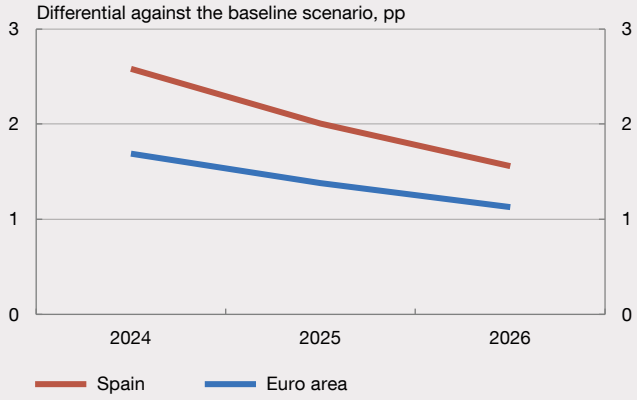


Chart 4
Long-term interest rate scenarios in Spain and the euro area (a)



SOURCES: Banco de España.

a The short-term rate paths are for the 3-month EURIBOR.

The initial geopolitical shock also triggers a sharp and broad-based drop in risky asset valuations across financial markets and in real estate prices. The subsequent tighter financing conditions then exert a further drag on EU firms' investments and households' consumption, contributing to the GDP contraction.

In this environment, the markets adopt a more negative view of the existing fiscal weaknesses, leading to higher sovereign risk premia. In Spain, long-term rates initially diverge from the baseline scenario by 2.5 pp, exceeding the deviation for the euro area as a whole. This increase fades partially over the 2025-27 horizon (Chart 4).

Chart 5 shows the average differences between the baseline and adverse scenarios for Spain's key macro-financial variables. Also worth noting is the sharp contraction in Spain's house prices in the adverse scenario.

Given the global nature of the geopolitical shocks envisaged, the adverse international macroeconomic environment is not confined to Europe. In the case of non-EU countries that are material for Spanish banks, the adverse scenario generally entails a shift into a recessionary landscape with higher average inflation (Chart 6). As in the euro area, rising inflation pushes short-term interest rates higher, which – together with greater

Chart 5
Macroeconomic scenarios in Spain

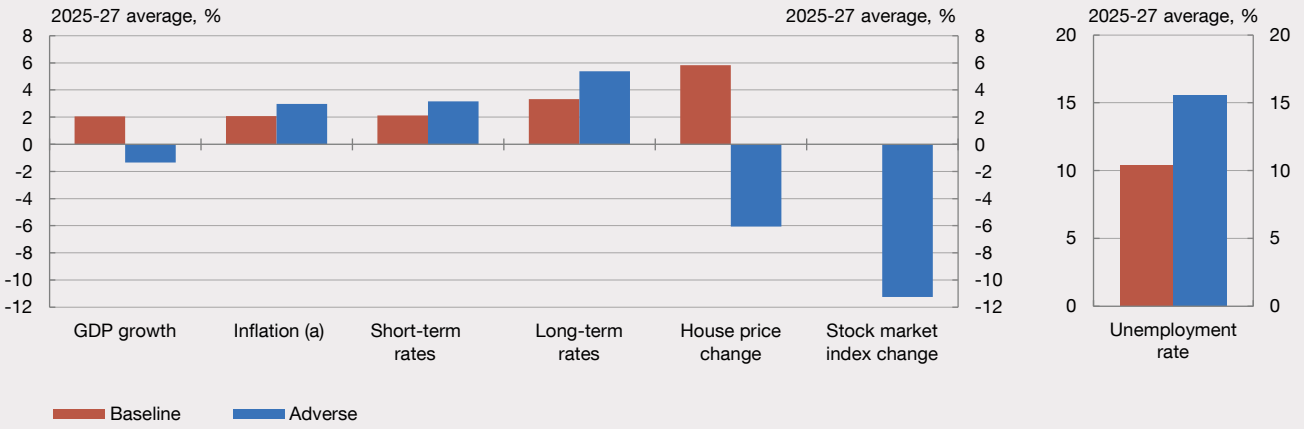


Chart 6
Real GDP growth and inflation under the baseline and adverse scenarios, distribution by country. 2025-27 average (a) (b)

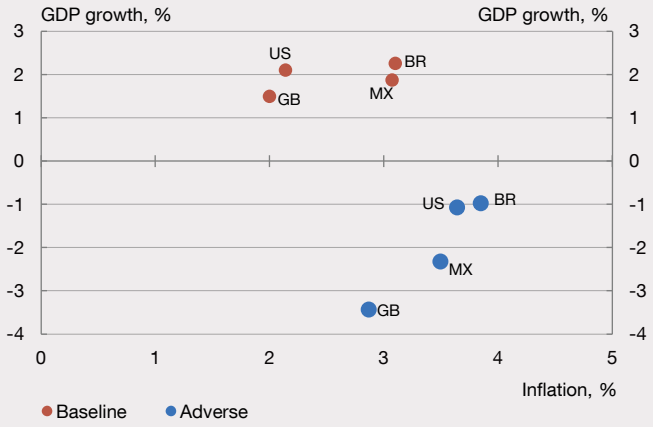
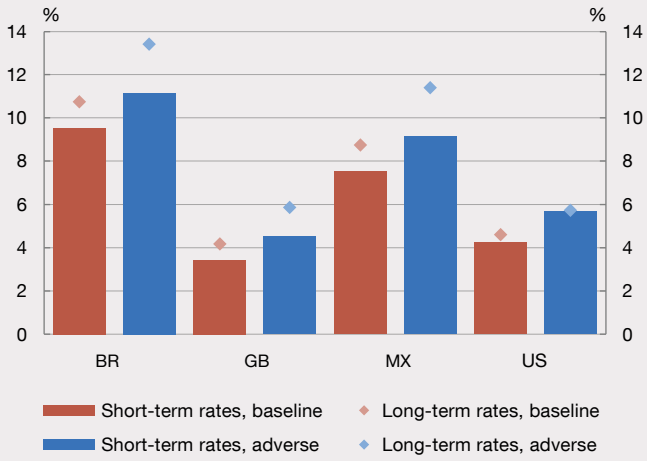


Chart 7
Short and long-term rates under the baseline and adverse scenarios, by country. 2025-27 average (c)



SOURCE: Banco de España.

a Inflation is calculated based on the harmonised index of consumer prices (HICP).
b Türkiye has values that fall outside the range of the chart: average inflation is 19% in the baseline scenario and 20% in the adverse scenario; GDP growth is 3.1% in the baseline scenario and -2.2% in the adverse scenario.
c Türkiye has values that fall outside the range of the chart: short-term rates are 33% in the baseline scenario and 36% in the adverse scenario; long-term rates are 24% in the baseline scenario and 26% in the adverse scenario.

risk aversion in financial markets – drives up costs for long-term government debt (Chart 7).

The solvency of the Spanish banking sector

This section examines how the adverse scenario would impact Spanish banks' solvency, as measured by the fully loaded[7] CET1 capital ratio.

For the capital position (the numerator of the ratio), the negative impacts stem essentially from (i) higher credit impairment charges and a reduction in the value of banks' other assets, such as fixed-income portfolios (particularly government debt) and foreclosed assets, and (ii) lower profit generation in Spain and abroad. Conversely, there are some mitigating effects that have a positive impact on capital, such as lower tax payments and profit

7 The term "fully loaded" means the ratio is calculated excluding transitional arrangements.

Chart 8
Net impact on CET1 ratio through different channels (a)

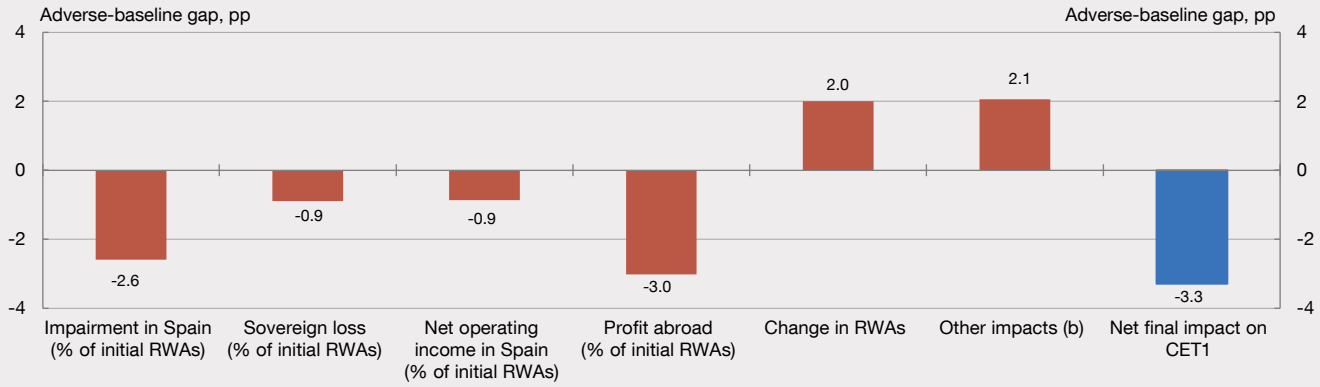


Chart 9
Profit after tax

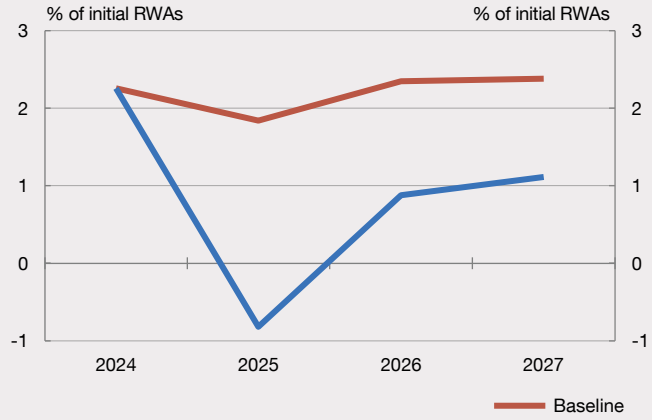
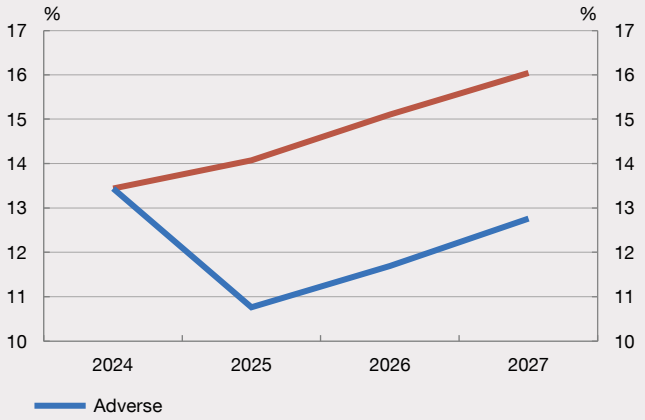


Chart 10
CET 1 ratio



SOURCE: Banco de España.

a The impacts refer to changes in the CET1 ratio projected for 2027 and in financial flows projected for 2025–27 (e.g. capital generation) stemming from the difference in macro-financial conditions between the adverse and baseline scenarios.
b Other consolidated gains and losses, tax effects, exchange rate effects, profit distribution and coverage of losses on ICO-backed loans (guaranteed by the Government).

distribution, as well as the ICO public guarantee programme.[8]

Meanwhile, changes in risk-weighted assets (RWAs) – the ratio's denominator – tend to contribute positively to the solvency ratio in contractionary macroeconomic environments, due to the reduction in banks' balance sheets and, in particular, lending.

Chart 8 shows, for the aggregate of the banks analysed, the cumulative impacts on the solvency ratio over the adverse scenario horizon.[9] These impacts are presented as differences relative to the baseline scenario.

In Spain, the larger credit impairment losses reduce the CET1 ratio by 2.6 pp compared with the baseline scenario (normalised relative to initial RWAs). These

8 The ICO public guarantee programmes were introduced in response to the COVID-19 pandemic and protect banks against defaults by borrower firms. The average impact is calculated between two hypothetical extremes: a lower bound where the expected loss on guaranteed loans is equal to the corporate portfolio average, and an upper bound where guaranteed loans are concentrated among riskier debtors.

9 The banks analysed include all of the significant institutions supervised by the Single Supervisory Mechanism and less significant institutions under the direct supervision of the Banco de España.

losses are compounded by impairments in the consolidated group's sovereign bond portfolio and lower net operating income in Spain (due to lower business volumes, which more than offset the higher interest rates). Meanwhile, lower net profit abroad has a negative impact, reducing solvency by 3 pp compared with the baseline scenario.[10]

The reduction in RWAs makes a positive contribution (2 pp versus the baseline scenario). Other impacts (exchange rate fluctuations, lower profit distribution, a reduced tax burden and ICO guarantees) also contribute positively (a further 2.1 pp compared with the baseline scenario). Overall, the net effect of the above impacts is to reduce the aggregate CET1 ratio at the end of the horizon by 3.3 pp compared with the baseline scenario.

Strong profitability and CET1 ratios – both initially and under the baseline projections – mean that, despite this significant 3.3 pp gap between the baseline and adverse scenarios, the CET1 ratio remains relatively high at the end of the adverse scenarios.

Charts 9 and 10 show developments in profit after tax (combining business in Spain and abroad) and the CET1 ratio over the three-year horizon for the banks as a whole. Under the baseline scenario, profit holds at between 1.8% and 2.4% of RWAs, while the CET1 ratio rises steadily to 16% in 2027[11] (up by 2.6 pp on 2024).

Under the adverse scenario, the abrupt change in expected losses (due to the shift from a growth scenario to one of severe macro-financial deterioration) leads to a sharp increase in provisions and a marked drop in profits in the first year, driving the CET1 ratio down to 10.8% in 2025[12] compared with 13.4% observed in 2024.

However, over the rest of the projection horizon the solvency ratio follows an upward trajectory. This owes to the return to positive profits – albeit significantly lower than under the baseline scenario – and the reduction in RWAs. Overall, the aggregate CET1 ratio holds at relatively high levels (12.8%) and above minimum requirements.

Chart 11 shows the stress test results disaggregated by groups of banks. The groups are as follows: (i) significant institutions supervised by the Single Supervisory Mechanism (SSM) with considerable international activity (the "International group");[13] (ii) other significant institutions directly supervised by the SSM (the "Other SSM group"); and (iii) an aggregate of smaller banks directly supervised by the Banco de España without significant international activity, referred to as less significant institutions or LSIs (the "LSI group").

By the end of the baseline scenario horizon all bank groups have higher capital levels than in 2024.

Under the adverse scenario the solvency ratio for both groups of significant banks (International and Other SSM) falls in the first year (2025) and gradually recovers over the rest of the horizon. Although CET1 ratios do not return to their initial level, they remain relatively high and above the regulatory minimums. The LSI group is the most resilient, with a low of 22.2% and a final solvency ratio of almost 26%. Chart 12 breaks down the factors behind these changes for the various groups of banks.

These results are better than those obtained in the previous stress tests conducted by the Banco de España.[14] This owes, first, to the better starting position from which the Spanish banking sector enters the hypothetical adverse scenario. Thus, the CET1 ratio has grown (by +0.4 pp on aggregate in fully loaded terms, relative to 2023) and Spain's credit risk metrics have improved (as reflected at aggregate level in lower non-performing and stage 2 ratios) (see Chart 3.8 in Chapter 3).

10 Profit abroad is grouped as a single concept, while the impacts in Spain are divided into different channels. For instance, the combined negative effect of credit impairment and lower net operating income in Spain is 3.5 pp. The profits recorded in business abroad provide some resilience and diversification, helping to underpin the aggregate CET1 ratio.

11 As an additional exercise, results were also obtained for a more up-to-date baseline scenario based on the September 2025 macroeconomic projections. These projections envisage a very similar performance in activity to that expected in winter 2024, with the CET1 ratio virtually unaffected compared with the results presented here.

12 At aggregate level, the drop in the CET1 ratio in the first year under the adverse scenario stems not only from the net loss, but also from the direct impact of losses in sovereign bonds at fair value and from profit distribution (as, despite the aggregate net loss, some banks do turn a profit).

13 This group includes the three banks with the most significant and longest-standing international activity.

14 See Box 2.1 of the Autumn 2024 FSR.

Chart 11
Initial, final (2027) and minimum CET1 ratios under the EBA scenarios

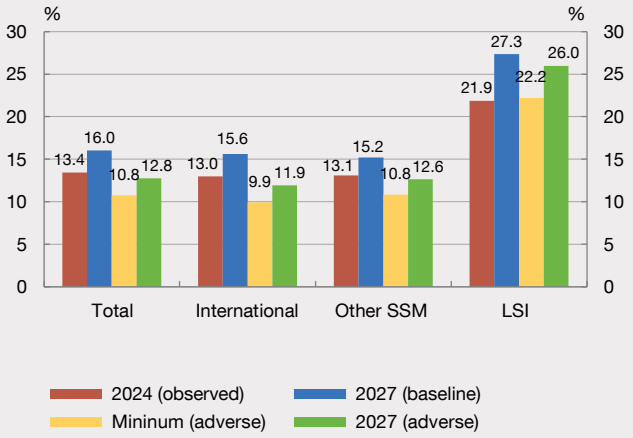
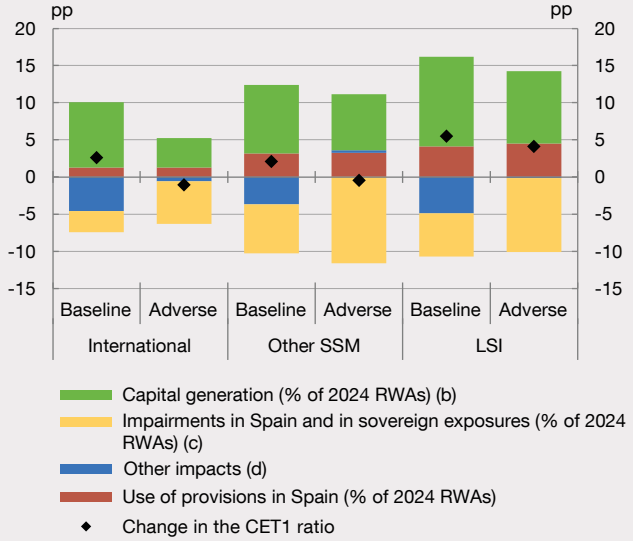


Chart 12
Impact of the risk materialisation scenarios on banks' solvency (a)



SOURCE: Banco de España.

a Impacts are defined as the changes in the CET1 ratio projected for 2027 and in financial flows projected for 2025–27 (e.g. capital generation) stemming from the difference in macro-financial conditions between the adverse and baseline scenarios.
b The generation of loss-absorbing capital is determined by net operating income in Spain and by the net profit/loss generated abroad for banks with significant international activity.
c Impairment losses on loans and foreclosed assets in operations in Spain and impact on capital of the potential impairment of sovereign exposures at consolidated level.
d Other consolidated gains and losses, tax effects, exchange rate effects, profit distribution, coverage of losses on ICO-backed loans (guaranteed by the Government) and changes in RWAs.

Moreover, although the scenario narratives are comparable, the more favourable macroeconomic performance and outlook since 2023 also provide a better starting point in this dimension of the exercise.

Results of the EU-wide stress test published by the EBA

The Spanish banking system's resilience to the EBA scenario was assessed using the FLESB methodology, yielding results consistent with those published by the EBA calculated using its own methodology. Both the FLESB and the EBA results suggest that the European banking system is highly resilient to a severe adverse scenario (Chart 13). The Spanish banks participating in this exercise[15] have initial capital levels below the EU average, but lower capital consumption (179 bp).

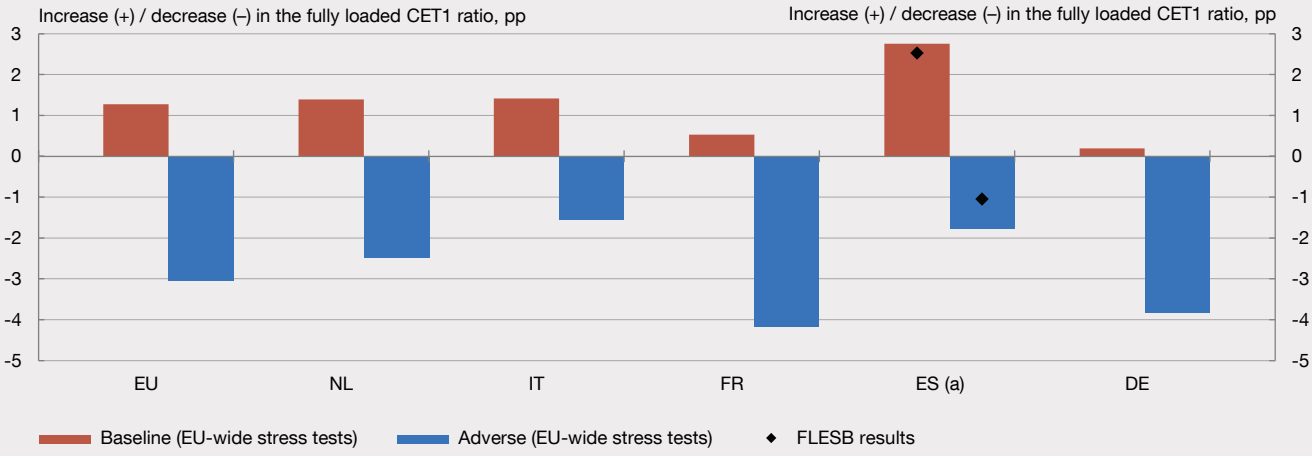
Alternative stress test with a five-year deflationary scenario

As explained above, in the current highly uncertain context, analysing the Spanish banking system's resilience considering a wide range of shocks and transmission channels is very useful from a macroprudential standpoint. Accordingly, the Banco de España is working to broaden its macroprudential stress tests by analysing a wider range of hypothetical scenarios that reflect different sources of systemic risk.

A case in point is the adverse hypothetical scenario presented below as an alternative to that coordinated by the EBA. This scenario considers two of the main sources of risk in the current environment: fiscal weaknesses having a greater impact on sovereign bond markets in the

15 BBVA, Banco Sabadell, Banco Santander, Bankinter, CaixaBank and Unicaja Banco. This exercise includes fewer banks than the FLESB exercise.

Chart 13
Results after three years of the EU-wide and FLESB stress tests



SOURCE: Banco de España.

a The results of the EU-wide stress test for Spain are for the aggregate of BBVA, Banco Sabadell, Banco Santander, Bankinter, CaixaBank and Unicaja Banco. The diamonds depict the FLESB results under the same scenarios as in the EU-wide exercise and for the same six banks on aggregate to enable comparison, even though the FLESB exercise includes additional institutions.

EU and other advanced economies and a potential escalation of global trade tensions (Chapter 5).

In particular, the scenario envisages a combination of (i) an EU sovereign debt crisis triggered by fiscal turmoil in France and a loss of confidence in US fiscal policy,[16] and (ii) an escalation in global trade tensions. This hypothetical scenario entails a marked increase in the risk premia demanded by investors across different asset classes, giving rise to a prolonged economic downturn, a sharp increase in unemployment and a deflationary environment.

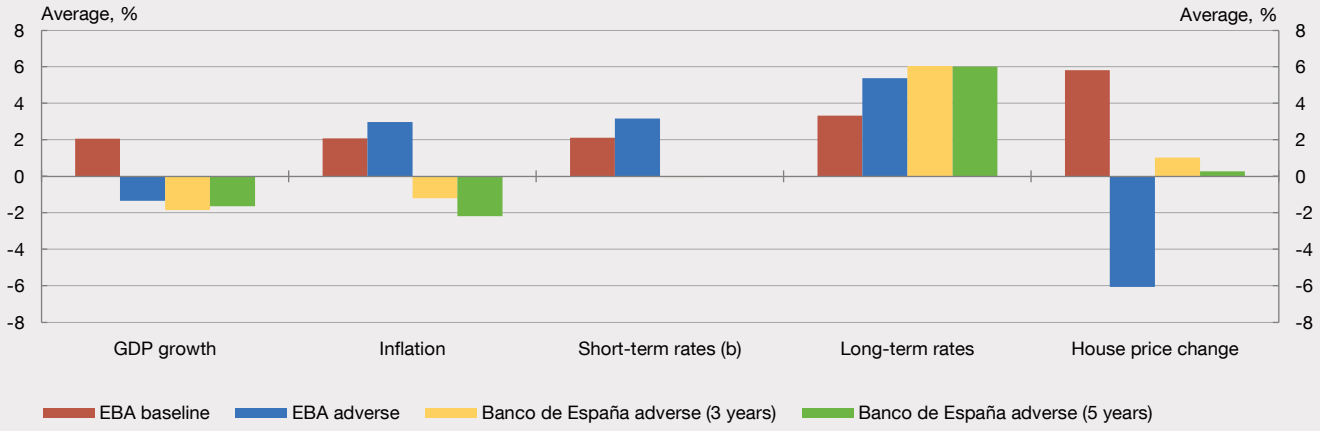
In contrast to the inflationary scenario considered in the EBA exercise, this alternative stress case involves a deflationary scenario in which the ECB responds to the fall in activity and inflation by lowering its key policy rates; however, amid high risk premia, fiscal policy is forced to act procyclically through a fiscal adjustment, which further deepens the drop in aggregate demand.

In this exercise the projection horizon has been extended to five years (rather than the usual three) to explore the implications of prolonged adverse scenarios. The aim is to assess a hypothetical situation in which the potential materialisation of risks linked to geopolitical factors or government debt could trigger persistent shocks.

Chart 14 compares the average values of Spain's main macro-financial variables under the EBA's baseline and adverse scenarios and under this alternative scenario designed by the Banco de España. In terms of GDP growth, the deflationary scenario is somewhat more severe, particularly over the three-year horizon, though the difference remains limited. By their very design, the scenarios follow completely different inflation paths, with price growth exceeding 2% on average in the EBA scenario and negative inflation rates below -2% in the Banco de España scenario. This is also reflected in the marked differences in the ECB's monetary policy response. Thus, short-term interest rates stand at 3% under the EBA scenario compared with approximately 0% under the Banco de España scenario. However, long-term government debt yields stand at similar levels in both scenarios, since risk premia rise more sharply in the

16 In the case of the EU fiscal crisis, the adverse shocks would significantly strain the fiscal equilibrium between revenue and expenditure in several Member States. The assumptions for the United States are less severe: no short-term pressures are considered on the deficit but investor confidence is assumed to decline slightly due to concerns about the medium and long-term implications of high debt levels.

Chart 14
Macroeconomic scenarios for Spain (a)



SOURCE: Banco de España.

a For the EBA's EU-wide scenarios, the chart shows the average values for the entire horizon (three years). For the Banco de España's adverse scenario, the chart shows the average up to year 3 (green bars) and up to year 5 (yellow bars).
b The short-term rate paths are for the 3-month EURIBOR.

Banco de España scenario, offsetting the lower risk-free interest rate.

House price dynamics also differ between both scenarios. The EBA considers price dynamics consistent with those during the global financial crisis (GFC). The Banco de España scenario does not include such a sharp adjustment, given that the level of risk identified in the real estate market is lower than in the pre-GFC period (see Section 4.1 of the main text).

Chart 15 shows how the aggregate CET1 ratio for all the banks considered changes between 2024 and 2029 under the Banco de España adverse scenario. The CET1 ratio drops to 12.5% in the first year of the exercise,[17] down from 13.4% in 2024. However, it then follows a rising trajectory over the remainder of the projection horizon, reaching 14.9% in 2029, driven by modest but positive earnings and a lack of significant growth in banks' balance sheets. Over the three-year horizon (aligned with the EBA horizon) the CET1 ratio under the Banco de España's adverse scenario is more than 2 pp lower than under the EBA baseline scenario. However, this gap is smaller than between the two EBA scenarios.

Chart 16 shows the starting points and results for the various groups of banks under the Banco de España scenario. All bank groups have a higher capital level at the end of the horizon than in 2024, although the results differ depending on their starting position and business model. The International group has an initial CET1 ratio of 13.0% in 2024 and reaches a level of 14.4% at the end of the horizon, while the ratio for the Other SSM group starts at 13.1% and climbs to 13.7%. The LSI group has the highest initial CET1 ratio, which further improves to 27.2%.

Conclusions

The results indicate that the banking system would be able to absorb the losses caused by a hypothetical scenario like the one envisaged by the EBA in its EU-wide stress test this year (characterised by a severe recession and a surge in inflationary pressures, associated with an extreme scenario of geopolitical risk materialisation). These shocks would worsen agents' ability to pay, raising impairment provisions and dampening banks' business growth, which would result in limited profitability over the exercise horizon. Under this adverse scenario losses are particularly

17 The aggregate CET1 ratio drops in the first year under the adverse scenario, despite no net loss. This owes to the direct impact of losses in sovereign bonds at fair value underlying this metric, as well as to profit distribution (although the aggregate figure is zero, some banks do make a profit).

Chart 15
CET1 ratio

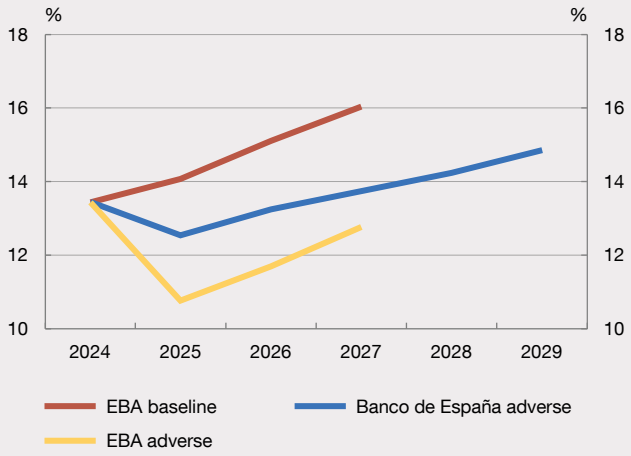
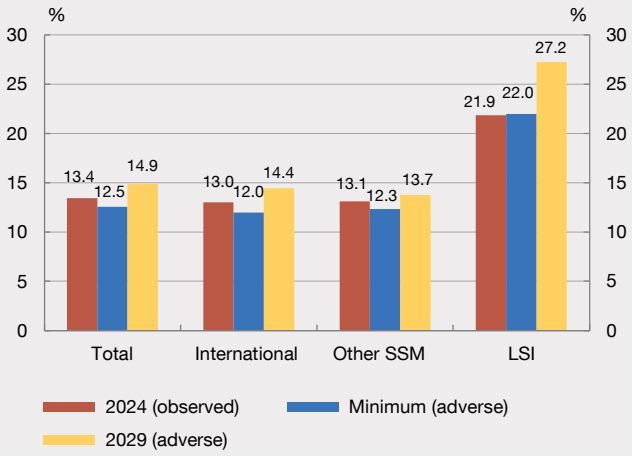


Chart 16
Initial, final (2029) and minimum CET1 ratio under the Banco de España adverse scenario



SOURCE: Banco de España.

marked at the outset, due to the abrupt reversal of expectations. Over the two subsequent years banks manage to regain part of their initial solvency thanks to balance sheet downsizing and weak but positive profitability. However, the final aggregate CET1 ratio is substantially lower than in the baseline scenario and somewhat below its initial level.

The estimated impacts on solvency are smaller if the economic contraction is combined with a deflationary environment in which the monetary policy response leads to a lower short-term interest rate path. In this alternative scenario, lower interest rates reduce defaults and increase the value of real estate collateral, mitigating losses. This positive effect outweighs the negative effect on net interest income. The stronger resilience persists even when considering a five-year horizon – longer than typically used in stress test exercises – during which the recessionary dynamics continue.

Overall, the analyses confirm that the banking sector's starting position is relatively resilient and – under the baseline scenario – can be strengthened in the coming years. However, these results should be viewed with some caution, due to both these exercises' inherent uncertainty and the general uncertainty associated with the current macro-financial environment. The latter warrants particularly close monitoring for any signs of potential new risk scenarios.

Although the scenarios envisage very severe impacts on the various macro-financial variables, comparable to those seen during the GFC, the tests indicate that banks' solvency would not deteriorate to the levels observed during that period.

It is worth noting that the real estate sector no longer makes up an excessive share of banks' balance sheets. For example, in 2008 loans for property development and housing construction accounted for half of the corporate loan portfolio, whereas today the proportion is under 15%. More generally, real estate credit today represents a small fraction of GDP and of total bank credit, and there are no signs of the extreme dynamics that preceded the GFC (see Section 4.1.2). Mortgage lending standards are at significantly more prudent levels than in the years leading up to the crisis (see Section 4.1.2), tempering both the rise in default rates under adverse scenarios and the expected loss given default.

All of the above entail a lower sensitivity of Spanish banks' solvency to the materialisation of different risk scenarios. However, their greater capacity to absorb these impacts is equally important. Capital ratios are currently significantly higher than in the years leading up to the GFC. In 2007 the aggregate Tier 1 capital ratio (which was the highest quality of regulatory capital considered by supervisors before the GFC) for the banks analysed stood below 8%, while today it stands near 15%, almost double that level (in fully loaded terms).