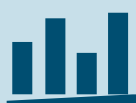


3

MACROPRUDENTIAL POLICY



EVOLUTION OF SYSTEMIC VULNERABILITIES

In the usual monitoring of systemic vulnerabilities through indicators and stress tests, no risk warnings were detected



MACROPRUDENTIAL TOOLS

Two types of capital buffer are regularly set: CCyB and buffers for G-SIIs and O-SIIs. The adequacy of lending conditions and sectoral concentration is also assessed



COUNTERCYCLICAL CAPITAL BUFFER (CCyB)

It was maintained at 0%, as it was considered the appropriate level, given the adverse economic environment, geopolitical uncertainty, high inflation and the ECB's tightening monetary policy



SYSTEMICALLY IMPORTANT INSTITUTIONS

1 Global Systemically Important Entity (G-SII) and 4 Other Systemically Important Entities (O-SIIs) were identified



AMCESFI

2022 was the fourth year of activity of the Spanish macroprudential authority (AMCESFI), in which the Banco de España participates



COORDINATION IN THE SSM

Cooperation with the ECB and the SSM national authorities took place in the areas of: i) analysis of risks to financial stability, and ii) exchange of information on national macroprudential measures

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Acronyms and abbreviations

3.1 Macprudential tools

Macprudential tools are designed to mitigate risks and systemic vulnerabilities, increasing institutions' shock absorption capacity and mitigating the effects of shocks on the provision of funding and on the activity of the real economy. The Banco de España regularly monitors risks and systemic vulnerabilities through stress tests on Spanish banks, and a series of indicators and specific methodologies that also guide the calibration of macroprudential tools¹. On the basis of these analysis methods, in 2022 the Banco de España reviewed the adequacy of the levels of two macroprudential capital buffers, which address the build-up of cyclical and structural risks, respectively: (i) the countercyclical capital buffer (CCyB); and (ii) the buffers for Spanish global systemically important institutions (G-SII) and other systemically important institutions (O-SII). Moreover, it was not necessary to activate any of the other macroprudential tools available in the legislation, due to the absence of signs of build-up of risk that justify it.

Noteworthy in 2022, the transposition of the latest capital requirements directive (CRD-V)², including its macroprudential aspects, was completed. The CRD-V regulatory changes promote sound risk management of credit institutions to ensure their solvency and strengthen banks' resilience to systemic risks. In the macroprudential area, the main changes relate to: (i) the sectoral application of the systemic risk buffer; (ii) methodological adjustments to the setting of capital buffers for systemic institutions; and (iii) the simplification of the regime whereby national authorities notify European bodies of proposed macroprudential measures.

3.1.1 Stress tests

The Banco de España conducts forward-looking exercises to measure the resilience of credit institutions to the hypothetical materialisation of macroeconomic and financial risks. The main objective of the stress tests is to assess the solvency of Spanish credit institutions under various macroeconomic scenarios. These exercises are conducted by means of an analytical tool developed

1 For more details on risk identification indicators, see Banco de España Strategic Plan 2024: Risk identification for the financial and macroeconomic stability. (2021). "How do central banks identify risks? A survey of indicators". Occasional Papers - Banco de España, 2125. <https://www.bde.es/f/webbde/SES/Secciones/Publicaciones/PublicacionesSeriadadas/DocumentosOcasionalas/21/Files/do2125e.pdf>.

2 Directive (EU) 2019/878 (CRD-V) was transposed through Royal Decree 970/2021 of 8 November and Banco de España Circular 3/2022 of 30 March.

in-house, known as FLESB. FLESB has a top-down approach and uses highly granular information available from regulatory and supervisory reporting to the Banco de España, and it projects the evolution of institutions' balance sheets and income statements based on these scenarios over a three-year horizon³.

The 2022 stress tests were focused on examining risks stemming from geopolitical tensions, higher and persistent inflation, and tighter financial conditions. These exercises considered a baseline scenario, which reflected the most likely evolution of the economic environment until 2024; and an adverse scenario, which reflected the materialisation of the main risks identified for the Spanish economy, related to the new macro-financial environment brought about by the Russian invasion of Ukraine and the subsequent increase in energy and raw material prices. In 2022, risks were characterised by higher and more persistent inflation, associated with a tightening of financial conditions and a strong reduction in GDP growth. This is an important qualitative change compared to the scenarios used in 2021, where the focus was on risks associated with health developments, linked to the deterioration of activity and confidence. The modelling took into consideration both the economic support measures adopted during the pandemic that are still in place (e.g. ICO guarantee lines) and the potential latent credit deterioration as a result of the economic effects of the pandemic in the 2020-2021 period. In addition, the heterogeneity of the probability of default based on the borrower's sector of activity was modelled, which is particularly significant given the different impact of the increase in energy and raw material prices in the current risk context on the gross value added of the various sectors.

The results obtained show an adequate aggregate loss-absorbing capacity of Spanish credit institutions both in the baseline scenario and in the adverse scenario. Specifically, as illustrated in Chart 3.1, in an adverse scenario Spanish credit institutions would be able to maintain their CET1 ratio at 10.5% (-2.3 pp with respect to their position at the end of 2021), and in the baseline scenario, the CET1 ratio would increase to 13.4% (+0.6 pp with respect to their level at the end of 2021).

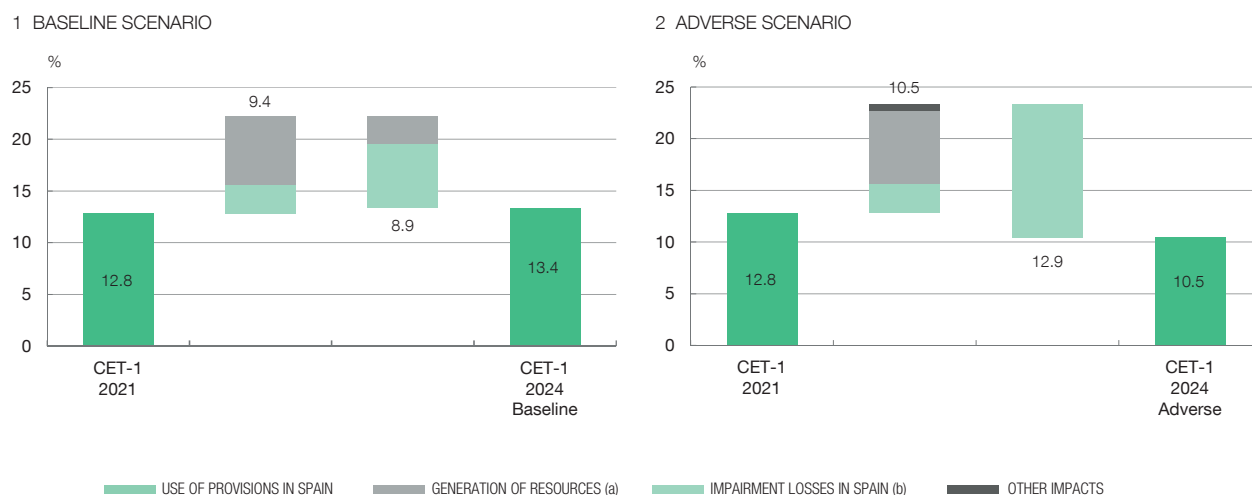
However, the usual caution needs to be exercised in the interpretation of the stress test results. It is worth noting that there are differences in the stress test results of the various institutions due to differing initial solvency positions and differences in the impact of the various scenarios on the institutions. Moreover, the current environment is uncertain, and it is possible that there are further shocks beyond those envisaged in the exercises and unanticipated economic policy responses. Given this uncertainty, it is necessary that the supervisor continues with its close monitoring and that

³ Each autumn issue of the Banco de España's Financial Stability Report shows the results and the main methodological improvements included in each exercise. The basic structures of the framework can be seen in the Financial Stability Report of November 2013 of the Banco de España. <https://www.bde.es/f/webbde/Secciones/Publicaciones/InformesBoletinesRevistas/InformesEstabilidadFinancera/13/IEF-Noviembre2013.pdf>.

Chart 3.1

FLESB STRESS TESTS. IMPACT ON THE CET1 RATIO

Credit institutions show considerable resilience, despite the relatively high volume of impairment losses in the business in Spain in both scenarios. In the baseline scenario, use of provisions and generation of capital offset impairment losses, while in the adverse scenario, additional impairment losses and lower capacity to generate capital reduce the 2023 CET1 ratio with respect to the starting ratio, albeit above the minimum thresholds required.



SOURCE: Banco de España.

NOTE: The net effect of the positive (negative) flows are indicated by the figure above (below) the corresponding bar. The initial and final CET1 ratios are presented as "fully-loaded". The other impacts include the change in RWAs between 2021 and 2024 and the effect of the ICO guarantees. Aggregate results include institutions supervised directly by both the SSM and the Banco de España.

- a This variable includes net operating income in Spain and net income attributable to business abroad. Thus, the possible capital generated by the banking group as a whole is compared with the impairment losses in Spain, which are the focus of these exercises.
- b This variable shows the projection over the three years of the exercise of gross losses due to credit portfolio impairment for exposures in Spain and other types of loss (associated with the fixed-income portfolio, the management of foreclosures and the sovereign portfolio).

institutions exercise extreme prudence in their provisioning and capital policies, so that they have sufficient capital, even in the event of adverse scenarios materialising.

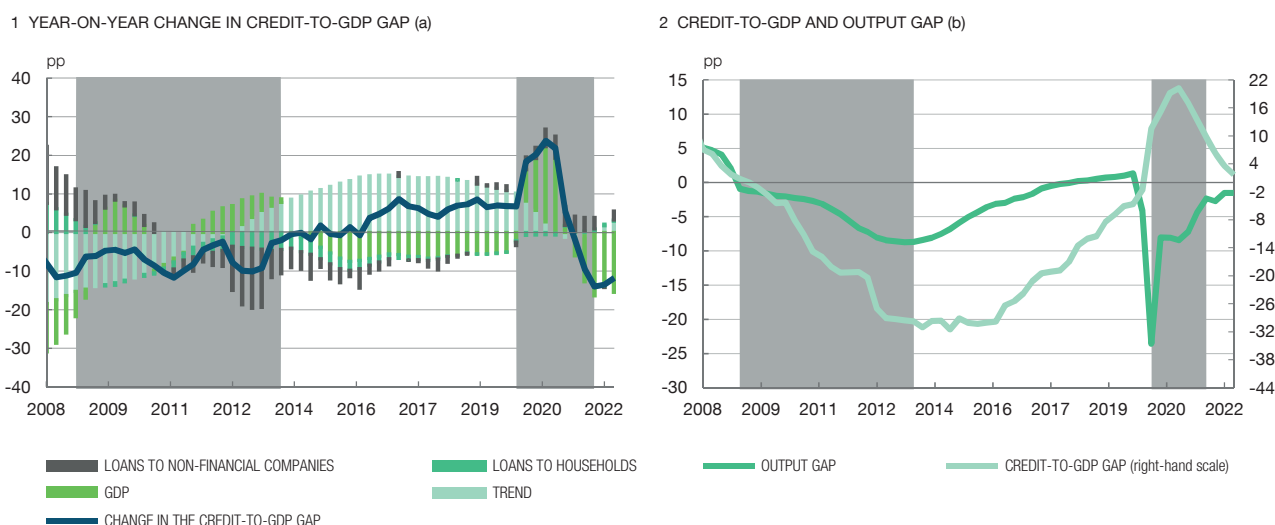
3.1.2 Countercyclical capital buffer

The Banco de España decided to maintain the CCyB at 0% for credit exposures in Spain in 2022. The CCyB is a capital requirement designed to ensure that banks build up an additional capital reserve in financial upturns, when conditions are favourable. This buffer would be released in a subsequent downturn so as to absorb potential credit losses and help mitigate the contraction in credit flows to the real economy inherent to such adverse situations. The economic recovery following the shock generated by the COVID-19 crisis has been shaped by the war in Ukraine, high inflationary pressures and the tightening of the ECB's monetary policy. In view of this adverse environment, where the likelihood of low growth and even recession scenarios is high, maintaining the CCyB at 0% was considered the appropriate

Chart 3.2

CREDIT-TO-GDP GAP AND OUTPUT GAP

In 2022 the widening of the credit-to-GDP gap following the start of the pandemic continued to be corrected, and the gap was below the 2 pp threshold from the third quarter. The current environment of economic uncertainty generated by the war in Ukraine and the inflationary pressures could affect the rate at which this indicator is corrected. Therefore, it is worth considering indicators on developments in the macroeconomic environment, such as the output gap, to guide CCyB decision-making.



SOURCES: Banco de España and Datastream.

NOTE: The shaded areas denote the latest systemic banking crisis (2009 Q1 - 2013 Q4) and the crisis triggered by Covid-19 (2020 Q1 - 2021 Q4).

a The solid line represents the year-on-year change, in percentage points, of the credit-to-GDP gap. The latest observation is for September 2022.

b The credit-to-GDP gap is the difference between the credit-to-GDP ratio and the trend calculated using a one-sided Hodrick-Prescott filter. The gap is adjusted to adapt its calculation to a shorter cycle duration that is more consistent with the empirical evidence in Spain. To this end, a smoothing parameter of 25,000 is considered. The output gap is the percentage difference between observed GDP and potential GDP. Values calculated at constant 2010 prices. See P. Cuadrado and E. Moral-Benito. (2016). "Potential growth of the Spanish economy". Occasional Papers No 1603, Banco de España <https://www.bde.es/f/webbde/SES/Secciones/Publicaciones/PublicacionesSeridas/DocumentosOcasiones/16/Fich/do1603.pdf>. The latest observation is for September 2022.

response⁴. Moreover, this macroprudential policy decision is in line with the warning issued in 2022 by the ESRB on the vulnerabilities of the EU financial system (ESRB/2022/7)⁵.

The narrowing of the credit-to-GDP gap in 2022 is consistent with maintaining the CCyB at 0%. The credit-to-GDP gap, the main benchmark indicator used in the quarterly reviews of the CCyB, measures the deviation of the aggregate indebtedness of the economy (credit-to-GDP ratio) from a long-term equilibrium trend⁶, such that an increase in this indicator above 2 pp may be a warning sign

4 See the current CCyB for exposures in Spain, together with the macro-financial indicators relevant to the decision, as well as the justification for the measure in the [XLS document available on the Banco de España website](#).

5 The ESRB indicates in its [Warning 7/2022 of 22 September](#) that risks to financial stability in the EU have increased markedly due to the deterioration of the macroeconomic outlook, the heightened risk of a sharp asset price correction and the financial stability implications of these developments.

6 This trend is calculated using statistical procedures (using a one-sided Hodrick-Prescott filter).

for potential excessive credit growth. In this regard, the jump above 2% in this indicator during the pandemic was not so much the result of an excessive increase in credit as of a fall in GDP, the denominator of this ratio. Therefore, the recovery in economic activity since mid-2021, combined with the moderation in credit performance, has supported its decline during 2022, and it has been below the 2 pp threshold since the third quarter (see Chart 3.2.1). Other complementary indicators are also analysed, such as the output gap, which measures the difference between actual and potential growth of the Spanish economy. This indicator shows that the recovery that started in 2021 slowed in 2022 and, therefore, at the end of 2022 all the deterioration accumulated during the pandemic had still not been corrected in full (see Chart 3.2.2).

3.1.3 Systemically important institutions

The Banco de España identifies the Spanish systemically important institutions each year and sets their macroprudential capital buffers. An institution is deemed systemic —globally or domestically— if, in the event of potential solvency problems, it can have a very adverse impact on the financial system and the real economy. Accordingly, an additional capital requirement is imposed on institutions to reinforce their resilience, incentivise prudent risk-taking and to correct their potential competitive advantage in the funding market stemming from their systemic nature. Systemic importance is assessed by a set of variables that measure institutions' size, degree of interconnectedness, substitutability of services provided, complexity and cross-border activity.

At 31 December 2022, one G-SII, which is also an O-SII, and three other O-SIIs had been identified. In July 2022 the Banco de España announced the designation of four O-SIIs with their associated capital buffers in 2023⁷, while in December 2022 it announced the identification of one G-SII with its 2024⁸ requirement (see Table 3.1)⁸. The buffers required in 2023 for O-SIIs have remained stable with respect to those set the previous year, with the exception of CaixaBank, SA. The buffer for this institution rose from 0.375% to 0.5% due to the increase in its systemic importance as a result of its merger by absorption with Bankia, SA in March 2021. This change in the calibration of the buffer, effective from 1 January 2023, was anticipated in a Banco de España press release in 2021⁹.

7 See the press release of 22 July 2022 “Banco de España updates the list of other systemically important institutions and sets their macroprudential capital buffer rates for 2023». https://www.bde.es/f/webbde/GAP/Secciones/SalaPrensa/NotasInformativas/22/presbe2022_64.pdf.

8 See the press release of 19 December 2022 “Banco de España identifies a Global Systemically Important Institution sets its macroprudential capital buffer rate for 2024». https://www.bde.es/f/webbde/GAP/Secciones/SalaPrensa/NotasInformativas/22/presbe2022_108.pdf.

9 See the [press release published by the Banco de España](#) on 29 July 2021.

Table 3.1

SYSTEMICALLY IMPORTANT INSTITUTIONS AND ASSOCIATED CAPITAL BUFFERS

LEI code (a)	Institution	Designation (b)	Capital buffer requirement 2022 (%)	Capital buffer requirement 2023 (%)
5493006QMFDDMYWIAM13	Banco Santander, SA	G-SII and O-SII	1.00	1.00
K8MS7FD7N5Z2WQ51AZ71	Banco Bilbao Vizcaya Argentaria, SA	O-SII	0.75	0.75
7CUNS533WID6K7DGF187	CaixaBank, SA	O-SII	0.375	0.50
SI5RG2M0WQQLZCXKRM20	Banco de Sabadell, SA	O-SII	0.25	0.25

SOURCE: Banco de España.

a The LEI code is the Legal Entity Identifier.

b G-SII refers to global systemically important institutions; O-SII refers to other systemically important institutions.

3.1.4 Other macroprudential tools

No other macroprudential tools have been activated, due to the absence of signs of imbalance that justify it. In particular, the activation of any sectoral macroprudential tool was not considered, as no signs of sectoral imbalance requiring it were observed. Nor did the Banco de España introduce limits on lending criteria, as there were no signs of a relaxation of lending standards for companies and households. Lastly, the systemic risk buffer, which aims to prevent or mitigate structural or cyclical risks not covered by the CCyB or by buffers for systemic institutions, was not activated either.

3.2 Macroprudential coordination with other authorities in Spain and in the SSM

The Banco de España is a member of AMCESFI¹⁰. AMCESFI was created in 2019 and it is tasked with risk oversight for the Spanish financial system. It has the power to issue opinions, warnings and recommendations on issues of importance to financial stability. The Governor of the Banco de España is Vice-Chair of the AMCESFI Board, and the Deputy Governor, as well as sitting on the Board, chairs its Financial Stability Technical Committee (FSTC). Further, the Banco de España's Director General Banking Supervision (member) and Director General Financial Stability, Regulation and Resolution (member and secretary) are ex officio members of the FSTC.

In 2022, AMCESFI published its 2021 Annual Report. On 7 September 2022, the First Deputy Prime Minister of the Government and Minister for Economic Affairs

¹⁰ The AMCESFI was created by Royal Decree 102/2019 of 1 March, and is configured as a collegiate body attached to the Ministry of Economic Affairs and Digital Transformation, of which the CNMV and the DGSFP also form part.

and Digital Transformation presented this report to the corresponding committee of the Spanish Parliament. The report reviews the evolution of the Spanish financial system in 2021, a year marked by the gradual recovery of activity after the disruption caused by the COVID-19 pandemic. At the technical level, in 2022 AMCESFI's work was geared towards further developing the analysis of direct and indirect interconnections between sectors of the financial system, studying the regulatory approach to cryptoassets –and possible areas of cross-institutional action in this field for the three sectoral supervisory authorities– and making progress in the preparatory work for the first biennial report on climate change risks for the Spanish financial system¹¹, which is scheduled for publication in 2023.

Within the SSM, the Banco de España collaborates with other national authorities on macroprudential analysis and policy through the ECB's Financial Stability Committee (FSC). The Banco de España participated in 2022 in the discussions on financial stability risks and vulnerabilities (summarised in the institution's half-yearly financial stability reports), the ECB's advice to the European Commission on the review of the macroprudential framework in EU banking regulation¹², and other methodological lines of work on systemic risk measurement and stress testing. The work of the FSC is regularly presented to the Macroprudential Forum, which brings together members of the ECB's Supervisory Board and Governing Council. As an SSM authority, in 2022 the Banco de España notified the FSC of its proposals for quarterly CCyB measures and annual G-SII and O-SII measures, in the context of the mandatory review process by the ECB's decision-making bodies.

In relation to the work of the FSC, the ECB's Governing Council issued three macroprudential policy statements in 2022. In June 2022, the ECB published a statement¹³ on the additional method for assessing the systemic importance of G-SIIs headquartered in the banking union. Further to a prior agreement by the Basel Committee on Banking Supervision (BCBS), the new method¹⁴ provides for an adjustment to the treatment of the cross-border exposures of these institutions, bringing them into line with domestic exposures by a factor of 66% in recognition of the development of two of the three pillars of the banking union, the SSM and the Single Resolution Mechanism (SRM). In November 2022, the ECB published another

11 Report whose coordination is assigned to AMCESFI in Law 7/2021 of 20 May on climate change and energy transition.

12 See «ECB response to the European Commission's call for advice on the review of the EU macroprudential framework» of 19 March 2022. <https://www.ecb.europa.eu/pub/pdf/other/ecb.responsetothecallforadvice~547f97d27c.en.pdf>.

13 See «Governing Council statement on the treatment of the European banking union in the assessment methodology for global systemically important banks», of the ECB, of 27 June 2022. <https://www.bde.es/f/webbde/GAP/Secciones/SalaPrensa/ComunicadosBCE/NotasInformativasBCE/22/2022-06-27-statement.pdf>.

14 Called Adjustment for Structural Regional Arrangements (ASTRA).

statement¹⁵ aimed at supporting the above-mentioned ESRB warning on the vulnerabilities of the EU financial system. The statement warns that the war in Ukraine has complicated the macro-financial situation, aggravating pre-existing vulnerabilities and increasing the likelihood of short-term risks materialising, while cautioning that the macro-prudential policy response should take into account the specific conditions of each country and avoid an increase in capital buffers resulting in an excessive tightening of credit conditions. Lastly, the ECB's December 2022¹⁶ statement contains a review of the minimum capital buffer framework for O-SIIs identified by national designated authorities in the banking union. The new framework, which the ECB will use to assess buffers with effect from 2024, will entail a moderate increase in the calibration of this macroprudential buffer, in order to reduce the disparity of national practices allowed under EU legislation.

15 See «Governing Council statement on macroprudential policies», by the ECB, of 2 November 2022. https://www.bde.es/f/webbde/GAP/Secciones/SalaPrensa/ComunicadosBCE/NotasInformativasBCE/22/presbce2022_144.pdf.

16 See «Governing Council statement on macroprudential policies», by the ECB, of 2 November 2022. https://www.bde.es/f/webbde/GAP/Secciones/SalaPrensa/ComunicadosBCE/NotasInformativasBCE/22presbce2022_167.pdf.