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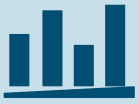
MACROPRUDENTIAL POLICY



PERFORMANCE OF SYSTEMIC RISKS

In the customary monitoring of systemic risks through stress tests and indicators, no risk warnings were detected.

MACROPRUDENTIAL TOOLS

Two types of capital buffers are set regularly: CCyB and G-SII/O-SII buffers. Circular 5/2021 foresees three new instruments: i) sectoral component of the CCyB;
ii) limits to sectoral concentration; and iii) limits and conditions on the granting of loans.

COUNTERCYCLICAL CAPITAL BUFFER (CCyB)

The CCyB rate was kept at 0% due to the absence of new imbalances in the credit cycle, which, however, continues to be influenced by the economic and financial effects of the pandemic.

SYSTEMICALLY IMPORTANT INSTITUTIONS

One global systemically important institution (G-SII) and four other systemically important institutions (OSIIs) were identified.

AMCESFI

2021 was the third year of activity of AMCESFI, the Spanish macroprudential authority for the financial system as a whole, in which the Banco de España participates.

COORDINATION IN THE SSM

The Banco de España collaborated with the ECB and the SSM national authorities in the following matters: i) analysis of risks to financial stability; and ii) exchange of information on national

3.1 Macroprudential tools

Macroprudential policy brings together a set of prudential tools designed to mitigate identified systemic risks and vulnerabilities and thus increase institutions' shock-absorbing capacity. The Banco de España regularly monitors systemic risk through a series of indicators and methodologies, such as, for example, stress tests on Spanish banks[1]. On the basis of this analysis, the Banco de España regularly sets two macroprudential capital buffers to address the build-up of cyclical and structural risks, respectively: (i) the CCyB; and (ii) the buffers for Spanish global systemically important institutions (G-SII) and other systemically important institutions (O-SII).

Notably, at the end of 2021, the Banco de España completed the implementation of a circular on new macroprudential tools on credit institutions (see Box 3.1)[2]. Also, the European macroprudential framework set out in the capital requirements regulations (CRR and CRD) will be reviewed in the coming months. In order to perform this review of the macroprudential framework, the European Commission has requested advisory reports from the ECB, the EBA and the ESRB.

3.1.1 Stress tests

Since 2014, the Banco de España has been conducting forward-looking exercises to measure the resilience of credit institutions to the hypothetical materialisation of macroeconomic and financial risks. The main objective of these stress tests is to assess Spanish credit institutions' robustness, in terms of solvency, under various macroeconomic scenarios that include assumptions about the evolution of the economy. These exercises are conducted using an analytical tool developed in-house, the so-called FLESB. The FLESB tool employs a top-down[3] approach, using highly granular information available from regulatory and supervisory

1 For more details on risk identification indicators, see Banco de España (2021), How do central banks identify risks? A survey of indicators. Banco de España Strategic Plan 2024: Risk Identification for the financial and macroeconomic stability, Occasional Papers, No. 2125.

2 For more information, see the revamped "Financial Stability and Macroprudential Policy" section of the Banco de España website.

3 Each autumn Financial Stability Report shows the results and the main methodological improvements included in the various exercises. Also, the basic structure of the framework can be seen in Banco de España (2013), Financial Stability Report, November.

Box 3.1

BANCO DE ESPAÑA CIRCULAR ON NEW MACROPRUDENTIAL TOOLS

The fundamental objective of macroprudential policy is to protect the economy from systemic risk. Given the multidimensional nature of systemic risk and its dynamic nature over time, a broad and varied set of macroprudential tools are needed to tackle it.

Thus, Circular 5/2021, of 22 December, amending Circular 2/2016, implements the three new macroprudential tools introduced into Spanish legislation on credit institutions by Royal Decree-Law 22/2018 and Royal Decree 102/2019: (i) a sectoral component of the countercyclical capital buffer (SCCyB); (ii) sectoral concentration limits; and (iii) limits and conditions on lending and other operations (known as borrower-based instruments (BBI)).

Firstly, the rationale behind the SCCyB is that at certain times most of the systemic risks have been concentrated in exposures to specific sectors. In such cases, aggregate macroprudential tools would be less effective, since they are applied equally to all sectors, and they could even have counterproductive effects, such as a credit shift towards sectors with higher systemic risk, because these tools are not able to alter the relative costs of exposures to sectors with various levels of imbalance. Incorporating an SCCyB is a technical improvement to this buffer, since it enables its application both to exposures taken as a whole and to specific sectors, and even to both at the same time. Its activation for specific sectors will be determined on the basis of a broad range of early warning indicators of sectoral imbalances in Spain, which are correlated with increases in systemic risk in the financial system.

Secondly, limits on sectoral concentration complement the SCCyB, as their activation curbs growth of concentration in specific sectors more directly than this buffer, as they limit the volume of exposures with respect to total available capital. Instead, the SCCyB would act through disincentives, by making the growth of credit exposure more expensive in terms of capital. Given that concentration is defined in terms of the ratio of sectoral exposure to institutions' Common Equity Tier 1 (CET1) capital, activating a limit would not imply an absolute ceiling on exposures.

Lastly, while the two above-mentioned tools affect both existing and new operations, the setting of limits and conditions on lending and other operations would affect only the flow of new credit, and their expected effect would be a reduction in the implicit risk of each new operation. There is evidence that the application of such limits when there is a general easing of lending standards by banks can help to significantly limit the materialisation of credit losses in subsequent downturns. Thus, the Circular establishes various limits and conditions that can be activated, such as limits on the maximum indebtedness of a borrower depending on several variables (collateral and income, among others), limits on the maturity of operations or minimum principal repayment requirements. These measures may be activated individually or jointly, and they may also be used with other macroprudential instruments.

reporting, and projects the evolution of institutions' balance sheets and income statements based on these scenarios over a three-year horizon.

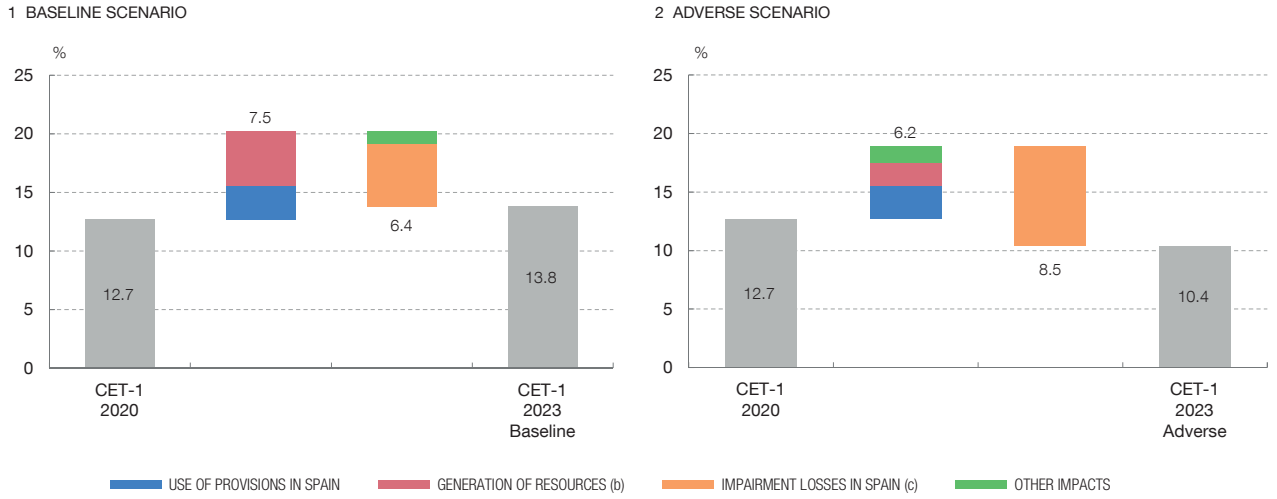
The 2021 stress tests build on the three-year scenarios of the EBA's 2021 stress test[4]. Therefore, they consider a baseline scenario, which reflects the most likely evolution of the economic environment over the year, and an adverse scenario, which envisages the materialisation of the main risks to the EU's financial system identified by the ESRB in relation to the uncertainty as to the evolution of the COVID-19 pandemic. In this exercise, uncertainty about the consequences of the pandemic

4 The scenarios can be found in the EBA press release of 29 January 2021.

Chart 3.1

FLESB STRESS TESTS. IMPACT ON THE CET1 RATIO (a)

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 resources reduce the 2023 CET1 ratio with respect to the starting ratio, albeit above the minimum thresholds required.



SOURCE: Banco de España.

a 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 rest of the impacts include the change in RWAs between 2020 and 2023 and the effect of the ICO guarantees. Aggregate results include both institutions supervised directly by the SSM and by the Banco de España.

b 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 are compared with the impairment losses in Spain (the focus of these exercises).

c 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).

remains high, so the FLESB tool has been adapted in two ways. Firstly, it considers the possibility of a latent deterioration in credit quality materialising over the forecast horizon, which did not materialise in 2020 thanks to the positive effect of support measures. Secondly, the effect of these measures is incorporated into the modelling, notably the extension of the ICO guarantee programme. In addition, the granularity of the modelling of the probability of default on loans to business activities is increased to reflect the disparity in the impact of the crisis depending on the borrower's sector of activity.

The aggregate results obtained, presented in Chart 3.1, show the high loss-absorbing capacity of Spanish[5] credit institutions both in the baseline scenario and in the adverse scenario. Specifically, in the adverse scenario Spanish credit institutions would be able to maintain their CET1 ratio at 10.4%; in the baseline

5 The sample of institutions included in this aggregate result covers all SIs and a large portion of LSIs. For further references and for the results by type of institution, see Banco de España (2021), "Risks to the financial sector and its resilience", Chapter 2, Financial Stability Report, Autumn 2021.

scenario, the CET1 ratio would increase to 13.8%. However, it should be noted that there are significant differences among institutions as regards their initial solvency position, their response to various scenarios and the challenges they face in the current economic climate. Therefore, it is necessary that the supervisor continues monitoring in order to check that institutions have sufficient own funds even in the event of the materialisation of adverse scenarios and to assess their resilience in periods of stress.

Additionally, in 2021 the FLESB framework was used to assess the short-term effect, over a three-year horizon, of the costs arising from an energy transition[6] scenario. Although increases can be observed in the probability of default that are asymmetric by sector and concentrated in sectors with higher emission intensity, these increases are limited, and none of the scenarios presented result in significant capital consumption for institutions. The exercise suggests that the potential impact through economic activity channels for the banking sector of the start of the energy transition would be contained. It is necessary to bear in mind that climate risks are subject to significant uncertainties and, therefore, analytical efforts on these risks must continue.

3.1.2 Countercyclical capital buffer

The Banco de España decided to maintain the CCyB rate at 0% for credit exposures in Spain in 2021 with the expectation to not increase it over a prolonged period, until the main economic and financial effects arising from the pandemic have been overcome[7]. The CCyB is a capital requirement designed to ensure that banks build up an additional capital reserve in financial upturns, when conditions are favourable, which would be released in a subsequent downturn so as to absorb 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 is proving to be slower and more uneven than initially expected. To avoid undesired procyclical effects, the Banco de España has reiterated its intention not to increase the rate of this instrument, so as to contribute to sustaining the flow of credit and mitigate negative pressures on economic growth.

The recovery in economic activity helped to correct part of the imbalances generated during the pandemic on the set of indicators usually analysed for setting the CCyB, such as the credit-to-GDP gap. The credit-to-GDP gap measures the deviation of the aggregate indebtedness of the economy (credit-to-

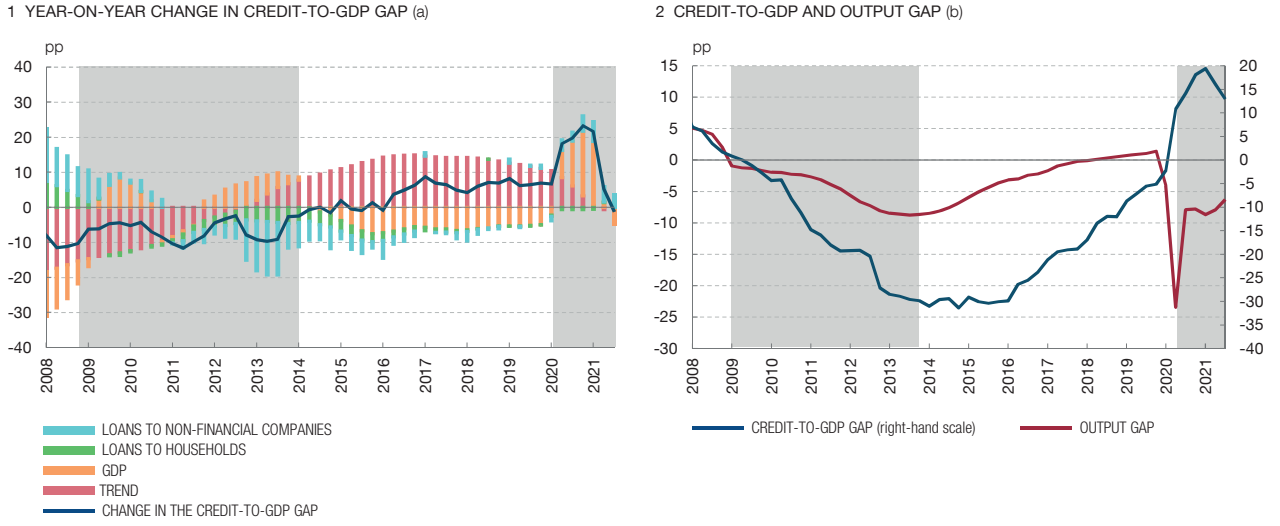
6 For more information, see Banco de España (2021), "Impact of climate change risks on the banking sector", Box 3.1, Financial Stability Report, Autumn 2021.

7 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 Excel document available on the Banco de España website.

Chart 3.2

CREDIT-TO-GDP GAP AND OUTPUT GAP

The widening of the credit-to-GDP gap was partially corrected in 2021 due to the recovery in GDP, although this indicator is still above the 2 pp threshold. Given the lower informative value of the credit-to-GDP gap in the current climate, it is worth considering indicators on developments in the macroeconomic environment, such as the output gap, for guiding CCyB decision-making.



SOURCE: Datastream and Banco de España.
NOTE: The shaded areas denote a period of systemic banking crisis (the last crisis: 2009 Q1 - 2013 Q4) and the systemic crisis triggered by Covid-19 (2020 Q1 - 2021 Q2).

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 2021.
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. The latest observation is for September 2021.

GDP ratio) from a long-term equilibrium trend[8]. This is the main benchmark indicator used in the quarterly reviews of the CCyB under normal conditions, since an increase in this indicator above the 2 pp threshold is a warning sign for potential excessive credit growth. However, during the pandemic this indicator lost some of its informative value because it spiked due to the sharp exogenous fall in GDP.

Therefore, the positive level of this indicator would not be related to the build-up of cyclical risks likely to require the activation of the CCyB. In fact, the economic recovery that started in 2021 has led to a partial downward correction of the credit-to-GDP gap (see panel 1 of Chart 3.2). In these circumstances, it is worth considering other supplementary indicators that provide information on the cyclical position of the economy. For example, the output gap measures the difference between actual and potential growth of the Spanish economy. This indicator shows that the recovery

8 This trend is calculated using statistical procedures, using a one-sided Hodrick-Prescott statistical filter.

that started in 2021 still has a long way to go to fully correct all the deterioration accumulated during the pandemic (see panel 2 of Chart 3.2).

3.1.3 Systemically important institutions

Since 2015, the Banco de España has identified the Spanish systemically important institutions each year and has set 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 systemic institutions to reinforce their resilience and incentivise prudent risk-taking and also 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 2021, one G-SII and four O-SIIs had been identified. In July 2021 the Bank of Spain announced the designation of four O-SIIs with their associated capital buffers in 2022[9], while in December 2021 it announced the identification of one G-SII with its 2023 requirement (see Table 3.1)[10]. A noteworthy development with respect to the previous year was that BFA Tenedora de Acciones, SAU ceased to be an O-SII at the end of March 2021, given the integration of Bankia, SA into CaixaBank,

Table 3.1
SYSTEMICALLY IMPORTANT INSTITUTIONS AND ASSOCIATED CAPITAL BUFFERS

LEI code (a)	Institution	Designation	Capital buffer requirement 2021	Capital buffer requirement 2022
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%
7CUNS533WID6K7DGFI87	CaixaBank, SA	O-SII	0.25%	0.38%
SI5RG2M0WQQLZCXKRM20	Banco de Sabadell, SA	O-SII	0.25%	0.25%
549300GT0XFTFHGOIS94	BFA Tenedora de Acciones, SAU (Bankia, SA)	O-SII	0.25% (b)	—

SOURCE: Banco de España.

a The LEI code is the Legal Entity Identifier.
b The requirement for BFA Tenedora de Acciones, SAU was effective until 26 March 2021, the date on which Bankia, SA was consolidated in CaixaBank, SA.

9 See the press release of 29 July 2021 "Banco de España updates the list of other systemically important institutions and sets their macroprudential capital buffer rates for 2022".

10 See press release "Banco de España designates a Global Systemically Important Institution and establishes its macroprudential capital buffer rate for 2023" of 20 December 2021.

SA. The resulting rise in CaixaBank's systemic importance led to an increase in its associated capital buffer (to 0.375% in 2022 and 0.5% in 2023).

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

The Banco de España actively contributes to AMCESFI's regular activities[11]. AMCESFI performs risk oversight functions for the Spanish financial system, and 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 and Director General Financial Stability, Regulation and Resolution are ex officio members of the FSTC.

In 2021, AMCESFI published its second Annual Report, an analytical occasional paper and an advisory opinion on a draft macroprudential measure. On 6 October 2021, the First Deputy Prime Minister of the Government and Minister for Economic Affairs and Digital Transformation presented the AMCESFI 2020 Annual Report[12] to the corresponding committee of the Spanish Parliament. It reviews the evolution by sector of the Spanish financial system in 2020, a year marked by the onset of the COVID-19 pandemic. At the technical level, AMCESFI's efforts were geared towards developing its capacity to analyse direct and indirect interconnections between sectors of the financial system, and monitoring public fiscal support measures adopted in response to the pandemic[13]. On the occasion of the 2022 O-SII designation measure, AMCESFI agreed in July to issue a favourable opinion[14] on the proposal communicated to it by the Banco de España.

In the framework of the SSM, the Banco de España collaborates with other national authorities and with the ECB on various macroprudential policy and analysis issues. Through the ECB's Financial Stability Committee (FSC) and its technical working groups, the Banco de España participated in 2021 in discussions on financial stability risks and vulnerabilities, as well as in the implementation of new methodologies on stress tests and measurement of systemic risks related to climate change, among other issues. The work of the FSC is regularly presented to the Macroprudential Forum, which brings together members of the SB and the Governing

11 The AMCESFI was created in 2019, 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.

12 AMCESFI (2021), Annual Report 2020.

13 This issue was the subject of the AMCESFI document "Analysis of the public support measures adopted in Spain to tackle COVID-19", July 2021.

14 See "AMCESFI Opinion on the macroprudential measure by the Banco de España on other systemically important institutions (O-SIIs) for 2022" of 22 July 2021.

Council of the ECB. As an SSM authority, the Banco de España reported in 2021 on its proposals for quarterly CCyB measures and annual G-SII and O-SII measures. These notifications of national measures are subject to a review process by the ECB's decision-making bodies.