3

SYSTEMIC RISK AND PRUDENTIAL POLICY

In 2021 H2, thanks in large part to the upturn in economic activity, the systemic risk indicators, which inform decisions on the countercyclical capital buffer (CCyB), continued to correct from their high levels in 2020. Nonetheless, such indicators still diverge significantly from their pre-COVID-19 levels, making it crucial to monitor developments in the coming quarters in order to assess any potential warning signs. With this in mind, in view of the new macroprudential tools set in place under the recent Circular 5/2021, the Banco de España has developed a framework for monitoring sectoral imbalances in order to strengthen its periodic risk assessments. Meanwhile, the contemporaneous indicators of systemic financial stress remain at low levels, despite the spikes seen in recent months, linked to the emergence of the COVID-19 Omicron variant and the Russian invasion of Ukraine. This last event has considerably heightened uncertainty over macro-financial developments, increasing the likelihood of more negative economic growth scenarios and financial conditions, while confirming the advisability of holding the CCyB rate at 0%. On the regulatory front, work has continued in recent months on various international and European initiatives, a case in point being the work on reviewing the EU's macroprudential framework for the banking sector.

3.1 Analysis of risk indicators and systemic vulnerabilities

Rising uncertainty on financial markets since mid-2021 has brought with it episodes of heightened systemic stress, in particular after the Russian invasion of Ukraine. The Banco de España's systemic risk indicator (SRI)[1] had settled at a low level since 2020 H2 (see Chart 3.1.1). However, starting in August 2021, the SRI again began to rise somewhat, lasting through to end-2021, reflecting an all-round increase in stress in the four financial segments captured by the indicator, above all in the equities segment. While the SRI continued to reflect considerable stock market volatility as 2022 began, lower inter-market correlation had set it on a downward path, which was then cut short by growing geopolitical tensions. Other factors causing the indicator to rise include the sudden emergence of the Omicron variant and inflationary pressures, driven in particular by surging energy prices and persistent global supply problems. Such developments are not unique to Spain and had already brought forward market expectations of a change in monetary policy stance on the part of the ECB by the start of 2022. The war between Russia and Ukraine has introduced further uncertainty, making markets increasingly

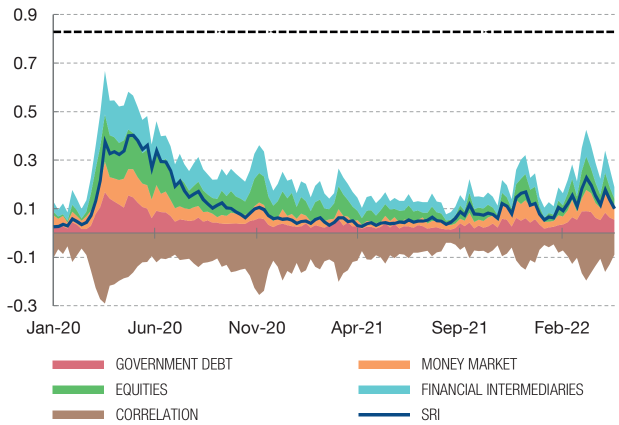
1 This indicator comprises information on the four most representative segments of Spain's financial markets (the money, government debt, equity and bank funding markets), and is designed to increase in value when tensions arise simultaneously in these four segments. For a detailed explanation of the SRI calculation methodology, see Box 1.1 of the May 2013 FSR.

Chart 3.1

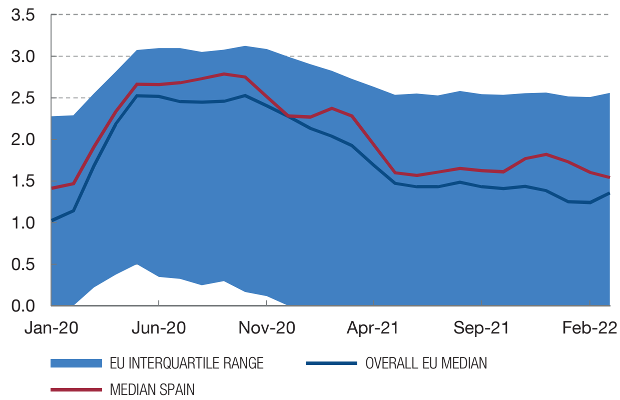
THE SRI REMAINS AT LOW LEVELS, DESPITE THE SPIKES RECORDED SINCE AUTUMN 2021, WHILE THE SYSTEMIC RISK INDICATORS REMAIN STABLE AND CLOSE TO PRE-PANDEMIC LEVELS

Starting in August 2021, the SRI began to rise somewhat due to the all-round increase in stress in the four financial market segments captured by the indicator, above all in the equities segment. The rise in the SRI coincides with the emergence of new COVID-19 variants, heightened geopolitical tensions and persistent inflationary pressures. Nonetheless, in early 2022, the SRI remains at levels well below those reached in 2020 following the outbreak of the pandemic, albeit rising in the wake of the Russian invasion of Ukraine. Meanwhile, the systemic risk contribution of banks measured by the SRISK indicator is close to pre-pandemic levels, both for the European Union as a whole and for Spain. The armed conflict in Ukraine has not yet had an appreciably significant impact on this indicator.

1 SYSTEMIC RISK INDICATOR (a)



2 DISTRIBUTION OF THE SRISK SYSTEMIC RISK INDICATOR (b)



SOURCES: Datastream, SNL Financial, INE and Banco de España.

a The systemic risk indicator (SRI) aggregates 12 individual stress indicators (volatilities, interest rate spreads, maximum historical losses, etc.) from four segments of the Spanish financial system. In calculating the SRI, the effect of cross-correlations is taken into account, whereby the SRI registers higher values if the correlation between the four markets is high, and lower values where there is less or negative correlation. For a detailed explanation of this indicator, see Box 1.1 of the May 2013 *Financial Stability Report.* The dotted line represents the SRI's historical maximum. Data updated as at 20 April 2022.

b The SRISK indicator is expressed as a percentage of each institution's total assets. The parameters used are 4.5% for capital requirements, 10% for the decline in the European equities index and 22 business days for the period over which the hypothetical market decline occurs; see C. Brownlees and R. Engle (2017), "SRISK: A conditional capital shortfall measure of systemic risk", *The Review of Financial Studies,* Vol. 30. for further details. The SRISK indicator for the months of 2022 Q1 is calculated from the values of assets and liabilities of 2021 Q4 with the stock price data of the corresponding month. The series have been smoothed using a three-month moving average. The interquartile range is defined as the difference between the first and third quartiles of the SRISK distribution for EU banks. Data updated as at 31 March 2022.

volatile and altering the balance of risks, with potential implications for monetary policy decisions. All of these factors have meant that the SRI is currently fluctuating around values that point to a greater level of systemic stress than in 2021 H1, albeit still well below that observed following the outbreak of the pandemic in March 2020. Indeed, the increase in the SRI after the invasion has largely corrected in recent weeks.

Changes in the SRISK indicator since mid-2020 have pointed to the growing resilience of Europe's banks to adverse systemic shocks, although the outbreak of war in Ukraine led to a slight rise in this indicator for the European Union as a whole, which has not fed through to Spanish banks. The SRISK indicator[2] for

2 See Brownlees and Engle (2017). This indicator measures the market value of the regulatory capital shortfall of an individual bank or the banking sector overall following a significant correction in the equity market. It thus constitutes a systemic risk metric, since the high cost of making up a capital shortfall for the banking sector could distort financial intermediation.

the euro area banking sector had fallen gradually since 2020, approaching pre-pandemic levels before the Russian invasion of Ukraine (see Chart 3.1.2). This would suggest euro area banks were contributing less to systemic risk. The median SRISK indicator for Spain's eight listed banks performed in parallel with, albeit above, that for European banks overall and the upturn seen in spring 2020 was all but corrected. However, improvements in this indicator have slowed down since July 2021. In March 2022, following the Russian invasion of Ukraine, a slight change in trend in the indicator was observed for European banks, which did not affect Spanish ones, reflecting their different levels of direct exposure to the regions at war. As a result, the distance separating Spanish banks from their European peers in this connection has shortened considerably.

While the credit-to-GDP gap has continued to correct following the rise recorded at the onset of the pandemic, it remains very wide. As mentioned in previous FSRs, in the context of the crisis prompted by the COVID-19 pandemic, this widening of the credit-to-GDP gap should not be interpreted as an early warning of the emergence of a new cyclical imbalance indicating that the CCyB should be activated. Rather, it is the consequence of the sharp drop in GDP (the denominator in the credit-to-GDP ratio) in 2020 and of the measures to support the flow of credit to the economy, which enabled robust growth in lending that year.

The credit-to-GDP gap has narrowed significantly since 2021 Q2, in tandem with the start of the economic recovery and the moderation of lending (see Chart 3.2.1). This narrowing credit-to-GDP gap is taken as a positive sign, as the distortions caused to this indicator by the pandemic are corrected. Despite this correction, which continued throughout the rest of 2021, the credit-to-GDP gap remained appreciably above the 2 pp reference threshold, above which signs of imbalances in the credit cycle are thought to exist.[3] With this in mind, it remains important to continue monitoring how this indicator corrects itself in the coming quarters so as to assess its capacity to indicate warning signs.

GDP growth has also contributed to the favourable performance of other macroeconomic indicators. In particular, the output gap has continued the upward trend observed since late 2020. Nevertheless, it remains at significantly negative values that fall far short of pre-pandemic levels (see Chart 3.2.1).[4] These values again confirm that the economic damage wrought by the COVID-19 health crisis has yet to be fully reversed. As regards other complementary indicators that inform the decision on the CCyB, such as credit intensity and the debt service ratio, levels that might point to warning signs have not been observed (see Chart 3.2.2).

3 In line with the statistical specification used by the Banco de España to calculate the credit-to-GDP gap, adjusted to the historically observed average duration of the credit cycle in Spain. By contrast, while the Basel gap has varied along similar lines, it remains at negative levels.

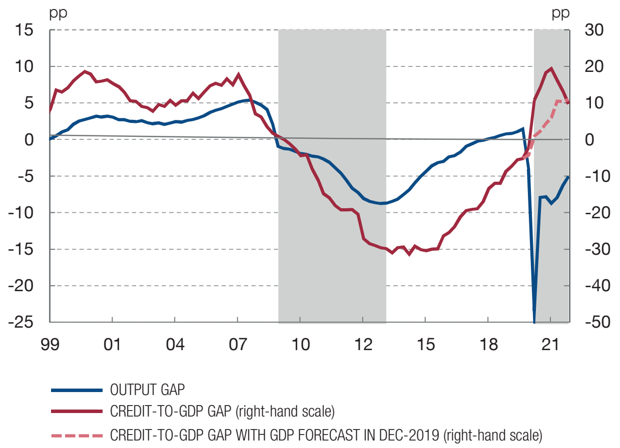
4 The output gap calculation methodology has recently undergone certain changes that have somewhat modified the quarterly variations, without affecting the upward trend recorded in recent quarters.

Chart 3.2

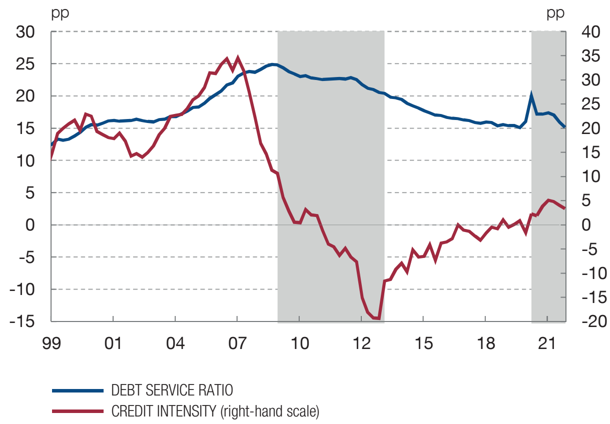
THE CREDIT-TO-GDP AND OUTPUT GAPS HAVE CONTINUED TO CORRECT, ALBEIT NOT YET IN FULL, WHILE COMPLEMENTARY INDICATORS INFORMING DECISIONS ON THE CCyB, SUCH AS CREDIT INTENSITY AND THE DEBT SERVICE RATIO, DO NOT POINT TO WARNING SIGNS

The credit-to-GDP gap narrowed in December 2021 for the third quarter running, though it remains above the 2 pp reference threshold. The output gap remains in negative territory, albeit recovering rapidly. Credit intensity and the debt service ratio (indicators that complement the credit-to-GDP gap when assessing whether to activate the CCyB) are at moderate levels and show no warning signs.

1 CREDIT-TO-GDP GAP AND OUTPUT GAP (a) (b)



2 CREDIT INTENSITY AND DEBT SERVICE RATIO (a) (c)



SOURCES: INE and Banco de España.

a The areas shaded in grey represent the periods of the two financial crises in Spain since 2009: the systemic banking crisis (2009 Q1-2013 Q4) and the crisis triggered by the COVID-19 pandemic (2020 Q1-2021 Q4).

b The output gap is the percentage difference between observed GDP and potential quarterly GDP. Values calculated at constant 2010 prices. See P. Cuadrado and E. Moral-Benito (2016) "Potential growth of the Spanish economy", *Occasional Paper* No 1603, Banco de España. The credit-to-GDP gap is calculated as the difference, in percentage points, between the observed ratio and the long-term trend calculated using a statistical one-sided Hodrick-Prescott filter with a smoothing parameter equal to 25,000. This parameter is calibrated to the financial cycles historically observed in Spain. See J. E. Galán (2019) "Measuring credit-to-GDP gaps. The Hodrick-Prescott filter revisited", *Occasional Paper* No 1906, Banco de España. Data available up to December 2021. The broken line represents a counterfactual credit-to-GDP gap, constructed using the Banco de España's GDP projections at December 2019 for the following two years.

c The debt service ratio is defined as interest payments and debt repayments divided by aggregate disposable income, and therefore measures the effort entailed by servicing debt with respect to available income. This indicator is constructed using a standard formula for calculating the present value of a term loan (using the aggregate stock of credit together with an average interest rate and term) divided by disposable income. See M. Drehmann and M. Juselius (2012), "Do Debt Service Costs Affect Macroeconomic and Financial Stability?", *Quarterly Review,* Bank for International Settlements. The "credit intensity" indicator is calculated as the annual change in credit to the non-financial private sector divided by cumulative GDP for the last four quarters. Data updated as at December 2021.

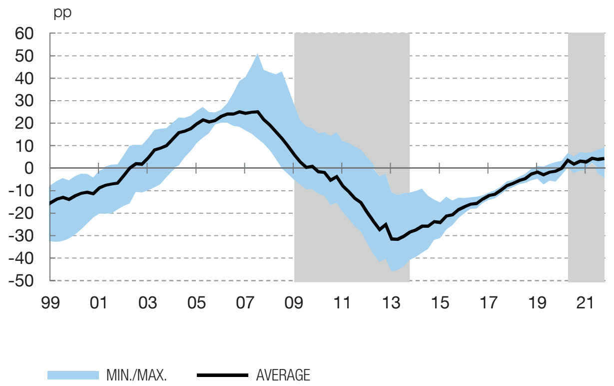
The other indicators typically used to identify cyclical risks also point to the absence of warning signs although house prices are showing early signs of overvaluation. Indeed, the indicators on real estate market imbalances have shown occasional minor signs of overvaluation since the start of 2020, which increased slightly in 2021. While they remain close to equilibrium levels (see Chart 3.3.1), close monitoring of this market is required, as it could be impacted in opposite directions by the war, given the real erosion of agents' income by higher inflation and the possible tightening of financing conditions, but also because it is a safe haven in the face of financial asset price corrections. There have been no significant increases in the other complementary indicators guiding the decision on the CCyB, such as the alternative estimations of credit imbalances or the current account balance (see Chart 3.3.2).

Chart 3.3

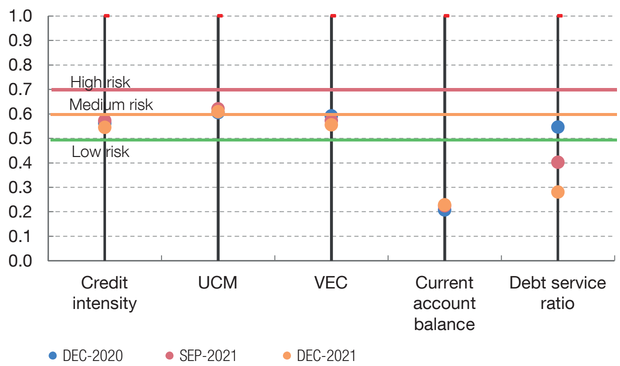
THE INDICATORS OF REAL ESTATE MARKET IMBALANCES REMAIN OUTSIDE ALERT LEVELS, AS DO THE COMPLEMENTARY INDICATORS INFORMING DECISIONS ON THE CCyB

The indicators of real estate market imbalances have remained at positive values since 2020, albeit very close to the equilibrium level. Meanwhile, the complementary indicators for assessing whether to activate the CCyB are at moderate risk levels and show no warning signs.

1 INDICATORS OF HOUSE PRICE IMBALANCES (a)



2 COMPLEMENTARY INDICATORS (b)



SOURCES: INE and Banco de España.

a The blue shaded area the minimum and maximum values of the four indicators of imbalances in house prices. The indicators are: i) the real house price gap; ii) the house prices to household disposable income ratio gap; iii) the ordinary least squares model which estimates house prices based on long-term trends in household disposable income and mortgage interest rates; and iv) the error correction model which estimates house prices based on household disposable income, mortgage interest rates and fiscal effects. The long-term trends are calculated in all cases using a statistical one-sided Hodrick-Prescott filter with a smoothing parameter equal to 400,000. The areas shaded in grey represent the periods of the two financial crises in Spain since 2009: the systemic banking crisis (2009 Q1-2013 Q4) and the crisis triggered by the COVID-19 pandemic (2020 Q1-2021 Q4). Data updated as at December 2021.

b The vertical axis represents the percentiles of the historical distribution for each indicator. The horizontal broken lines depict the risk thresholds associated with the percentiles of the distribution, where the 50th percentile (green line) represents the low risk threshold, the 60th percentile (orange line) represents the medium risk threshold and the 70th percentile (red line) represents the high risk threshold. These thresholds are calculated in real time. The indicators, save for those already representing gaps, are standardised by subtracting the median and dividing by the standard deviation. Included alongside the standard indicators of imbalances are metrics based on a semi-structural unobserved components model (UCM) and a vector error correction (VEC) model, which seek to quantify the total credit to the non-financial private sector-to-GDP gap with respect to fundamental macro-financial variables (GDP, interest rates and house prices). See J. E. Galán and J. Mencía (2018), "Empirical assessment of alternative structural methods for identifying cyclical systemic risk in Europe", *Working Paper* No 1825, Banco de España. Data updated as at December 2021.

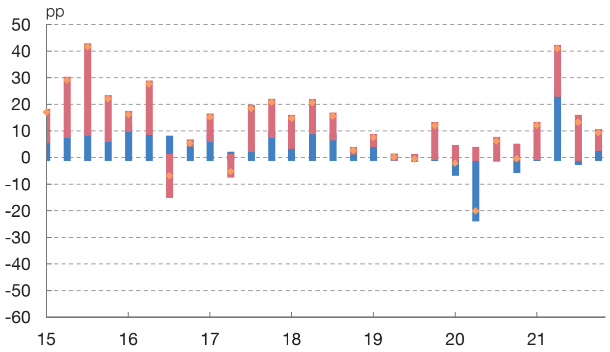
In 2021 H2, the growth in new loans to households could essentially be explained by supply-side factors, whereas the upturn in lending to firms was in large part due to demand-side ones. The econometric model estimates show that, following the contraction seen in 2020, new loans to households grew significantly in 2021, particularly in H1, driven more by supply-side factors than by demand-side ones (see Chart 3.4.1). The fall in business loans recorded since 2020 H2 was reversed in the second half of 2021, whereupon the numbers began to rise gradually. Unlike in the case of loans to households, demand-side factors had a greater role to play in this growth. The Bank Lending Survey for 2022 Q1 in Spain points to rising demand for loans from households and firms, alongside a slight tightening of credit standards in both segments.[5]

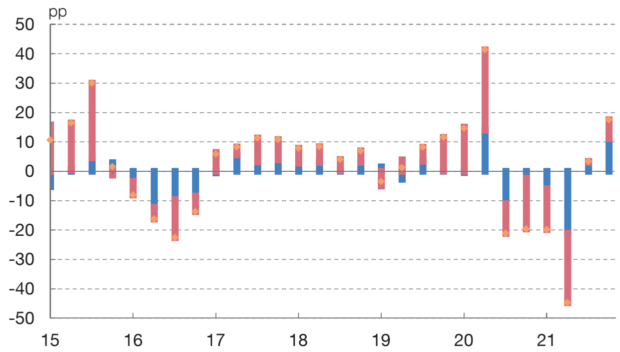
5 See A. Menéndez and M. Mulino (2021). "April 2022 Bank Lending Survey in Spain", Analytical Articles, *Economic Bulletin* 2/2022, Banco de España.

Chart 3.4

GROWTH IN NEW LOANS TO HOUSEHOLDS AND FIRMS IN 2021 H2 WAS DRIVEN BY SUPPLY-SIDE AND (IN THE CASE OF FIRMS) DEMAND-SIDE FACTORS

New lending to households and firms grew in 2021 H2, reversing the contraction in loans to firms that began in 2020 Q3. The growth in new loans to households continued, sustained by positive supply-side factors, albeit at a slower pace than in the first half of the year. The growth in new lending to firms was driven above all by demand-side factors, which had a particularly key role to play in Q4.





SOURCE: Banco de España.

a Cumulative annual change. Breakdown of the supply and demand-side effects obtained using a structural vectoral autoregression (S-VAR) model through which the short-term relationships between credit and interest rate spreads are estimated, allowing for simultaneous shocks between the two variables. The models are estimated separately for lending to households and to firms. Data on new lending in euro area countries are used. New lending excludes renegotiations, overdrafts and credit card balances. For further details, see Box 1 in P. Alves, F. Arrizabalaga, J. Delgado, J. Galán, E. Pérez-Asenjo, C. Pérez Montes and C. Trucharte (2021), "Recent developments in financing and bank lending to the non-financial private sector", Analytical Articles, *Economic Bulletin* 1/2021, Banco de España.

Based on this set of macro-financial indicators and the overall systemic risk assessment, the Banco de España has held the CCyB rate at the minimum level of 0%, and there are no plans to raise it while the output gap remains negative. As it has regularly announced since March 2020,[6] the Banco de España continues to consider it appropriate to maintain the CCyB rate applicable to credit exposures in Spain at 0% to make it easier for banks to sustain the flow of credit and thus help the economy recover until the output gap has been closed. Holding the CCyB rate is consistent with the guidance on the flexible application of prudential requirements in response to this crisis advocated by the ECB and other supra-national bodies.[7] Insofar as the economic recovery takes hold, the CCyB rate (no longer in a context of crisis) will be conditional on the need to create macroprudential space with which to

6 In 2021, the Banco de España adapted its statements on CCyB decisions on account of the amendments set out in Directive (EU) 2019/878 (CRD V) simplifying the framework for notifying CCyB measures in those quarters when the rate for this tool is not recalibrated. Specifically, the Banco de España's quarterly press releases on the CCyB that were released until March 2021 have been replaced by the dissemination of an Excel file with updated quantitative information (available in the CCyB section of the Banco de España's website).

7 Additionally, each year the Banco de España identifies a list of third countries (i.e. outside of the European Economic Area) that are materially significant to the Spanish banking system for CCyB purposes, based on the volume of Spanish banks' international exposures. This exercise is conducted pursuant to the ESRB's methodological recommendations. In 2021 the Banco de España identified the following eight material countries (in alphabetical order): Brazil, Chile, Colombia, Mexico, Peru, Turkey, the United Kingdom and the United States.

address potential future adverse shocks, and on the possible emergence of systemic imbalances that can be addressed with this macroprudential instrument. Russia's invasion of Ukraine has heightened the uncertainty over the macro-financial environment, representing an additional reason, consistent with holding the CCyB rate at 0%, for not adopting measures that tighten financing conditions in the economy, at least until the extent of the new scenario can be ascertained more clearly.

Following the recent publication of Circular 5/2021, implementing new macroprudential tools, the Banco de España is broadening and deepening its analysis of systemic sectoral vulnerabilities. The new sectoral instruments (the sectoral CCyB and the limits on sectoral concentration) will target potential risks emerging in specific sectors for which the aggregate macroprudential tools (which apply simultaneously to all sectors across the board) would prove less effective. These instruments come on top of the recent amendment to the EU legislation on the systemic risk buffer, enabling buffers to be established for specific portfolios or groups of institutions where risks not covered by the CCyB arise. Circular 5/2021 sets out a series of sectoral indicators to inform the potential deployment of these tools (see also Section 3.2.1). The recent performance of some of these metrics with the capacity to act as early warnings of sectoral imbalances in Spain is detailed in Box 3.1. The analysis based on such indicators suggests the absence of warning signs, and there is therefore no need to activate these new sectoral tools as things stand.

Various European countries have decided to raise their CCyB rates in recent months. The build-up of cyclical systemic imbalances in some European economies is an indication that they are now in an upward phase of their credit cycle. Other European economies are aiming to create macroprudential space with which to be able to adjust to other types of shocks that may have an adverse impact on their banking sectors. To this end, various authorities have already notified measures to raise their CCyB rates. Specifically, since the last FSR, eleven national authorities in the EU/EEA have notified decisions to activate or upwardly revise their CCyB rates, as shown in Table 3.1.[8] The Netherlands is among the jurisdictions that have most recently modified their framework for calibrating the CCyB, which will now be activated where the economic conditions so allow so as to create macroprudential space with which to address unspecified risks, without the need to first identify credit cycle imbalances.

The situation of the real estate market in the rest of Europe varies considerably, with significant imbalances in some countries calling for macroprudential measures to be set in place. There is some concern that real estate market imbalances may be building up in some EU Member States. With this

8 In Germany, the CCyB measure has been supplemented with a sectoral systemic risk buffer for exposures to the residential real estate sector. See the German Financial Stability Committee press release "German Financial Stability Committee welcomes the Federal Financial Supervisory Authority's announced package of macroprudential measures", 12 January 2022.

Table 3.1
RECENT CCyB INCREASES IN EUROPEAN COUNTRIES

Country	Current CCyB (%)	Latest CCyB announced (%)	Implementation date (a)
Bulgaria	1.00	1.50	01/01/2023
Croatia	0.00	0.50	31/03/2023
Czech Republic	1.50	2.00	01/01/2023
Denmark	1.00	2.00	31/12/2022
Estonia	0.00	1.00	07/12/2022
France	0.00	0.50	01/04/2023
Germany	0.00	0.75	01/02/2023
Iceland	0.00	2.00	29/09/2022
Norway	1.50	2.00	31/12/2022
Romania	0.00	0.50	17/10/2022
United Kingdom	0.00	1.00	13/12/2022

SOURCES: ESRB, BIS and national authorities.

a Increases to CCyB rates generally apply 12 months after they are announced.

in mind, on 11 February the ESRB updated its list of countries with housing market-related warnings or recommendations.[9] In general, the ESRB notes that certain risks have increased in these countries (which do not include Spain), thus requiring them to reinforce or activate the policy instruments required to contain them, such as macroprudential tools.[10] In this regard, Box 3.2 describes the situation in the European housing markets in which the ESRB has identified systemic imbalances, comparing them with the situation in Spain and other countries that have not received such warnings or recommendations. The box also describes the macroprudential measures adopted by the countries in which imbalances have been detected. With respect to such actions, it is worth noting that Circular 5/2021 provides for the possibility of setting limits on credit terms and conditions and, in particular, on mortgages and loans for the construction and real estate sectors. For the time being, sufficient signs of risk that might justify these measures have not yet been observed in Spain.

In December 2021, the Banco de España announced the designation of Banco Santander, S.A. as a global systemically important institution (G-SII) in 2023.[11]

9 The ESRB has sent new recommendations to Austria and Germany. Moreover, warnings were sent to Bulgaria, Croatia, Hungary, Liechtenstein and Slovakia. The key difference between these two policy actions is that recommendations set out specific measures (and are therefore subject to the "act or explain" principle) and have a timetable for implementation. Meanwhile, warnings simply point to the housing market risks, noting that the policy response of the country's authorities should be reconsidered (in general). For further information, see "ESRB issues new warnings and recommendations on medium-term residential real estate vulnerabilities", ESRB press release, 11 February 2022.

10 In 2019, the ESRB sent recommendations to the authorities in Belgium, Denmark, Finland, Luxembourg, the Netherlands and Sweden. Moreover, that same year, the ESRB sent warnings to the following countries: the Czech Republic, France, Germany, Iceland and Norway.

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

The identification of this institution as a G-SII for another year entails the need to maintain a macroprudential capital buffer of 1% of CET1.[12] The G-SII buffer, which helps shore up the institution's loss-absorbing capacity, has been conceived with the precautionary goal of mitigating the adverse systemic impact that institutions of this nature (due to their size, level of interconnectedness, complexity and cross-border activity, and the substitutability of the services they provide) could potentially have on the financial system.

3.2 Regulatory and supervisory developments relevant to financial stability

3.2.1 Regulatory developments in Spain

As mentioned above, in December 2021 the Banco de España approved Circular 5/2021, implementing its new macroprudential tools.[13] The Circular details the technical specification of three types of macroprudential tools incorporated into the Spanish legislation governing credit institutions via Royal Decree-Law 22/2018 and Royal Decree-Law 102/2019 ahead of their potential use by the Banco de España to address risks to financial stability: i) a sectoral countercyclical capital buffer (SCCyB); ii) sectoral limits on credit concentration; and iii) limits and conditions on loan origination and other transactions. The SCCyB complements the CCyB and is consistent with the Basel Committee's principles for the operationalisation of this tool.[14] The possible limits on lending include, among others, the loan-to-value ratio, the debt-service-to-income ratio, the debt-to-income ratio and the maturity of the loan. With this important legislative development, the Banco de España has matched those EU national bank authorities (NBAs) that have a more comprehensive macroprudential toolkit.

Royal Decree 970/2021, of 8 November 2021, and Banco de España Circular 3/2022, of 30 March 2022, have completed the transposition of Directive (EU) 2019/878 (CRD V), on banking solvency. The legislative changes in CRD V promote appropriate risk management by credit institutions to ensure their solvency and strengthen banks' resilience to systemic risks. On the macroprudential front, the main changes refer to: i) the sectoral application of the systemic risk buffer; ii) methodological adjustments for setting systemically important institutions' capital buffers; and iii) the simplification of the system whereby national authorities notify European bodies of proposed macroprudential measures.

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12 This Banco de España measure is a macroprudential action envisaged in the prevailing EU and Spanish legislation, formalising the prior designation of this bank as a global systemically important bank (G-SIB) by the Financial Stability Board (FSB). See "2021 List of Global Systemically Important Banks (G-SIBs)", FSB press release, 23 November 2021.

13 See the Banco de España press release and the presentation by the Director General Financial Stability, Regulation and Resolution "El marco de política macroprudencial del Banco de España" (only the Spanish-language version is available), both dated 23 December 2021.

14 See *Guiding principles for the operationalisation of a sectoral countercyclical capital buffer* published in 2019.

The Banco de España has also approved Circular 1/2022, of 24 January 2022, on specialised lending institutions (SLIs). In addition to solvency and shareholder-structure reporting requirements, the Circular introduces a liquidity buffer requirement for SLIs so that they can withstand liquidity outflows during times of market stress. It also requires them to maintain an appropriate structure of funding sources and of asset and liability maturities so as to avoid potential liquidity strains or imbalances that could jeopardise their financial position. These requirements take their lead from those established for credit institutions. However, they are tailored to SLIs' particular characteristics and, specifically, to the fact that their sources of funding do not include either customer deposits or the central bank.

With regard to the application of accounting standards, some of the flexibility measures adopted by the Banco de España during the early stages of the pandemic[15] have ceased to apply due to the improved macroeconomic environment. For instance, among others, there was no need to extend the legislative moratoria on loans established during the pandemic. However, changes as regards the credit-risk classification of forborne exposures remain in force. This has afforded greater flexibility in applying expert judgement to classify them. Restructured and forborne exposures do not necessarily need to be classified as Stage 2 exposures where their classification as non-performing is not appropriate if institutions believe that there has not been a significant increase in credit risk.

3.2.2 Developments in Europe and around the world

The legislative process related to the European Commission's proposal to implement the final Basel III reforms in EU banking legislation has continued. The proposal to amend the Capital Requirements Regulation and Directive (CRR/CRD, respectively) was published in October 2021 and aims to make EU banks more resilient without significantly increasing capital requirements. In March the ECB issued an opinion[16] on the proposed legislative amendments in CRR III, stressing that it was desirable not to deviate from the global regulatory standards, in particular vis-à-vis the specific details on the introduction of an output floor for the own funds required of institutions authorised to use internal models to calculate capital requirements.

In February 2022 the Supervisory Board of the ECB decided[17] not to extend the capital and leverage relief for banks that had been introduced at the onset of

15 See "The Banco de España makes two sets of amendments to Circular 4/2017 to credit institutions on financial reporting rules", press release, 16 June 2020.

16 See "ECB Opinion on a proposal for amendments to Regulation (EU) No 575/2013 as regards requirements for credit risk, credit valuation adjustment risk, operational risk, market risk and the output floor" (CON/2022/11).

17 "ECB will not extend capital and leverage relief for banks ", press release, 10 February 2022.

the pandemic. The ECB saw no need to allow banks to operate below the level of capital defined by their Pillar 2 Guidance beyond December 2022, or to extend beyond March 2022 the supervisory measure allowing them to exclude central bank exposures from their leverage ratios. The ECB communicated this path back to normality, while acknowledging that although there was still some uncertainty regarding the impact of the pandemic, banks had ample headroom above their capital requirements and above the leverage ratio requirement. Following the usual practice, the Banco de España applied this measure to the credit institutions it supervises directly.[18]

The temporary regulatory measures included in the amendments to European banking regulation in response to COVID-19 (CRR quick fix) are also coming to an end.[19] 2022 is the last year when institutions can apply the prudential filter established for changes in the fair value of sovereign debt instruments measured at fair value through other comprehensive income, to temporarily and partially (40%) neutralise their impact on CET1. Turning to the option of CET1 being affected gradually by the higher credit losses estimated as a result of using the expected credit loss model under IFRS 9 as opposed to the incurred loss model, the applicable deferral in 2022 is 75% (100% a year earlier). The discretionary powers granted to supervisors vis-à-vis the adjustment to banks' internal model-based calculations of market risk requirements expired in December 2021.

In 2021 the European Commission began the groundwork for the review of the EU macroprudential framework for the banking sector, calling for advice from the ECB, the ESRB and the EBA, and launching a public consultation.[20] The three European authorities' advisory reports – in whose preparation the NCBs and the national supervisory authorities were involved – mainly analyse matters relating to the design and functioning of the frameworks for capital buffers and other macroprudential instruments. With a notable degree of consensus (see Table 3.2) the ECB and the ESRB propose[21] to: relax the use and activation of the CCyB; press forward with standardising the O-SII buffer; review the framework for releasing capital buffers; refrain from introducing powers to impose restrictions on capital distributions at systemic level; and recast the legal provisions on the tightening of risk weights for mortgage exposures. In addition, they advocate considering the macroprudential policy to deal with systemic cyber risks and climate-related risks,

18 "El Banco de España pone fin a la exclusión temporal de determinadas exposiciones frente a los bancos centrales del Eurosistema en el cálculo de la ratio de apalancamiento de las entidades de crédito menos significativas", press release, 28 February 2022 (only available in Spanish).

19 For a description of the quick fix see Box 3.3 of the Autumn 2020 Financial Stability Report.

20 Call for Advice - Review of the EU Macroprudential Framework, 8 July 2021, and "Targeted consultation on improving the EU's macroprudential framework for the banking sector", 30 November 2021.

21 See "ECB response to the European Commission's call for advice on the review of the EU macroprudential framework" and "ESRB Concept Note on the Review of the EU Macroprudential Framework for the Banking Sector", both dated 31 March 2022. At the cut-off date for this FSR, the EBA's advisory report had not been published.

and developing the non-bank regulatory framework. The ECB and ESRB advisory reports and the feedback received from other stakeholders via the public consultation (which ended on 18 March) will serve as the basis for the European Commission's legislative proposal for amendments to the CRR/CRD planned for the end of 2022.

The Basel Committee on Banking Supervision (BCBS) has announced[22] that it intends to review the implications of developments related to the banking union for the global systemically important banks assessment methodology. To acknowledge and reflect appropriately the particularities of the banking union (as a supranational jurisdiction equipped with a Single Supervisory Mechanism and a Single Resolution Mechanism), the BCBS has started to study possible adjustments to the treatment of cross-border exposures in its G-SIB methodology. The BCBS has also decided to replace the existing three-year review cycle of the methodology with a process of ongoing monitoring and review (without a pre-determined frequency).

The BCBS has continued its work on climate-related financial risks, disclosure standards and crypto-assets.[23] It launched a public consultation on a set of principles for the effective management and supervision of climate-related financial risks. It also revised its disclosure requirements to reflect changes to the minimum capital requirements for market risk published in January 2019 and proposed three voluntary disclosures for sovereign exposures.[24] The BCBS also reviewed the feedback received regarding its consultation on the prudential treatment of banks' crypto-asset exposures and reiterated the importance of developing a conservative risk-based global minimum standard to mitigate prospective risks from crypto-assets to the banking system. In this connection, it should be noted that the G20 has raised the warning level as regards the risks from crypto-assets, pending the development of appropriate regulation. The special chapter of this report discusses in more detail the risks associated with these instruments and the related regulatory developments.

The European Securities and Markets Authority (ESMA) published in December the results of its (post-Brexit) assessment of the systemic importance of two central counterparties (CCPs) established in the United Kingdom.[25] After consulting with the ESRB and the EU central banks, ESMA concluded that the interest rate derivatives clearing services of LCH Ltd and the credit default swaps and short-term interest rate derivatives clearing services of ICE Clear Europe Ltd were of "substantial systemic importance" to the EU's financial stability and posed

22 See the BIS press release, 9 November 2021.

23 See "Basel Committee consults on principles for the effective management and supervision of climate-related financial risks", press release, 16 November 2021.

24 See "Basel Committee finalises revisions to market risk disclosure requirements and voluntary disclosure of sovereign exposures", press release, 11 November 2021.

25 For further details, see "ESMA publishes results of its assessment of systemically important UK Central Counterparties", press release, 17 December 2021.

Table 3.2
COMPARISON OF ISSUES ADDRESSED IN THE ECB AND ESRB ADVISORY REPORTS IN RESPONSE TO THE CALL FOR ADVICE FROM THE EUROPEAN COMMISSION

	ECB	ESRB
Make the operationalisation of the CCyB more flexible	X	X
Review the methodology for identifying and setting O-SII buffers	X	X
Increase releasable buffers	X	X
Refrain from introducing leverage ratio buffers for O-SIIs	X	
Refrain from introducing powers to place restrictions on capital distributions at systemic level	X	X
Authorise the introduction of lending limits and conditions		X
Maintain the voluntary reciprocity framework for the measures under Article 458 of the CRR	X	
Recast the powers to tighten the risk weights for mortgage exposures	X	X
Strengthen the macroprudential policy to deal with systemic cyber risks and climate-related risks	X	X
Strengthen the non-bank regulatory framework	X	X

SOURCE: Banco de España.

risks that might not be sufficiently mitigated under the current regulatory framework. However, it concluded that the costs for, and risks to, the EU's financial system were the European Commission to potentially derecognise the UK CCPs would outweigh the benefits, particularly in stress events.

Based on this prior analysis, in February the European Commission adopted the decision[26] to extend equivalence for UK CCPs for three years until 30 June 2025. This decision (whose proposal had been announced in November)[27] aims to avoid potential short-term financial market disruptions and, in the medium term, provide enough time to implement reforms that increase EU CCPs' clearing capacity. Therefore, between February and March the European Commission launched a public consultation and a call for evidence to prepare a package of specific measures – scheduled for the second half of 2022 – geared, from a financial stability perspective, to reducing the EU's dependence on systemic third-country CCPs and to enhancing the regulatory and supervisory framework.

The ESRB issued Recommendation ESRB/2021/9[28] on reform of money market funds (MMFs). This recommendation was for the European Commission and was part of the review, scheduled for this year, of the EU Regulation on MMFs. In 2020 the pandemic threw into relief the vulnerabilities of this type of investment vehicle, some of which experienced liquidity strains when faced with a high level of

26 "Capital Markets Union: Commission extends time-limited equivalence for UK central counterparties and launches consultation to expand central clearing activities in the EU", press release, 8 February 2022.

27 "Commissioner McGuinness announces proposed way forward for central clearing", statement, 10 November 2021.

28 "ESRB recommends increasing the resilience of money market funds", ESRB press release, 25 January 2022.

redemptions by investors combined with a lack of liquidity in private debt money markets, with the consequent risk of spill-over to other sectors of the financial system. In order to increase MMFs' shock-absorbing capacity, among other proposals made to the European Commission, the ESRB recommended that MMFs be made to diversify their assets and boost their liquidity by requiring them to hold public debt assets issued by a diversified set of bodies,[29] along with improvements in stress testing.

In January it also published Recommendation ESRB/2021/17[30] on a pan-European systemic cyber incident coordination framework for relevant authorities. Major cyber incidents can erode confidence in the financial system and pose a systemic risk for which it is essential that financial authorities be properly prepared and coordinated. The proposed framework aims to strengthen both coordination among EU authorities and interaction with other global authorities. The report accompanying the Recommendation analysed the current macroprudential framework's capacity to contend with risks and vulnerabilities stemming from systemic cyber risk and concludes that it would be advisable to develop the mandate of, and macroprudential tools available to, the authorities to encompass cyber resilience goals.

In September 2021 the European Commission published a legislative proposal[31] for the review of EU insurance rules (known as "Solvency II"). The aim of the review is to enable insurance companies to scale up long-term investment in Europe's recovery from the COVID-19 pandemic and to make the insurance sector more resilient so that it can weather future crises and better protect policyholders. Solvency II does not currently establish specific macroprudential tools to address the build-up of systemic risks; in this setting, the current review incorporates new legal provisions (previously suggested by the ESRB) on liquidity instruments, the provision of critical services, the recovery and resolution framework, and the role of the ESRB in declaring exceptionally adverse situations.[32]

29 For more details on this proposal, see also the ECB Macroprudential Bulletin, Issue 16, 21 January 2022.

30 "ESRB recommends establishing a systemic cyber incident coordination framework", ESRB press release and Mitigating systemic cyber risk, ESRB report, both dated 27 January 2022.

31 See European Commission press release "Reviewing EU insurance rules: encouraging insurers to invest in Europe's future", 22 September 2021.

32 For further details on the macroprudential elements included in the legislative proposal, see the letter "Solvency II review", from the Head of the ESRB Secretariat to several members of the European Parlament, on 2nd February 2022.