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**Macroprudential policy: objectives, tools and the current situation**

Deusto Business Alumni Meeting

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Governor

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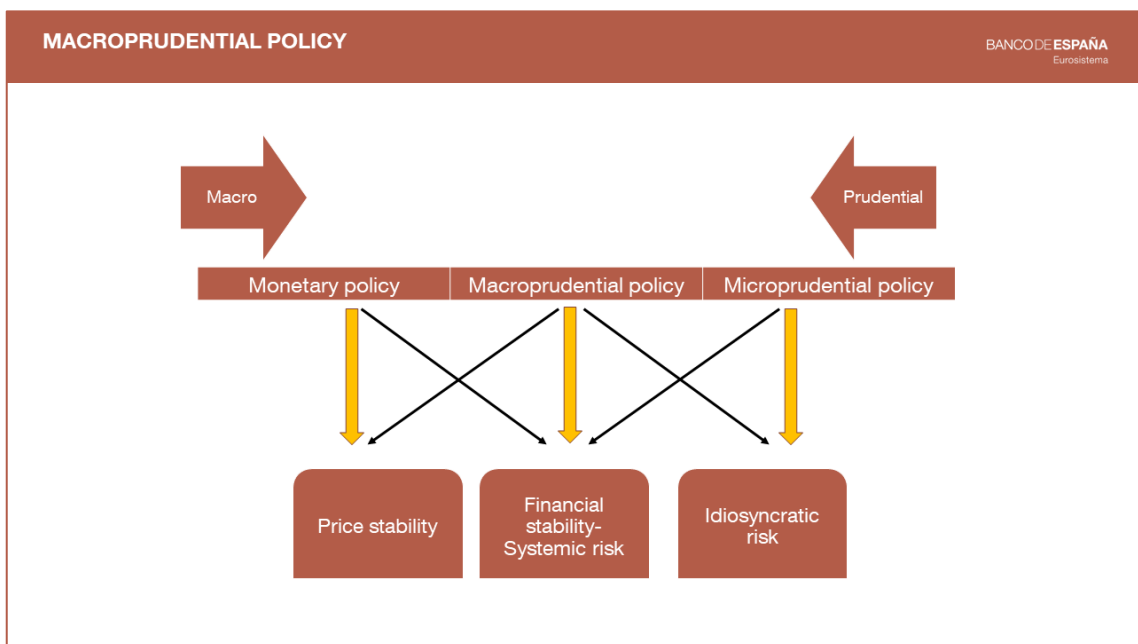
Good morning everyone.

It is an honour and a pleasure to be able to participate in this event organised by Deusto Business Alumni. These types of conferences are very useful for the Banco de España, as they allow us to raise awareness of the substance of the various tasks and responsibilities conferred on us.

One of these tasks is fostering financial stability. We all know that the main function of the financial system pertains to financial intermediation, which is key to the smooth functioning of the economy. Hence, by “financial stability” we understand that situation in which the financial system is capable of withstanding shocks without disruption to the financial intermediation process on a sufficiently serious scale as to adversely affect real economic activity.

To attain this objective, we have equipped ourselves with a very broad regulatory and supervisory framework for banks and financial activity. The key novel aspect of this framework is what is referred to as “macroprudential policy”, whose design and implementation, in the case of the Spanish banking sector, is the responsibility of the Banco de España.

Today I would like to focus precisely on explaining what macroprudential policy is and what its main design elements are in the case of Spain.



### The origins of macroprudential policy

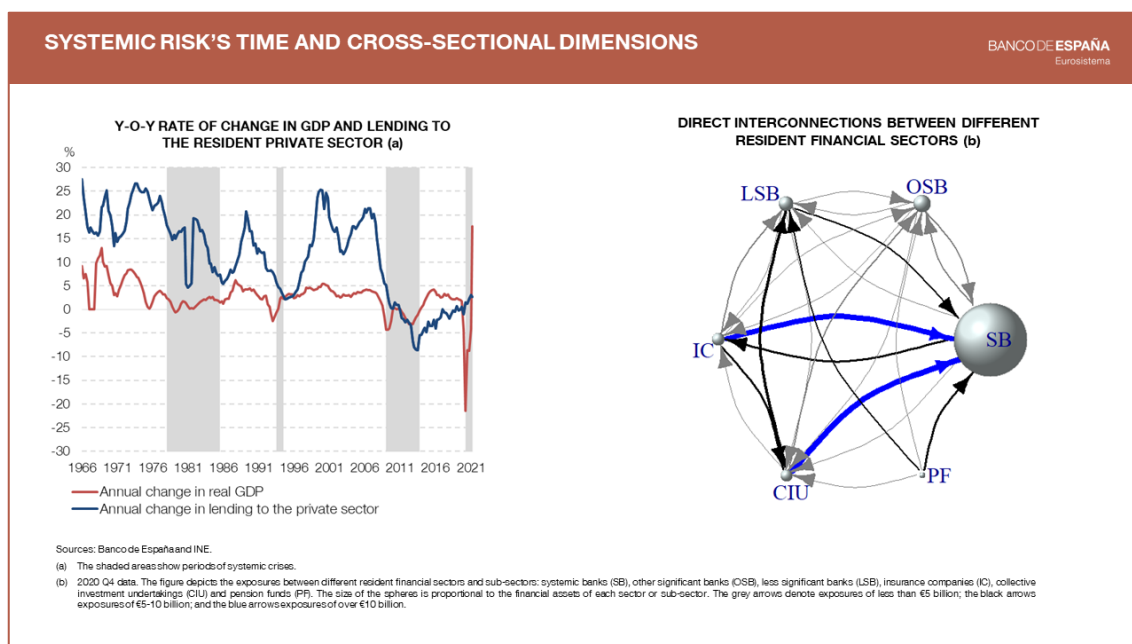
Before the global financial crisis, it was considered that, to achieve the objective of a sound, safe and stable financial system, it sufficed to ensure the solvency of each financial institution and market individually. However, the origin of the crisis was the build-up of certain financial sector imbalances which had an essentially macroeconomic dimension. This highlighted how the microprudential approach, bank by bank and market by market, was insufficient to ensure the financial stability of the system as a whole.

This problem stems from what is known as the “fallacy of composition”.<sup>1</sup> On occasions, bank managers’ decisions can be optimal from an individual perspective, but are not so once the effects on the system as a whole through the numerous interconnections between the different intermediaries and financial markets are taken into account. Aggregate macro-financial imbalances, known as “systemic risks”, may arise, which can also interact adversely with economic cycle fluctuations.

To ensure macro-financial stability, it was deemed necessary for economic policymakers to have an additional set of instruments. More specifically, macroprudential policy is entrusted with ensuring the soundness of the financial system in the face of systemic risk. This is the risk that financial instability becomes so widespread that it hampers the functioning of the system to the extent that economic growth and the welfare of the population are adversely affected.

The “macro” prefix to this policy thus refers, on one hand, to the fact that it adopts an aggregate approach for the financial system as a whole; and, on the other, that it seeks to regulate the financial cycle, since this may amplify the economic cycle.

The term “prudential”, for its part, refers to the fact that it has to act pre-emptively; it will seek firstly to mitigate the accumulation of systemic risk or its potential materialisation, and secondly to generate buffers (mainly add-ons to banks’ capital requirements) enabling the impact of systemic risk, should it materialise, to be cushioned.



## The multi-dimensional nature of systemic risk

The concept of systemic risk has multiple dimensions, which also interact with each other. Specifically, there are at least two dimensions to this risk.

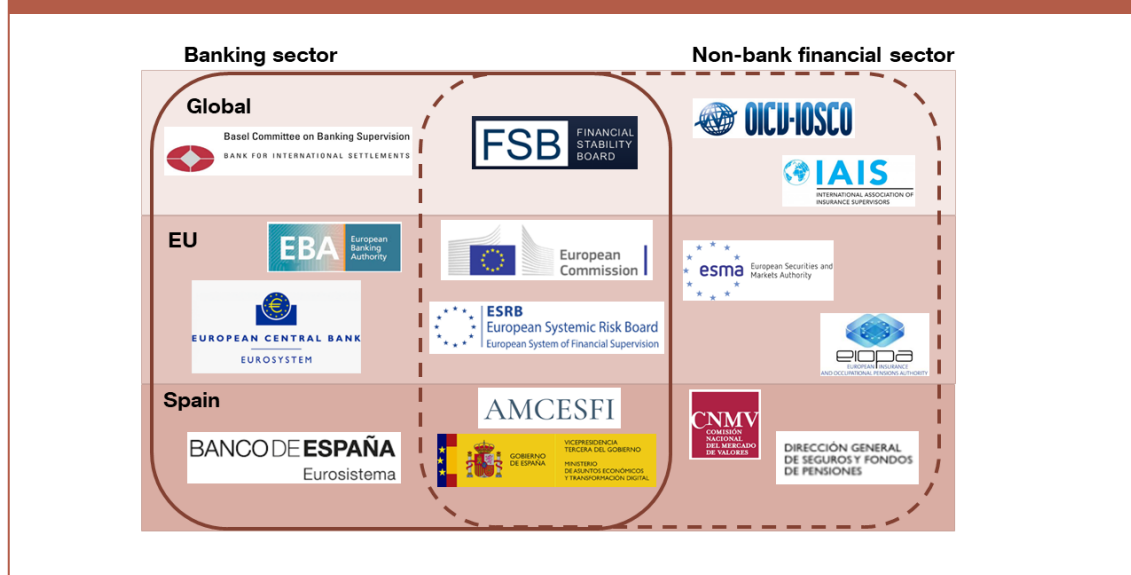
<sup>1</sup> See, for example, Brunnermeier et al. (2009).

The first is the time dimension, which is related to how systemic risk evolves over the course of the financial cycle. A good example of this dimension can be found in the run-up to the global financial crisis. During those years, there was strong growth in credit to the non-financial private sector in Spain (in particular to real estate development and construction activities), attaining levels far above those considered sustainable. This situation was accompanied by price rises and increases in real estate market activity that were not consistent with developments in its fundamentals.

Against this background, household and corporate debt associated with real estate transactions mounted to such an extent over time that, when its sustainability was questioned and financing ground to a halt, there was a sharp correction to these financial imbalances. This correction had a considerable cost in terms of GDP and employment, directly affecting the losses the financial system would have to address and which had only been but partly expected in the prior expansionary phase.

The second is the cross-sectional dimension, through the various intermediaries making up the financial system. This dimension derives from specific structural characteristics of the financial system that may amplify the impact of any shock to it. Indeed, the financial system is made up of highly heterogeneous institutions, in terms both of size and complexity. In turn, these institutions are very closely interconnected, both through direct exposures in the interbank market and indirect exposures, which may be to the same economic sectors or even to the same agents (firms or governments).

Both the diversity of the players and their close interconnectedness notably improve the efficiency of the system, since they provide maximum specialisation in risk management. But they also generate vulnerabilities, since the difficulties of one institution can swiftly pass through to the rest. This means that the situation of those institutions that might destabilise the system, whether because of their size, their complexity or their central position within it, is especially significant.



### The institutional design of macroprudential oversight

The significant interconnectedness of these financial system players calls for an overarching view when taking macroprudential policy decisions. And this requires close coordination among key institutions if, as in Spain, the oversight of the financial system is shared by different national and European authorities. No less important is the need for international coordination, on account of interconnections and global financial flows. Indeed, some researchers have noted the presence of a global financial cycle (see Rey, 2015).

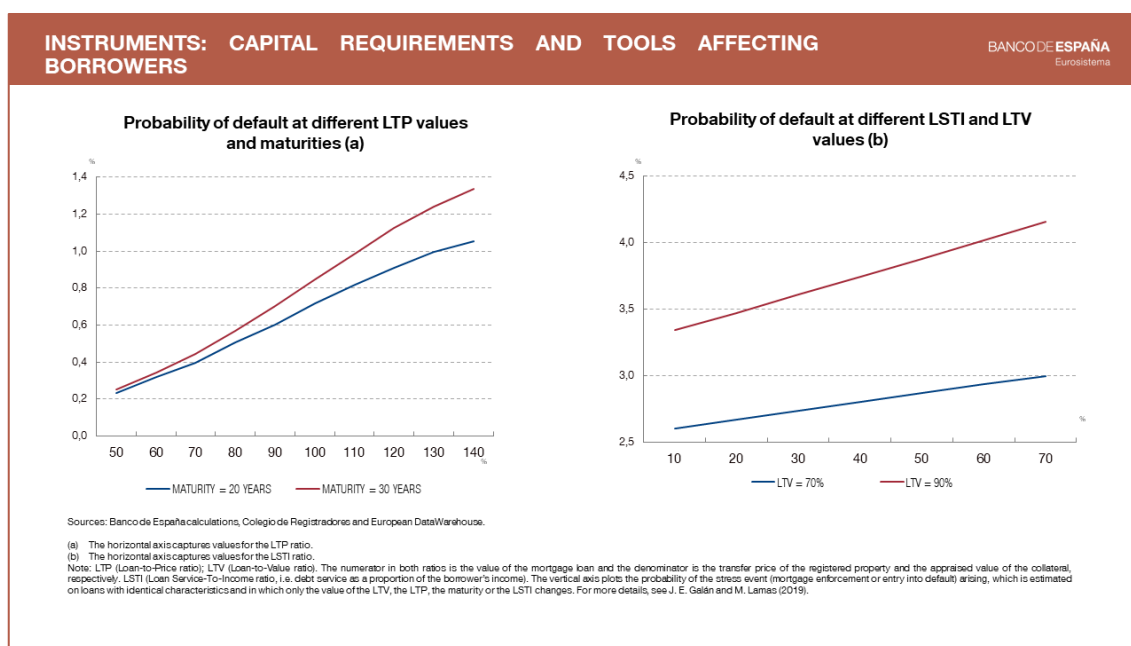
In 2014 the Banco de España was designated as the authority entrusted with drawing up and adopting macroprudential measures applicable to credit institutions in Spain. Spain has, moreover, another two sectoral prudential supervisory authorities: the National Securities Market Commission (CNMV) – whose prudential remit covers securities markets and various investment vehicles, among others – and the Directorate General of Insurance and Pension Funds of the Ministry of Economic Affairs and Digital Transformation. The General Secretariat of the Treasury and International Financing, which reports to this latter Ministry, is responsible for the implementation of financial regulation in Spain, including that stemming from the transposition of the growing number of European Union (EU) regulations in this area.

To coordinate the macroprudential actions of these authorities, the Spanish macroprudential authority (AMCESFI) was created in 2019. AMCESFI is structured as a collegiate body in which the aforementioned authorities participate, and it acts as a forum for discussing the situation of the financial system and for consulting on the proposed macroprudential measures.

The need for coordination is no less important at the supranational level. Thus, in Europe, to ensure that the macroprudential measures that may be adopted by the different countries are consistent and that potential national inaction bias is reduced, the European Central Bank (ECB) is empowered to tighten some of the measures applied by the national authorities forming part of the Single Supervisory Mechanism (SSM). Moreover, the

European Systemic Risk Board (ESRB) brings together the heads of all the EU central banks and regulatory and supervisory authorities for banks, securities, insurance and pension funds. The ESRB, whose Advisory Technical Committee it has been my honour to chair since 2019, conducts macroprudential oversight tasks and is empowered to issue opinions, warnings and recommendations relating to systemic risks and the suitability of macroprudential measures proposed at the national level.

Lastly, at the global level, the Basel Committee on Banking Supervision (BCBS) (in the banking sphere) and the Financial Stability Board (FSB) (in relation to the financial sector and its interconnections) play a key role in overseeing global systemic risks and promoting the measures and regulatory standards to tackle them in a consistent and coordinated manner.



## Macroprudential tools and credit institutions

The multi-dimensional nature of systemic risk means that macroprudential policy needs an extensive range of tools (or instruments) to allow it to tackle each of these dimensions as efficiently as possible. Moreover, given that a wide variety of institutions with greatly diverse characteristics operate in the financial sector, these instruments should be adjusted to their particularities.

For the purpose of my address, it is useful to distinguish between the tools that affect the capital requirements on credit institutions and those that fall on borrowers.

## Capital requirements

The banking regulations in force require banks to have sufficient capital set aside to cover unexpected losses and to maintain their solvency in the event of a crisis. The amount of

capital required depends on the risk linked to a specific bank's assets and, in fact, is expressed as a percentage of risk-weighted assets.<sup>2</sup>

Among the macroprudential tools is the possibility of increasing institutions' capital above the microprudential requirements. This greater requirement of capital increases banks' loss-absorption capacity and, moreover, moderates their appetite for risk, given that the losses that shareholders must bear in the event of difficulty increase as a result.

When these tools are used to tackle the time dimension of systemic risk, they are normally applied countercyclically to the entire banking system, in what is known as the “**countercyclical capital buffer**” (CCyB). Thus, capital requirements would rise in expansionary phases of the credit cycle, increasing the cost of credit and checking its expansion, and fall in recessionary periods, reducing the cost of credit and sustaining supply.

The tools designed to address the cross-sectional dimension of systemic risk tend to be more stable. These tools include, firstly, the **buffer for systemically important institutions** (at the global and national level), which is applied to those banks identified as capable of destabilising the system if they run into financial problems. Since the potential costs for society of any difficulties faced by these banks are higher, it is reasonable to demand of them some extra protection against shocks and to induce their managers to adopt more prudent risk-taking.<sup>3</sup>

Systemic institutions are identified following standardised methods coordinated by the FSB and the BCBS. This methodology is based on weighted metrics of various bank variables, such as size, complexity, interconnectedness, ability to replace their activities and volume of cross-border activity. The Banco de España annually conducts an exercise to identify systemically important institutions at the national level, using a standardised European methodology very similar to that used at the global level.

There is also a hybrid tool that combines the cross-sectional and time dimensions of systemic risk, known as the “**systemic risk buffer**”, which is intended to tackle, in a flexible and discretionary manner, those risks not covered by the foregoing buffers. This is an exclusively European tool that was not introduced by Basel III. This buffer may be applied to the entire banking system, to a sub-set of credit institutions or to one or several sectors of economic activity.

The foregoing macroprudential tools are provided for in European legislation. However, many countries, among them Spain, have deemed it necessary to broaden the tools available. Thus, in late December 2021, the Banco de España approved Circular 5/2021, which implements three new macroprudential tools: a sectoral component of the CCyB, limits on sectoral concentration, and limits and conditions on loan origination.

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<sup>2</sup> The concept of risk-weighted assets basically means that a lower capital allocation is attributed to the safest assets, while the riskiest assets are assigned a greater risk weight. In other words, the riskier the asset, the more capital the bank will have to hold in reserve. In parallel, specific grades are assigned to capital, depending on its quality in terms of its loss-absorption capacity.

<sup>3</sup> In addition, these buffers can correct some of the competitive advantages these institutions might have on the funding markets (i.e. a lower borrowing cost compared with other institutions) stemming from investors internalising the fact that, given its systemic importance, the institution will be bailed out by the public sector should difficulties arise.

The **sectoral component of the CCyB** provides for establishing an additional capital requirement exclusively for banks' credit exposures to a specific economic sector. Consequently, this tool is designed to surgically address systemic vulnerabilities when they are concentrated in one or several sectors of economic activity and before they pass through to the system as a whole.

The **limits on sectoral concentration** provide an additional shield, to be used as a last resort, against sectoral imbalances, by restricting the volume of credit exposures to a specific sector. Given that concentration is defined in terms of the ratio of sectoral exposure to common equity tier 1 (CET1) capital, the activation of a limit would not entail an absolute cap on exposures, but it would require that exposures above the limit be backed-up in the same amount with capital.

### **Macprudential tools falling on borrowers**

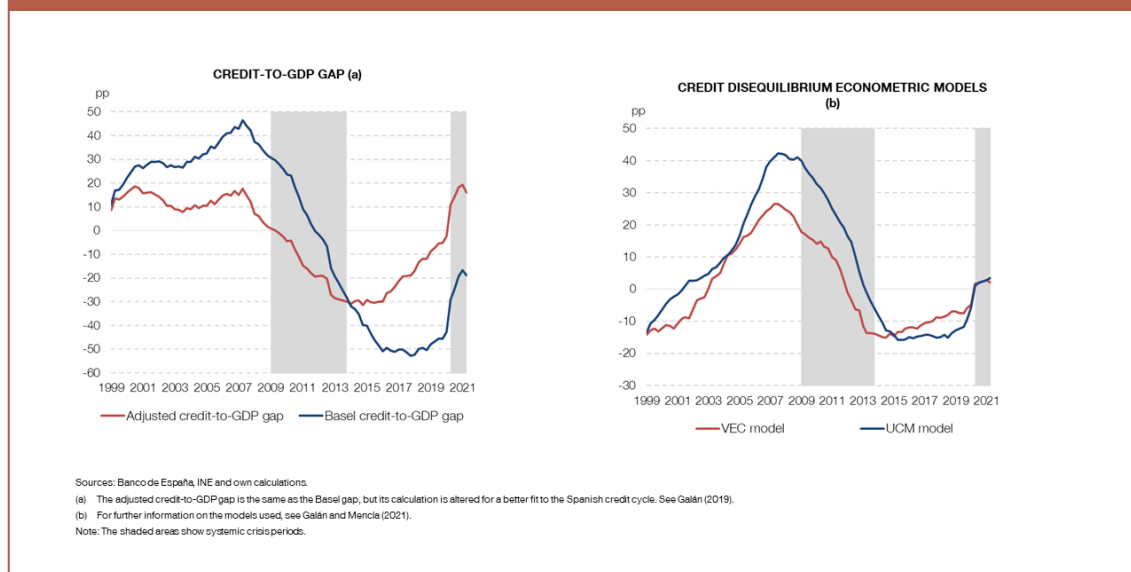
The new Circular 5/2021 also allows the Banco de España to introduce restrictions on several of the characteristics of loans granted to debtors. This would mean, for example, limiting the maximum debt of a customer based on different variables, such as the value of the collateral provided or their income.

The empirical evidence has shown that lending standards have a very significant impact on the risk of ex post default by borrowers (see, for example, Galán and Lamas, 2019), in the sense that looser standards (e.g. a higher percentage of the loan relative to the collateral backing it) increase that risk. Consequently, by establishing minimum conditions for accessing bank financing, these tools strengthen the borrower's solvency and, thereby, limit the potential losses that banks would subsequently have to bear.

These restrictions are solely applicable to banks' new lending business; hence, their introduction immediately causes banks to restrict the supply of credit. And this prompts an immediate effect on households' and firms' consumption and investment decisions. These agents will presumably reduce their level of spending and, consequently, their demand for credit. Also, financial and real asset prices will be adversely affected by the lower level of spending and by the expectations channel, reducing the collateral available. These effects feed into each other, further reducing credit supply and demand.

The specific characteristic of loans that will be subject to limits at each point in time will depend on the situation we are in; in particular, on the level of and developments in loans already granted. And the possibility that several limits will have to be set simultaneously cannot be ruled out as, when loose conditions are observed in several of these characteristics, there is usually a more than proportionate increase in the probability of default. Moreover, when only one of the characteristics is limited, another characteristic typically becomes looser as a counterbalance (see, for example, Tzur-Ilan, 2017).





## Macroprudential policy in practice

Timely activation of macroprudential tools calls for indicators that enable the risks to be monitored and which, in parallel, allow the use of the instruments and their effects to be calibrated.

## Systemic risk indicators

As to the time dimension of systemic risk, the aim of these indicators is to monitor financial cycle developments and to identify possible unsustainable dynamics.

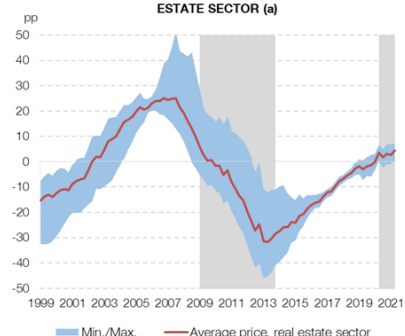
No single indicator summarises all the information on the financial cycle, but current regulations give a special role to the “**credit-to-GDP gap**”. This indicator measures the difference between financing received by the non-financial private sector as a percentage of GDP and its long-run equilibrium trend, estimated using statistical procedures.<sup>4</sup> Positive credit-to-GDP gap values would indicate an expansionary phase of the financial cycle, since the relative volume of credit stands above its equilibrium level. Consequently, the possibility of activating, or increasing, the CCyB might be considered. Negative values would denote a contractionary phase in the financial cycle, whereby the CCyB should be deactivated.

<sup>4</sup> Along with purely statistical procedures, the estimation of the long-term equilibrium level of the non-financial private sector’s long-term financing that the calculation of these indicators requires can be done using models that include the determinants of the demand for credit.

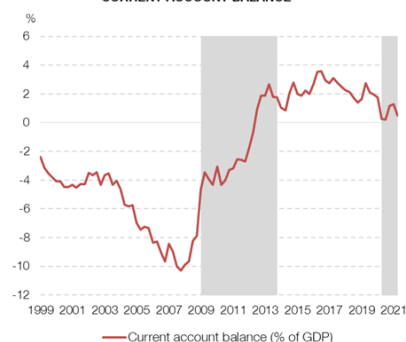
## INDICATORS: PRICE DISEQUILIBRIUM INDICATORS IN THE REAL ESTATE SECTOR AND CURRENT ACCOUNT BALANCE

BANCO DE ESPAÑA  
EuroSistema

PRICE DISEQUILIBRIUM INDICATORS IN THE REAL ESTATE SECTOR (a)



CURRENT ACCOUNT BALANCE



Sources: Banco de España, INE and own calculations.

(a) The ranges show minimum and maximum values for a set of disequilibrium indicators on price developments in the real estate sector relative to their long-term trends.

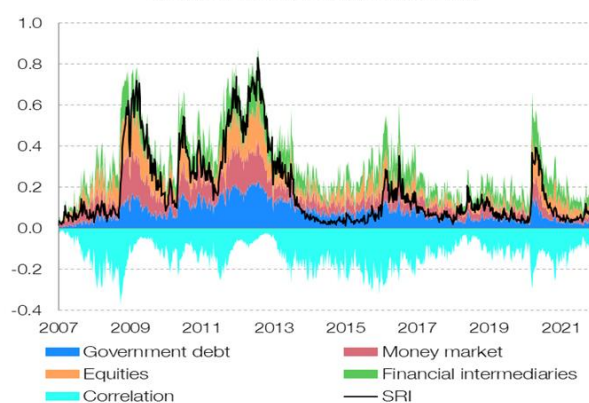
Note: The shaded areas show periods of systemic crises.

In any event, the CCyB decision is not an automatic rule based on a single indicator, as the regulations stress that other complementary indicators need to be taken into account. Specifically, the Banco de España also tracks **imbalances in house prices**, as the real estate sector has traditionally been a source of systemic risk, and **the current account balance**,<sup>5</sup> among others.

## INDICATORS: SYSTEMIC RISK INDICATOR

BANCO DE ESPAÑA  
EuroSistema

SYSTEMIC RISK INDICATOR (SRI) (a)

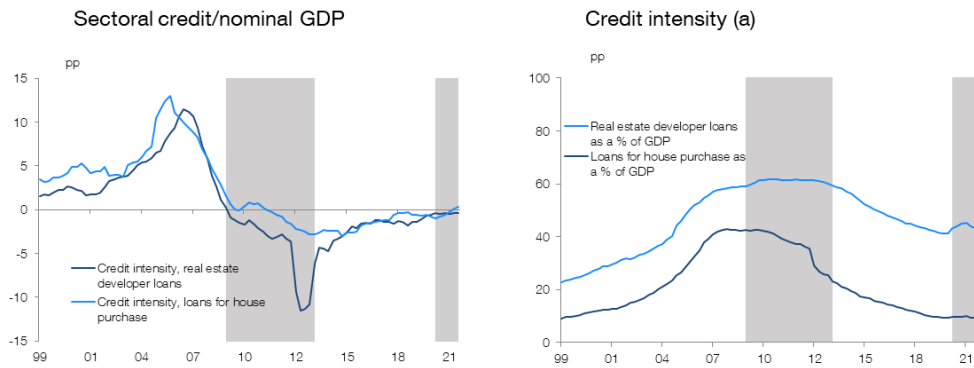


Sources: Banco de España, INE, Datastream and own calculations.

(a) For a detailed explanation of this indicator, see Box 1.1 of the May 2013 Financial Stability Report.

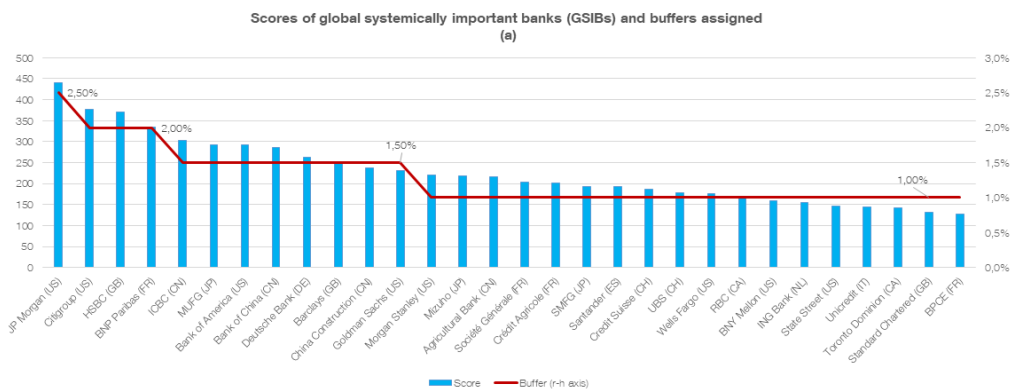
It is also useful to calculate and track **specific indicators of systemic stress in the financial markets**, which enable us to identify, in particular, the initial stages of systemic crises, and to make use of the **output gap**, i.e. the difference between actual and potential economic activity.

<sup>5</sup> This latter variable reflects how in small, open economies, when the financial cycle is in expansion, a portion of this financing is usually obtained abroad, consequently materialising in a current account deficit.



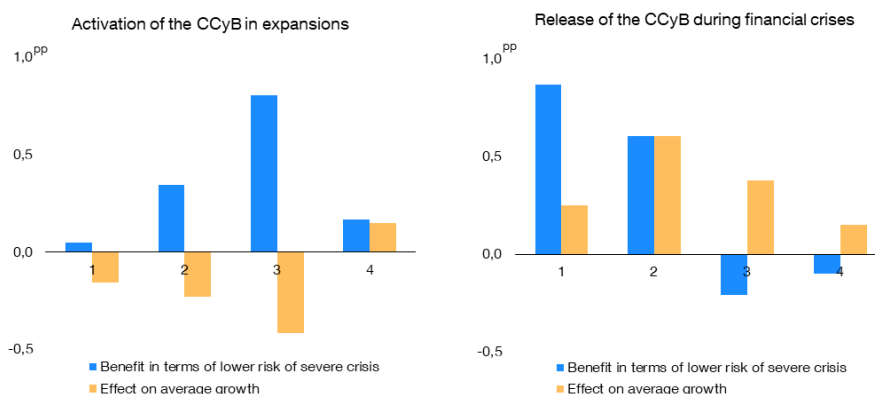
Sources: Banco de España and INE.  
(a) Credit intensity is calculated as the annual change in aggregate sectoral lending (numerator) divided by cumulative GDP for the same period (denominator).  
Note: The shaded areas show periods of systemic crises.

Furthermore, the Banco de España also regularly tracks **sectoral indicators**. For example, one of the indicators used aims to measure credit intensity, obtained as the ratio between the annual change in sectoral credit and the gross value added of that same sector.



Source: FSB.  
(a) Scores are the aggregation of various indicators reflecting different aspects relating to the systemic nature of a bank. These are grouped into five categories: size, interconnections with the rest of the financial system, cross-border activity, complexity and substitutability of the services the bank offers. Each category has a weight of 20% in the final score and all indicators receive the same weighting within the category to which they belong.

Lastly, as to the cross-sectional dimension of systemic risk, the key indicators seek to measure the relative size of a given bank, its centrality in the national banking network, its interconnectedness to the rest of the financial system and to other countries' financial systems, and the complexity of the activities it pursues, etc. Indeed, a composite indicator of all these metrics is what enables us to construct systemic significance scores that are used as a reference to determine the calibration of the percentage of the capital buffer required for each systemic institution.



Source: Own calculations drawing on ECB and BIS data.

Note: The bars depict the impact in percentage points on the 5th (blue bars) and 50th (yellow bars) percentiles of the conditional distribution of GDP growth. The analysis is conducted for a sample of the 28 EU Member States. The capital measures (provisioning and capital requirements, including the related buffers) are captured through a cumulative index that discriminates between activation or tightening and release or easing of measures (for more details, see J. E. Galán (2020), "The benefits are at the tail: Uncovering the impact of macroprudential policy on growth-at-risk", *Journal of Financial Stability*, in press).

## The effectiveness of macroprudential tools

Experience of the use of macroprudential tools remains scant. In any event, the multi-dimensional nature of such policy makes it difficult to assess. Moreover, the cost-benefit analysis of the measures faces the challenge of comparing different time horizons: the costs of activating the tools are immediate (e.g. reducing credit growth and, very probably as a result, GDP), but the benefits arise in the long term and are very difficult to verify (e.g. averting a systemic crisis).

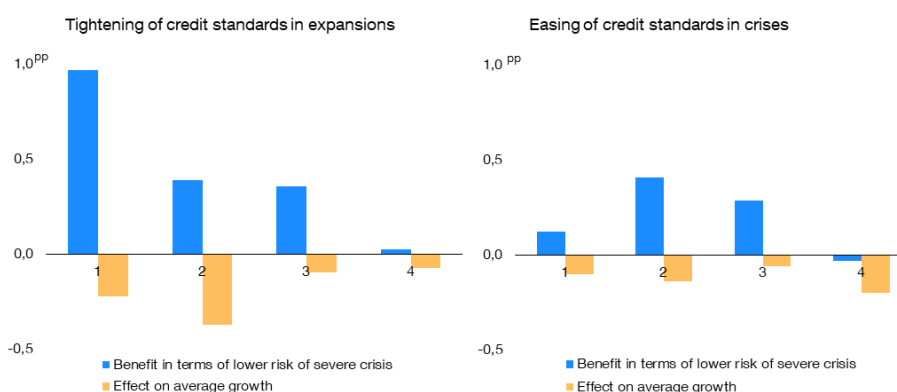
In practice, the effectiveness of the macroprudential tools has been tested in many ways; e.g. by analysing their impact on systemic risk indicators (developments in credit, house prices, banks' interconnectedness, the composition of their credit portfolio, etc.).

Their effectiveness has also been studied by assessing whether they have helped reduce the likelihood of a systemic crisis, the bankruptcy of a bank or group of banks and debtor default.

More recently, the concept of growth-at-risk has been developed (Adrian, Boyarchenko and Giannone, 2019), which serves to study the impact of the measures on the distribution of expected GDP growth at different horizons. Thus, the impact is analysed not only under the baseline scenario (the most likely), but also in a hypothetical systemic crisis.

We can conclude from the results (Galán, 2020) that the activation of the CCyB in financial cycle upturns gives rise to an easing in credit and GDP growth under the baseline scenario, but, above all, it significantly reduces the severity of the decline in GDP in an economic crisis. Moreover, the likelihood of crises occurring also diminishes. These effects occur with an average lag of around two years.

The release of the CCyB in crisis periods would mitigate the adverse effects on economic growth, both under the baseline scenario and at the extreme percentile. Furthermore, its impact would be immediate.



Source: Own calculations drawing on ECB and BIS data.

Note: The bars depict the impact in percentage points on the 5th (blue bars) and 50th (yellow bars) percentiles of the conditional distribution of GDP growth. The analysis is conducted for a sample of the 28 EU Member States. The borrower-based measures (limits on credit standards include limits on the LTV ratio, on the DSTI ratio and on loan maturities, among others) are captured by means of a cumulative index that discriminates between activation or tightening and release or easing of measures (for more details, see J. E. Galán (2020), "The benefits are at the tail: Uncovering the impact of macroprudential policy on growth-at-risk", *Journal of Financial Stability*, in press).

In the case of the tools that fall on borrowers, their activation in financial cycle upturns would have similar effects to the CCyB. The main difference is that their effects are more immediate, occurring over a horizon of around one year.

The differing time horizons in terms of the impact of the different instruments might suggest an optimal order for their activation during periods of rising systemic risk: the tools that increase banks' capital requirements should be activated first and, if the risks do not abate, measures falling on borrowers (restricting lending standards) should then be activated. However, experience shows that reality is far more complex and that flexibility of action must be the norm. For example, if a significant easing of lending standards is identified during the initial stages of a build-up in systemic risk, it may be worth activating the tools that fall on borrowers first. The need to activate capital buffers will depend on how much absorption capacity should be ensured in the face of the potential materialisation of the perceived systemic risk.

Lastly, I should like to mention that the evidence also suggests that releasing these instruments that fall on borrowers during crisis periods has no significant impact on expectations of GDP growth or its distribution, possibly because typically it is the banks themselves that restrict such lending standards in downswings.

### Macroprudential policy during the COVID-19 crisis

The outbreak of the economic crisis stemming from the COVID-19 pandemic posed an unprecedented challenge, and it did so too from the macroprudential standpoint. As I have attempted to convey in this speech, macroprudential policy was conceived to tackle risks that arise endogenously in the financial system and build up gradually over time. However, the pandemic has prompted a crisis of a different nature, caused by a risk factor exogenous to the financial system. In any event, it has had a sudden and profound macro-financial

impact. Against this background, the role of macroprudential policy in countering these effects is limited; it is other economic policies that are best suited to combat them.

In any event, at the onset of the pandemic, in parallel to the action taken by the monetary and fiscal authorities, numerous announcements of measures ensued at notable speed from the macroprudential authorities. The main instrument subject to these measures was the CCyB, which, practically across the board, was drawn down (i.e. returned to its initial level of 0%) in those countries in which it had previously been activated. The aim was to encourage banks to maintain the flow of credit to the economy.

In Spain's case, the CCyB rate was 0% before the onset of the pandemic, since no signs of an accumulation of systemic risk had been detected. In any event, the Banco de España has indicated that it would not activate this instrument for a long period of time, at least not until the main effects of the crisis have been absorbed. This approach sought to eliminate banks' potential uncertainty as to when to build up capital buffers, which might discourage their provision of credit to the private sector.

We can draw some lessons from our experience of the crisis on the usefulness of certain indicators used for the activation of macroprudential tools. This is the case of the credit-to-GDP gap. Following the outbreak of the pandemic, this indicator increased significantly and has held at values of over 2 percentage points (pp), which is the warning threshold as of which the Basel framework recommends activating the CCyB. However, it should be borne in mind that this increase in the credit-to-GDP gap largely owed to the very stimulus policies applied by the authorities and, above all, to the adverse impact on GDP of the COVID-19 shock; that is to say, it was not driven by the emergence of imbalances in the financial system itself, which could be countered by activating the CCyB.

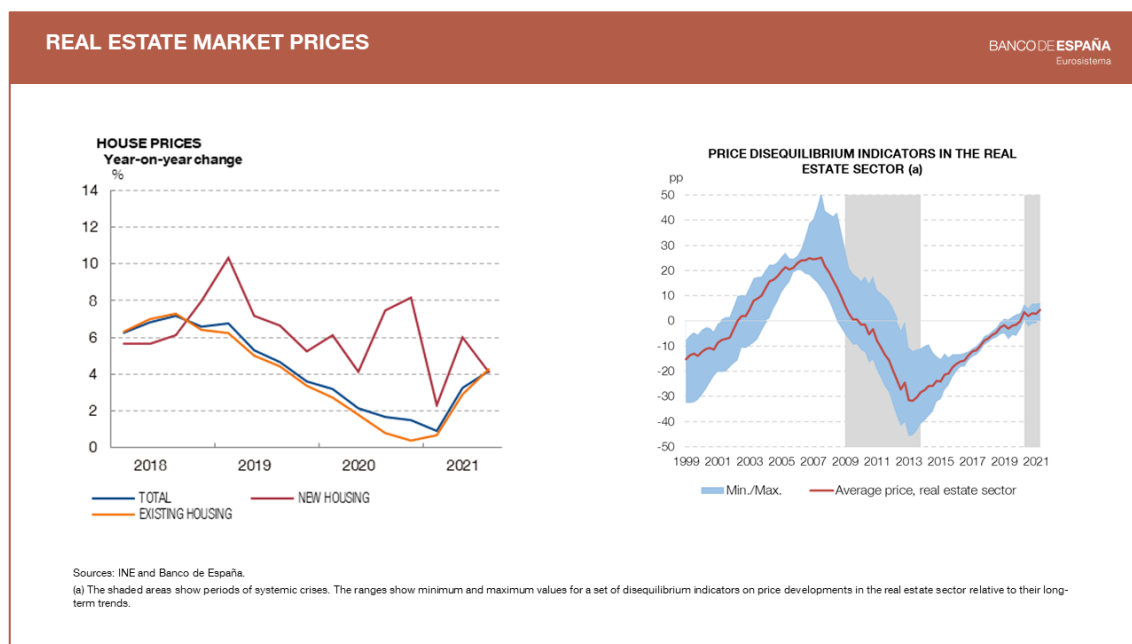
The remaining indicators served to monitor developments, such as those in systemic tensions in financial markets, which rose very sharply in the early months of the pandemic but subsequently improved. The output gap stood at very negative levels from the onset of the crisis; accordingly, given that the objective of macroprudential policy is to act countercyclically, it did not seem reasonable to activate the macroprudential instruments, despite the credit-to-GDP gap standing above 2 pp.

Subsequently, the recovery in economic activity has helped correct part of the imbalances in the credit-to-GDP gap and the output gap that arose during the pandemic. The information available for 2021 shows a significant correction in the credit-to-GDP. This change in trend owes chiefly to the rebound in GDP growth. And this rebound has also contributed to the gradual narrowing of the output gap, although it remains at significantly negative values and far from pre-pandemic levels.

At the European and global level, various coordinated decisions have been taken in this area of macroprudential policy. One notable example was the introduction of recommendations for restrictions on the distribution of dividends by banks and on variable remuneration. Their uniform application to all banks, by financial system sector and country, conferred a significant macroprudential dimension on this action, by contributing to preserve the capital of banks as a whole. Indeed, various studies suggest that the limitations on dividend distribution have had a significant positive impact on new lending and on solvency ratios.

More recently, macroprudential policy has gradually been adjusted to the improving economic developments. For instance, this recovery, together with the reassuring outcome of the EBA and SSM stress tests, led the ECB to decide in July not to extend beyond 30 September 2021 its recommendation to limit dividend distribution.<sup>6</sup>

In the same vein, some European countries are raising the CCyB rate, since they are already in a marked upward phase of their credit cycle. In Spain's case, however, the Banco de España has maintained the CCyB rate at 0% and does not envisage increasing it until economic activity has returned to its potential level or there are signs of imbalances in the credit cycle.



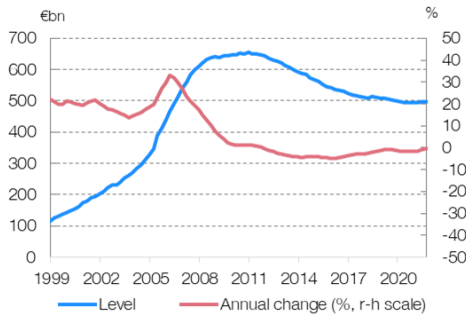
The housing market has been markedly buoyant in several European countries; indeed, this lies behind the recent adoption of various macroprudential measures in those countries. However, in Spain no such build-up of risks in the real estate sector has yet been observed. Nonetheless, close monitoring will be needed given that they are becoming widespread across many other European countries, driven by factors common to all of them, such as particularly loose financing conditions at the global level.

For instance, house purchases were notably buoyant in 2021,<sup>7</sup> while housing supply remained comparatively more stable, as evidenced by new housing approvals. This situation has been conducive to price growth over the last year, leading current real estate asset valuations to stand slightly above, but still very close to, equilibrium levels.

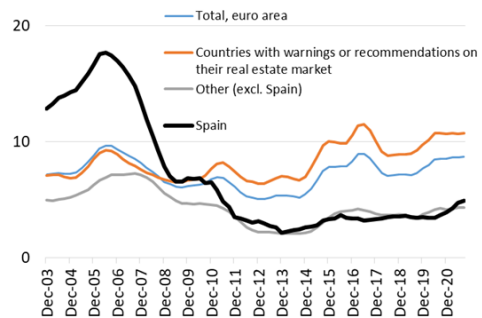
<sup>6</sup> In coordination with other national authorities, the Banco de España also agreed not to extend its recommendation for less significant institutions in Spain, which also expired on 30 September. At the same time, the ESRB decided that its dividend recommendation affecting various sectors of the EU financial system would expire as of 1 October. In any event, all these authorities have publicly reiterated the need to remain prudent in decisions on dividend distribution, equity buybacks and remuneration policies, paying particular attention to business model sustainability.

<sup>7</sup> Up 10.3% in the first three quarters of 2021 on the same period in 2019.

LOANS FOR HOUSE PURCHASE (a)



FLOW OF NEW LOANS (b)



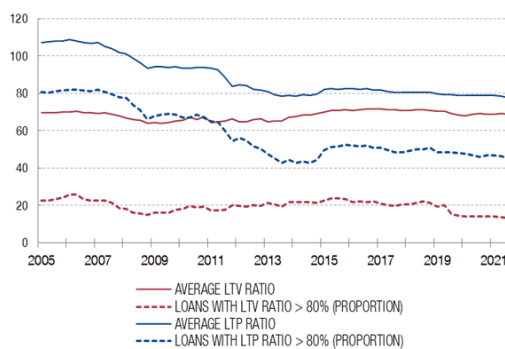
Sources: Banco de España, SDW (ECB) and Eurostat.

(a) The chart considers data on the balance of loans for house purchase in Spain.

(b) Annual flow of new loans as a percentage of GDP. The warnings and recommendations indicated in the legend were issued by the ESRB and in the euro area affect Germany, Austria, Belgium, Slovakia, Finland, France, Luxembourg and the Netherlands, together with other EU Member States.

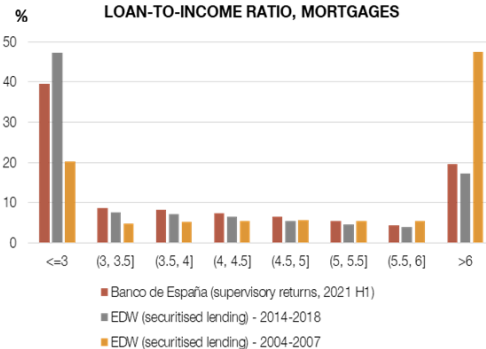
New lending for new house purchase also increased in 2021.<sup>8</sup> However, this pick-up has not yet resulted in growth in the stock of housing loans, as the rate of repayment has also increased sharply. Likewise, a European comparison shows that the flow of new lending in Spain, measured in relative terms as a percentage of GDP, is still a long way off the values observed in those European countries that have recently been issued warnings or recommendations owing to imbalances in their real estate markets.

LOAN-TO-VALUE AND LOAN-TO-PRICE RATIOS



Sources: Banco de España, Colegio de Registradores and European DataWarehouse (EDW).

LOAN-TO-INCOME RATIO, MORTGAGES

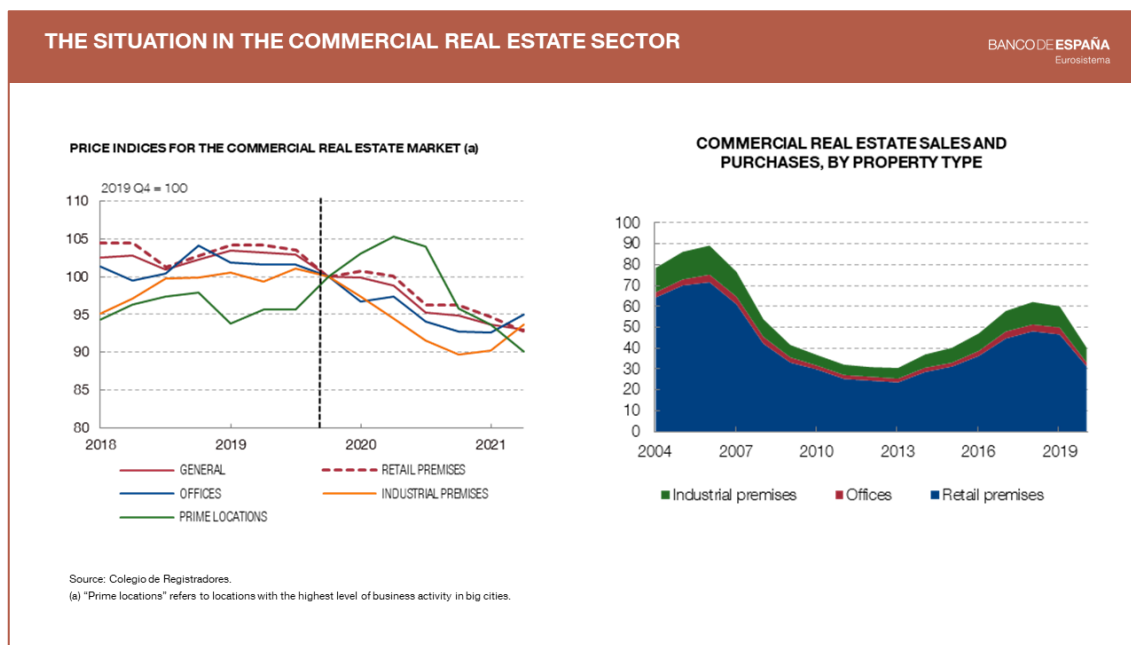


Likewise, no easing of lending standards has been observed for mortgage loans. Specifically, the loan-to-value and loan-to-price ratios (which measure the borrower's leverage when a loan is originated) for new mortgage loans have held at relatively stable

<sup>8</sup> In the first nine months of the year the volume of new transactions grew 21.5% as compared with the same period in 2019.



levels in recent quarters. Nor does the proportion of borrowers' income taken up by mortgage payment obligations indicate increasing risk in the mortgages currently being extended, particularly when comparing its distribution with that observed prior to the global financial crisis. Only a narrowing of spreads for fixed-rate real estate loans is evident; given the growing prominence of these loans in recent years, this development will have to be monitored over the coming months to assess its scope.



Lastly, commercial real estate experienced a marked correction during the initial quarters of the pandemic, with significant price declines across all key segments (offices, industrial properties, retail premises and prime or high value real estate). The worse relative performance of such real estate compared with residential properties may be in response to particular aspects of the crisis, such as the restrictions on movement, which would have had an impact on demand for such establishments (International Monetary Fund, 2021), along with their greater sensitivity to cycle fluctuations (European Systemic Risk Board, 2015). That said, in the most recent period the correction in key activity indicators, such as prices and transaction numbers, seems to have eased. In any event, there are doubts as to the long-term performance of this segment, given that the pandemic may have accentuated phenomena such as the use of e-commerce and remote working, which could permanently affect demand for these properties.

### The future of macroprudential policy

Allow me to conclude with some brief thoughts on the future of macroprudential policy. In my view, there are two aspects on which we should focus in the coming years.

First, the current crisis should be used to draw lessons about macroprudential policy. A much discussed aspect of these lessons relates to the use of capital buffers. The empirical evidence shows that it is precisely during crises when the CCyB and, generally, the instruments that increase capital requirements acquire their full potential via the effects of their release on credit and economic growth (see Broto and Galán, 2021).

Given this evidence, it is important to reflect on how we can increase the macroprudential space available through the CCyB, and thereby extend the capacity to mitigate the effects of future crises, both those originating in macro-financial disequilibria that are endogenous to the economy and those arising from exogenous factors. For instance, some national authorities, such as those in the United Kingdom, now require that a CCyB be built up even in the absence of systemic imbalance warnings. Under this approach, it would suffice for the economy not to be in a recessionary environment to demand a certain positive level of CCyB that can be released when any shock leading GDP to stand below its potential should materialise. The events surrounding COVID-19, whose root cause is completely removed from the financial system, have demonstrated the advantages of this approach.<sup>9</sup>

Second, in the coming years we can expect significant headway in the development of macroprudential policy for the so-called “non-bank segment” of the financial system, i.e. in the area of securities markets and insurance companies. Macroprudential policy for the banking sector cannot suffice to contain the systemic risks threatening financial stability if it omits the other financial sectors. Indeed, the introduction of new requirements in one financial sub-sector may inevitably induce a shift in or migration of risks to other sub-sectors of the financial system, because of the latter being subject to looser regulation. It is thus vital to have a macroprudential framework that can uniformly reach all segments and that is logically adapted to the prudential regulatory framework specific to those sectors. Against this background, the discussions taking place at the global and EU level will be key to specifying and, therefore, completing the macroprudential policy of the financial system in the future.

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<sup>9</sup> This discussion has a bearing on other matters, such as the optimum level and composition of capital: structural requirements versus cyclical/releasable requirements, microprudential requirements versus macroprudential requirements, and discretionality versus rules. It is, therefore, a complex discussion requiring detailed analyses well-grounded in empirical and theoretical evidence.

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