Box 3.2

EURO AREA HOUSING MARKETS. MAIN INDICATORS, COMMON FACTORS AND MACROPRUDENTIAL MEASURES ADOPTED TO ADDRESS SYSTEMIC IMBALANCES

In the years leading up to the COVID-19 pandemic, systemic imbalances in the residential real estate markets of several European countries were on the rise. In 2016 the European Systemic Risk Board (ESRB) responded to this situation by issuing warnings to the countries concerned. In 2019 the ESRB issued warnings to other countries and specific recommendations to those which had previously received warnings.[1] Since then, the imbalances in these countries' residential real estate markets have not corrected, and in some cases they have increased, despite the outbreak of COVID-19. As a result, at end-2021 the ESRB once again revised and updated its recommendations for, and warnings to, countries with residential real estate market imbalances.[2] It should be noted that Spain has not received any warnings or recommendations from the ESRB.

This box analyses the situation in the euro area housing markets, grouping the countries on the basis of the vulnerabilities in the residential real estate sector. Specifically, two groups of countries are considered: those that have received a warning or recommendation from the ESRB[3] and those that have not. The metrics analysed are price developments, mortgage lending and household debt linked to the residential real estate market, which the ESRB also evaluates as part of its vulnerability assessment. A principal component analysis was also conducted to assess the possible presence of common factors conditioning euro area house price developments. Logically, these common factors might also affect the Spanish residential real estate market, but, for the time being, they are being countered by specific factors.

Despite the sharp economic contraction triggered by the pandemic, house prices continued to grow in the euro area in 2020, doing so even more vigorously in 2021 (see Chart 1). While the upward trend in house prices is somewhat steeper in the set of countries that received warnings and recommendations, in 2021 H2 the pace of the price growth quickened in the other economies, including Spain.

Mortgage lending, measured as the annual flow of new mortgages as a percentage of GDP, also rose slightly compared with the years immediately preceding the pandemic for the two groups of countries analysed (see Chart 2). Even so, the countries with residential real estate market imbalances show new mortgage lending flows that double those of the rest of the euro area, including Spain. New mortgage loan growth in Spain was particularly significant in 2021, with year-on-year credit growth rates exceeding 40% in the final stretch of the year. However, due to its low starting level, the ratio of the annual flow of new lending to GDP remained in line with that of the other euro area countries in which the ESRB had not found systemic residential real estate imbalances.

Turning to total mortgage debt, most countries have seen slight increases in the ratio of total mortgage lending to GDP since the onset of the pandemic (see Chart 3). Among them, a distinction should be drawn between the countries whose ratio has risen as a result of the accumulation of debt, and those where the increase is mainly due to the decline in GDP triggered by the pandemic, as is Spain's case.[4] However, higher indebtedness is a vulnerability in both cases, as it may hinder mortgage repayments in the event of a negative shock, particularly in the countries which already had a high level of debt before the pandemic broke.

The above-mentioned descriptive evidence suggests that, while there are marked differences between the countries with greater vulnerabilities and the others, euro area housing market developments are somewhat synchronised. To dive deeper into this aspect, a principal component analysis was conducted on the year-on-year rates of change of house prices in each economy from 2011 Q1 to 2021 Q3.[5] The aim of this analysis was to identify whether a few factors or components are capable of explaining a significant portion of the price variability, which would suggest that the behaviour of house prices is subject to

1 See the ESRB's 2016 and 2019 reports on vulnerabilities in the EU residential real estate sector.

2 Following its 2021 review, the ESRB sent recommendations to Germany and Austria for the first time. It also sent warnings to Bulgaria, Croatia, Hungary, Lichtenstein and Slovakia, as the ESRB assessment covers all European Economic Area countries.

3 The euro area countries that have received recommendations or warnings in either the current or previous ESRB vulnerability assessments are Austria, Belgium, Finland, France, Germany, Luxembourg, the Netherlands and Slovakia.

4 In 2021 Q4 (latest available figure) Spain's nominal GDP was 3.2% below its 2019 level, and outstanding mortgage debt also fell over the same period (0.1%).

5 This method means the annual changes in prices can be broken down into several uncorrelated indicators or components, ranked by their relative share of, or importance to, the variance of the data.

Box 3.2

EURO AREA HOUSING MARKETS. MAIN INDICATORS, COMMON FACTORS AND MACROPRUDENTIAL MEASURES ADOPTED TO ADDRESS SYSTEMIC IMBALANCES (cont'd)

Chart 1
HOUSE PRICES. YEAR-ON-YEAR RATE OF CHANGE (a)

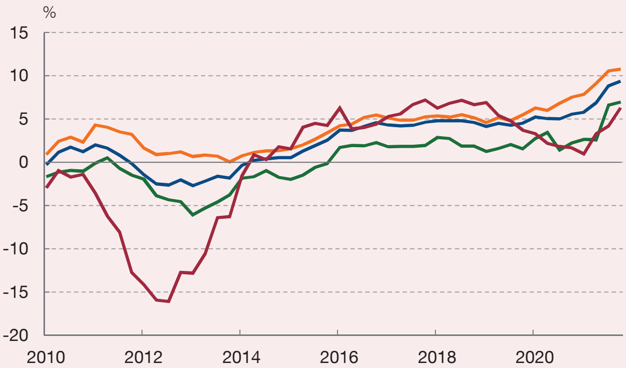


Chart 2
NEW MORTGAGE LENDING/GDP (a) (b)

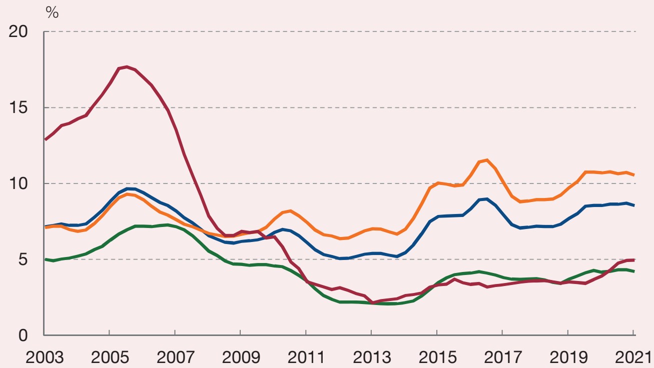


Chart 3
OUTSTANDING MORTGAGE LOANS/GDP (2021 VS 2019)

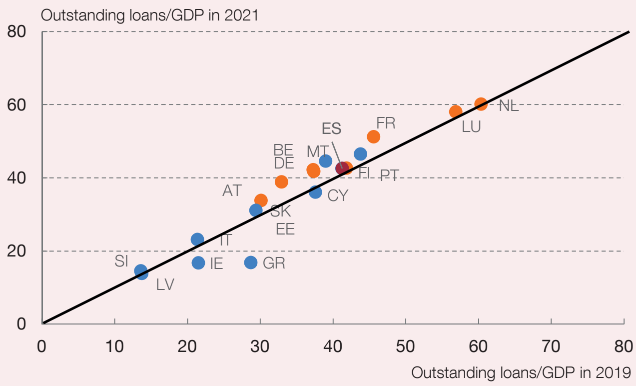
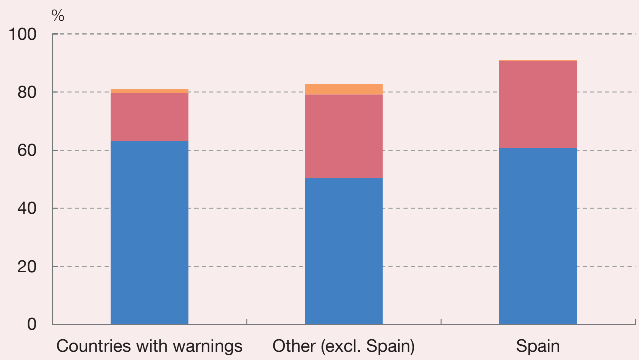


Chart 4
SHARE OF THE FIRST THREE PRINCIPAL COMPONENTS IN THE CHANGES IN HOUSE PRICES IN THE PERIOD 2011-2021 (c)



SOURCES: Banco de España, Eurostat and Statistical Data Warehouse (ECB).

a The weight of the countries in each group is determined by each country's GDP.
b Each group's ratio of new mortgage lending to GDP is calculated as the ratio of new mortgage lending for the set of countries comprising each group (cumulative 12-month figure) to GDP at current prices for that group of countries (cumulative 12-month figure).
c The chart depicts the proportion of the variance in the year-on-year changes in house prices between 2011 Q1 and 2021 Q3 that is attributable to the first three principal components. Aggregate results for each group of countries, weighted by each country's GDP.

common conditioning factors. In principle, the regulation of the residential real estate market or the persisting effects of the global financial crisis are unlikely to be the determinants of this common factor, given their cross-country heterogeneity. By contrast, there is greater synchronicity in the cyclical position and, above all, the loose financing conditions in a low interest rate environment.

The principal component analysis shows that the first common component is responsible for 50%-60% of the changes in house prices. This first common factor becomes more important when explaining house price developments in the countries that have received warnings. However, this first component also explains a very high percentage of the variability of house prices in Spain (around 60%, a higher proportion than the other euro area countries with smaller vulnerabilities). Therefore, the presence of a common cycle is more pronounced in the economies with greater imbalances, but it is also present in the other economies and, particularly, in Spain. The second component lies behind 15%-30% of the changes and is

Box 3.2

EURO AREA HOUSING MARKETS. MAIN INDICATORS, COMMON FACTORS AND MACROPRUDENTIAL MEASURES ADOPTED TO ADDRESS SYSTEMIC IMBALANCES (cont'd)

Table 1
MACROPRUDENTIAL MEASURES ADOPTED BY EURO AREA COUNTRIES THAT HAVE RECEIVED WARNINGS OR RECOMMENDATIONS FROM THE ESRB (a)

Country	Capital measures (b)	Borrower-based measures (c)	Other measures
Germany	— CCyB: announcement in January 2022 of its reactivation at 0.75% (effective in February 2023). — SRB: announcement in January 2022 of the establishment a sectoral systemic risk buffer of 2% for loans secured by residential real estate (effective in February 2023).		Enactment of legislation enabling the periodic gathering of information on real estate loan terms and conditions. Under the General Administrative Act, which was passed in September 2021, the first data are expected to be received in 2023
Austria		Supervisory recommendations/guidance on limits on the LTV ratio (80%), the DSTI ratio (30%-40%) and loan maturities (35 years), effective since September 2018	Setting of minimum risk management standards for foreign currency-denominated lending for which "repayment vehicles" are used. Recasting of prior legislation in force since June 2017
Belgium	5 pp risk weight add-on for residential and non-residential mortgages at IRB banks. Additionally, the weights are increased on the basis of the mortgage portfolio's risk profile	Supervisory guidance/recommendations in force since January 2020 relating to LTV ratio limits (80% for buy-to-let loans, 90% for first-time homebuyer mortgages, with exceptions). This measure is complemented by limits on the DSTI and DTI ratios	
Slovakia	CCyB: announcement in January 2021 of an increase to 1% (effective from 1 February 2022)	Limits on the LTV, DSTI and DTI ratios and on loan maturities, among others	Measures aimed at diversifying the pool of intermediaries in the mortgage market and at not creating pressure to loosen credit standards
Finland		Measures that began in 2010 and that have gradually been completed and extended, including limits on the loan-to-collateral ratio for residential mortgage loans other than those taken for main residence purchases. In addition, a recommendation on stress tests to assess borrowers' debt service capacity	
France	CCyB: announcement in March 2022 of its reactivation at 0.5% (effective in April 2023).	Measures related to the DSTI ratio (35%) and maturity (25 years) of new mortgage loans, in force from 2019 (amended in 2021, increasing the initially established limits)	
Luxembourg	— The CCyB rate was raised to 0.5% in December 2019, effective from January 2021, and it has not been lowered during the pandemic — Since July 2013, IRB banks must ensure that their regulatory capital adequacy is subject to a stress test. The stress test on the retail exposures secured by residential property requires an increase of a minimum 50% of the PDs and a minimum 20% of the LGDs — In force since January 2017, minimum risk weight floor of 15% for IRB banks, applied to exposures secured by residential property located in Luxembourg	Measures related to limits on the LTV ratio that vary by loan type (first-house purchases and other purposes)	
Netherlands	— Floor for calculating risk weights applicable to the mortgage portfolios of IRB banks. Measure in force since January 2022	Measure related to LTV limits (100%) in force since 2018; in tandem, legislation on repayment schedules entitling borrowers to tax deductions for interest on mortgage loans (since 2013)	

SOURCES: ESRB and devised by authors.

a Measures that are in force implemented by the countries are selected. Measures not intended to contain real estate market risks are excluded.
b CCyB = countercyclical capital buffer and SRB = systemic risk buffer.
c LTV = loan-to-value, DSTI = debt-service-to-income and DTI = debt-to-income.

more important in Spain and the other euro area countries that have not received warnings than in those countries in which the ESRB has detected residential real estate market vulnerabilities (see Chart 4). This component generates a distinct common dynamic for the countries that have not received warnings. The subsequent components do not explain a material fraction of the total changes.

Recent Spanish residential real estate market developments do not, for the time being, reflect signs of pronounced imbalances (see also the section on real estate in Chapter 1); however, the still sizeable relative share of Spanish banks' exposures linked to the residential real estate sector, and the existence of shared factors explaining house price developments in the euro area, signal the need to closely monitor this market in Spain. As stated in Chapter 1 of this Financial Stability Report, there are no signs of loose credit standards being applied, but the possibility of some transmission of the effects of residential real estate market imbalances within the euro area is a significant source of risk to the Spanish banking sector, and the availability of sufficient loss-absorbing buffers must be carefully assessed.

The countries that have received warnings have adopted a series of measures to reduce residential real estate market imbalances (see Table 1). Some have adopted sectoral capital measures to strengthen banks' resilience based on their residential real estate market exposures. In some cases (Germany and Slovakia), they have decided to activate the countercyclical capital buffer, which is a further capital requirement applicable to all credit exposures, as they have identified that the credit cycle imbalances are not confined to residential real estate market exposures. Several countries have also tightened credit standards to limit the credit risk from the flow of new mortgage lending.

Despite these measures, residential real estate market imbalances have continued to grow in some of these economies. This could be due to several reasons. First, the measures chosen by these countries could be suitable for addressing the risks, but insufficient in terms of their strength (determined by their calibration). Second, certain countries have implemented supervisory guidance or recommendations on loan-to-value ratio limits, rather than binding measures, due, among other reasons, to the limitations of their national legal framework. However, it should be borne in mind that macroprudential policy measures do not typically have immediate effects, yielding the desired effects over time, particularly in the case of capital buffers. Nevertheless, this should not impede the tightening of existing measures, or the implementation of new ones, in the face of growing vulnerabilities.