

FINANCIAL STABILITY: MAIN VULNERABILITIES AND RISKS

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The improved near-term global economic growth outlook and the decline in the inflation rate, especially in the energy component, have helped moderate some of the risks identified in the last *Financial Stability Report* (FSR). However, the geopolitical tensions linked to the war in Ukraine continue to generate extraordinary uncertainty, heightening the divided world order and posing downside risks to the growth outlook. In addition, high underlying inflation increases the risk that price rises may be more persistent and that financial conditions may tighten further (see Figure 1), which would in turn drive up household and firm vulnerability. More recently, the banking sector turmoil in the United States and Switzerland constitutes a new area of uncertainty.

Spain saw strong economic growth in 2022, narrowing the gap with the pre-pandemic production levels. But GDP slowed significantly in the second half of the year, in keeping with the decline in economic momentum worldwide.

The moderation in energy prices on international markets reversed the cost increases that emerged in the wake of the Russian invasion of Ukraine. Thus, current inflation moderated and the inflation outlook was revised down, while the likelihood of recession in the coming quarters as a result of energy and critical commodity supply disruptions declined. But underlying inflation remains high, increasing the risks of second-round effects emerging. Moreover, there is great uncertainty surrounding the future course of energy prices, which could head up again after OPEC+ announced oil production cuts. Meanwhile, the global turmoil observed in the banking sector in March 2023 increases the risk of lower growth.

Spanish banks' profitability increased in 2022 (excluding the extraordinary items recorded in 2021), so that it exceeded their cost of equity. Moreover, the credit quality of bank balance sheets improved overall, with further declines in both non-performing and Stage 2 loans compared with previous years. All the foregoing, influenced by a macro-financial environment in which – at the same time as interest rates were raised, driving up margins – economic activity was resilient, with just a partial slowdown, and risk premia remained contained, thus limiting the negative effects on impairment provisions and financing costs.

Since March 2023, the serious financial problems seen at Silicon Valley Bank (SVB), other medium-sized US banks and Credit Suisse have driven down bank stock prices. This increases the risk of higher financing costs and liquidity stress for the banking sector worldwide, including Spanish banks, and may have a negative impact on the favourable financial position with which they started out in 2023. Yet, these

Figure 1

FINANCIAL STABILITY: MAIN VULNERABILITIES AND RISKS (a) (b)



SOURCE: Banco de España.

- a** In this report, the **vulnerabilities** are defined as economic and financial conditions that increase the impact or probability of materialisation of **risks to financial stability**, which in turn are identified as adverse changes in economic and financial conditions, or in the physical or geopolitical environment, with an uncertain probability of occurrence, which hamper or impede financial intermediation, with negative consequences for real economic activity.
- b** The risks and vulnerabilities shown here are measured using three colours: yellow (low level), orange (medium level) and red (high level). The arrows denote the change in the risks and vulnerabilities since the last FSR.

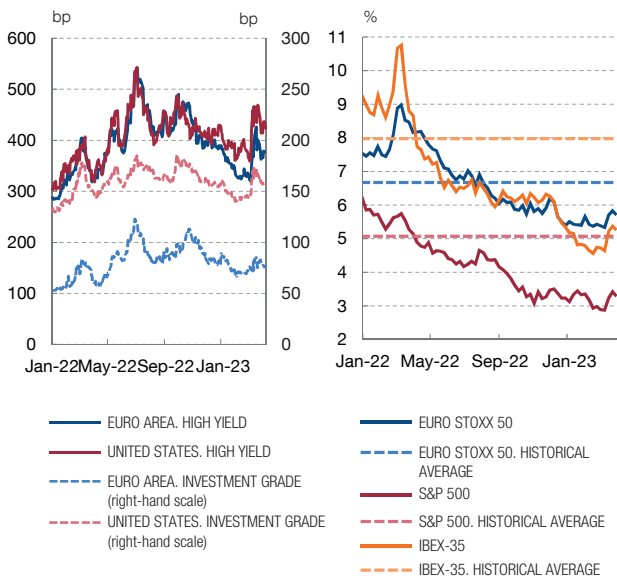
risks are mitigated by various characteristics of the Spanish banking sector: the lack of direct systemically important exposures to SVB and Credit Suisse; the business model differences vis-à-vis these banks, especially in terms of depositor diversification, with a majority of retail depositors in Spain, and broad coverage of the deposit guarantee scheme; and a high liquidity position. Box 1 analyses in greater depth the particular circumstances of the SVB and Credit Suisse crises, their impact on bank risks and the position of Spanish and other European banks in the face of these risks.

In any event, the materialisation of risks to economic growth and inflation could have a further adverse financial impact on the banking sector, again through financing costs, but also in terms of credit quality deterioration. In consequence, banks should follow a prudent provision and capital planning policy that will allow them to use the higher profits generated in the recent period to boost sector resilience.

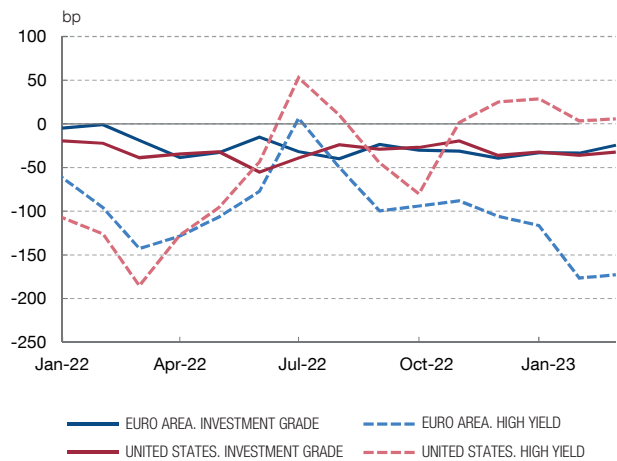
The main risks¹ to the stability of the Spanish financial system are discussed in greater detail below:

¹ Risks to financial stability are defined as adverse changes in economic and financial conditions, or in the physical or geopolitical environment, with an uncertain probability of occurrence, which hamper or impede financial intermediation, with negative consequences for real economic activity.

1 SPREADS OF NFCs' BONDS AGAINST THE SWAP CURVE (LEFT-HAND PANEL) (a) AND EQUITY RISK PREMIUM (RIGHT-HAND PANEL) (b)



2 DEVIATIONS OF THE CORPORATE CREDIT RISK PREMIUM FROM CERTAIN FUNDAMENTALS (c)



SOURCES: Refinitiv Datastream, Bloomberg Data License and Banco de España.

- a High yield: ICE Bank of America Merrill Lynch Non-Financial High Yield Index. Investment grade: ICE Bank of America Merrill Lynch Non-Financial Index.
- b The stock market risk premium is calculated using a two-stage dividend discount model. For more details, see R. J. Fuller and C.C. Hsia. (1984). "A simplified common stock valuation model". *Financial Analysts Journal*. The historical averages are calculated for the period 2006-2023.
- c The difference between the corporate credit risk premium observed and that predicted by a corporate bond valuation model based on four factors: expected enterprise value (EV), uncertainty over expected EV, corporate sector leverage and investor risk aversion. For more details, see J. Gálvez and I. Roibás. "Asset price misalignments: an empirical analysis". Working Paper - Banco de España (forthcoming).

R1 Geopolitical risks

High uncertainty remains regarding the war in Ukraine, especially as to the duration of the war, which could be protracted, and its possible escalation, which could lead to a further deterioration in relations between Russia and the western world and could exacerbate the divided world order.

Over the last stretch of 2022 and up to February 2023, investor risk aversion generally eased, but the global banking sector turmoil in March drove up risk premia for various financial asset classes (see Chart 1). Moreover, the uncertainty surrounding the geopolitical tensions is a further source of risk of an abrupt correction in financial asset prices, in addition to the risks to the growth outlook and inflation. Moreover, certain signs of high asset valuations worldwide,² both in debt securities (see Chart 2) and equities, make this a more significant risk.

² Signs of high valuation are assessed by checking the market prices of financial assets against their intrinsic value (for instance, drawing on expectation and risk regarding the ability of the issuers to generate income) and analysing general market conditions (for example, risk-free rate levels or volatility).

The start of the war in Ukraine in February 2022 triggered a very sharp increase in commodity prices and, in particular, in energy prices, which had already been rising since mid-2021. This drove up inflationary pressures generally and prompted a significant slowdown in economic activity. However, global supply conditions proved more flexible than was initially expected. Moreover, economic policies were adopted to compensate for energy price rises and encourage energy saving, and there was the added advantage of a mild winter.

All the foregoing has prevented the most adverse scenarios, and energy prices have decreased markedly since the second half of 2022, with gas and oil prices currently below their February 2022 levels (before the start of the war in Ukraine). Yet despite these favourable developments, the uncertainty surrounding the future course of energy prices and their pass-through to prices of consumer goods remains very high. Indeed, OPEC+ recently announced a cut in oil production which could halt the decline in oil prices.

Moreover, the geopolitical tensions also affect other regions. These include most notably the continuing political and trade tensions between the United States and China. All these factors raise the risk of a divided world order becoming entrenched that would, at least partly, reverse the efficiency gains from globalisation, especially in the medium and long term.

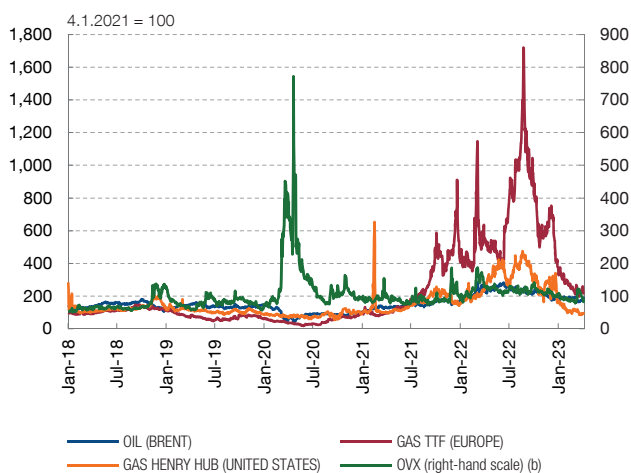
Spanish banks have significant business in emerging market economies such as Latin America and Türkiye, which means that developments in those areas matter to them. The last six months have notably seen political tensions in Brazil, which have moderated more recently, while Türkiye, in addition to its high level of financial vulnerabilities, has suffered natural catastrophes which have marred confidence in the future course of its economy.

R2 Higher and more persistent inflation

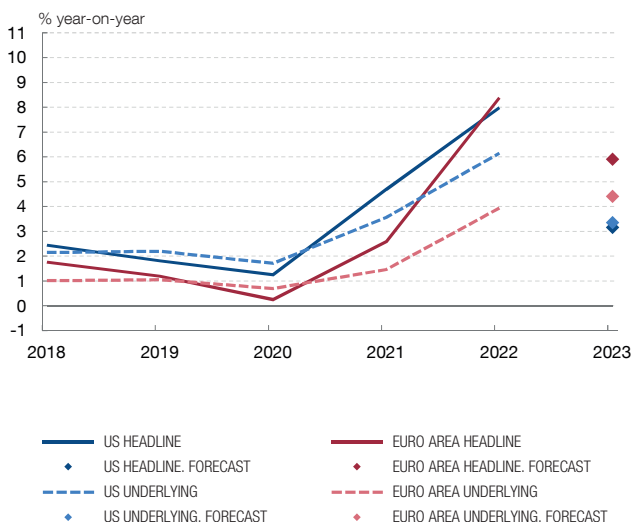
The high inflation figures recorded worldwide in 2022 were essentially driven by the increases in energy and food prices, including their pass-through to underlying inflation. Upside pressure on prices was also exerted by the continuing – albeit more moderate – global supply chain disruptions first seen in 2021, and by demand-side factors linked, above all, to the lifting of the pandemic-related health restrictions. In this respect, the increase in demand in certain service industries (for example, leisure, hospitality and tourism) made a particularly significant contribution.

Energy costs fell in the second half of 2022 (see Chart 3), helping to ease inflation dynamics worldwide. Yet geopolitical tensions still pose a risk of higher energy market prices and volatility, and OPEC+'s decision to cut oil production could mark a potential change in trend.

3 NATURAL GAS AND OIL PRICES (a)



4 INFLATION RATES IN THE EURO AREA AND THE UNITED STATES (c)



SOURCES: Refinitiv Datastream, national statistics, ECB and Federal Reserve Bank of Philadelphia.

- a The spot prices of the three markets are shown in euro for comparability purposes.
- b OVX is the expected 30-day volatility of crude oil prices in the United States Oil Fund.
- c The diamonds represent the forecasts for 2023 in the United States and the euro area, taken from the Survey of Professional Forecasters, prepared by the Federal Reserve Bank of Philadelphia and the ECB, respectively. The harmonised index of consumer prices is used for the euro area, while the consumer price index is used for the United States. The annual average growth rate is shown.

In addition, underlying inflation remains high in many geographical areas (see Chart 4) and this increases the risk of second-round effects both on wages and firms' mark-ups, which would prolong and exacerbate inflation dynamics.

Also relating to second-round effects, fiscal measures that seek to mitigate the increase in the cost of living should be temporary, focused on the most vulnerable groups and compatible with efficient consumption – especially energy consumption – decisions. Otherwise, they could fuel inflation dynamics and require a more vigorous monetary policy response, which would drive up households' and firms' borrowing costs, putting pressure on their ability to pay.

Meanwhile, the reopening of the Chinese economy after winding up the zero-COVID policies generates opposing risks for inflation: upside risks, on account of the global demand momentum, in particular for commodities; and downside risks, owing to the easing of the global supply chain bottlenecks.

In this highly uncertain environment, in the euro area the Governing Council of the European Central Bank (ECB) has reinforced the importance of a data-dependent approach to its policy rate decisions, which will be determined by its assessment of the inflation outlook in light of the incoming economic and financial data, the dynamics of underlying inflation and the strength of monetary policy transmission. The Governing Council has also said that it is monitoring current market tensions closely and stands ready to respond as necessary to preserve price stability and financial

stability in the euro area. Other central banks are expected to likewise maintain proactive monetary policies in a high inflation environment worldwide, while at the same time being ready to take decisive action to check financial instability episodes.

If the upside risks to inflation materialise, monetary policy tightening is likely to be stricter than that currently factored into market expectations. This could drive up perceived uncertainty among investors, with the consequent increase in risk premia. Alternatively, if the financial tensions observed in March 2023 were to continue or heighten, they could trigger further tightening of financing conditions and have contractionary effects on demand, curbing inflationary pressures. The difficulty to accurately predict in the present environment the speed and intensity of the transmission of monetary policy to the financial sector's financing costs and households' and firms' borrowing costs adds, from a financial stability standpoint, a further risk dimension associated with these shocks.

R3 Contraction in real activity

High inflation, elevated uncertainty and tightening financing conditions moderated growth in the second half of 2022. Yet economic activity worldwide, in Spain and in the rest of the euro area was more resilient than was expected a few months ago, reducing the likelihood of recession in 2023 (see Chart 5).

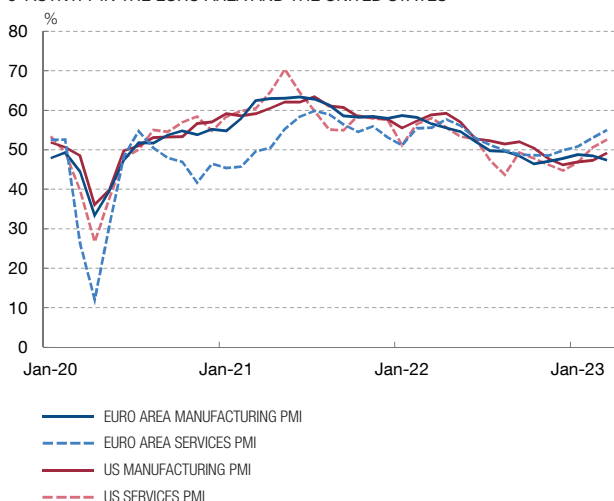
The first reason for this was the more favourable development in supply-side conditions in the second half of 2022, as the energy price rises seen earlier in the year reversed and the global supply chain bottlenecks eased, a process that is expected to continue in the first half of 2023. As indicated in the case of inflation, energy market shocks continue to pose risks to supply-side conditions and could reverse the recent improvements in activity.

Demand has also been stronger than expected, despite the high uncertainty. This is partly explained by the savings and liquidity reserves accumulated by households and firms during the initial phase of the pandemic, and by the support that fiscal policy and good labour market performance have provided to household income. However, the negative cumulative effect of inflation and the tightening of financing conditions, which has still not been fully passed through to households and firms, pose the risk of demand becoming more contractionary. The episodes of banking sector turmoil seen in March 2023 may also have a contractionary effect.

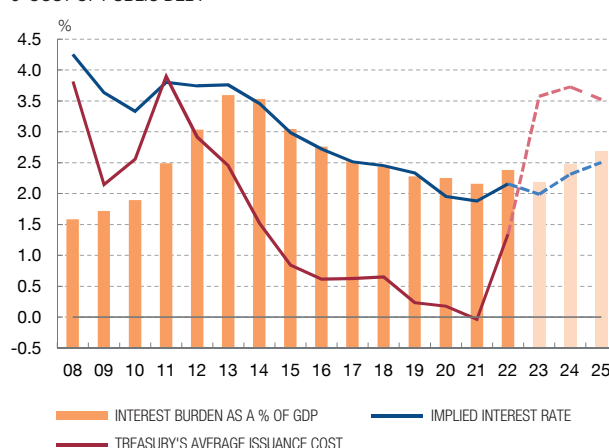
The main vulnerabilities³ of the Spanish economy and financial system include:

³ In this report, vulnerabilities are defined as economic and financial conditions that increase the impact or probability of materialisation of risks to financial stability.

5 ACTIVITY IN THE EURO AREA AND THE UNITED STATES



6 COST OF PUBLIC DEBT



SOURCES: National statistics, IGAE, S&P Global and Banco de España.

V1 High level of government debt

On the latest available data, at end-2022 the general government deficit stood at 4.8% of GDP, 2.1 percentage points (pp) lower than in 2021. The government debt-to-GDP ratio also fell in the year, continuing in the pattern that began in 2021 Q2, and stood at 113.2% of GDP at December 2022, almost 7 pp lower than at end-2020 (120.4% of GDP). Nominal output growth is playing a key role in tempering the government debt ratio, with a further reduction expected to 109% of GDP in 2024.

Monetary policy tightening played a key role in the year in the increase in the yields of Spanish government debt securities, which at December 2022 were 309 basis points (bp) higher (1-year maturity) and 251 bp higher (10-year maturity) than a year earlier. However, this increase had only a moderate impact on general government interest expenses, as pre-existing debt maturities are relatively long, in accordance with the Treasury's earlier funding strategy, and redemption of debt securities issued at comparatively high interest rates during the global financial crisis continue to offset the impact of the higher cost of new issuances (see Chart 6). The implicit average yield of Spanish government debt in 2022 was 2.1%, just 0.2 pp above its 2021 level.

In addition, since end-2021, the spread between Spanish and German 10-year bonds has widened only slightly. After peaking at 136 bp in June 2022 (around 58 bp more than at December 2021), it has narrowed thereafter, standing at around 100 bp at the end of 2023 Q1. The global banking sector turmoil in March 2023 prompted only a very short-lived and limited increase in the Spanish sovereign risk premium which rapidly reversed.

Despite the signs of containment of this vulnerability in the short term, the economic projections continue to envisage high government debt in Spain in the coming years. The structural budget deficit is also expected to remain elevated. Moreover, continued high interest rates will also gradually drive up the average cost of debt. This fiscal position makes the economy vulnerable to changes in market sentiment and limits the fiscal space available to address the potential deterioration in financing conditions or the stalling of economic activity. In addition, maintaining a high level of public sector debt may increase the cost of meeting the borrowing needs of households and firms.

In this setting, as indicated in previous editions of this report, a fiscal consolidation process should be set in motion in 2023, to gradually reduce this vulnerability and make more fiscal space available to respond to future shocks. In particular, to reduce a high structural component of the budget deficit, decisive and sustained action over time is needed, albeit tailored to macroeconomic developments. The combination of large-scale use of the NGEU funds – which has no direct impact on the budget deficit, but will have a positive effect on economic activity – with the launch of a fiscal consolidation process would reduce the short-term cost, in terms of lower activity, of this fiscal rebalancing process.

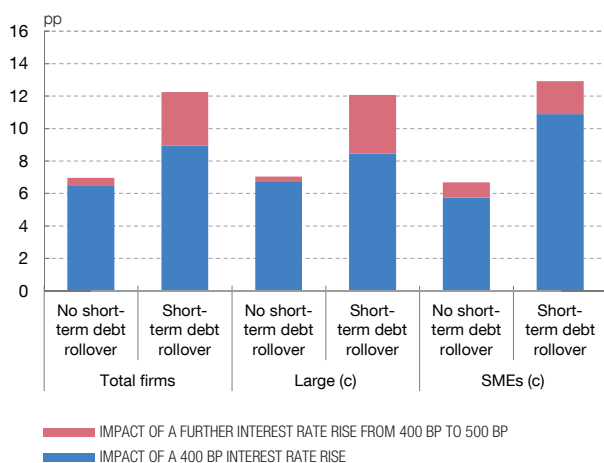
It must also be considered, when assessing Spain's fiscal position, that the deactivation of the escape clause of the Stability and Growth Pact in 2024 will mark the return to EU-wide fiscal rules. In accordance with the latest European Commission guidelines for member countries' fiscal policy, Spain must submit, in spring 2023, a stability programme that will not only lead to a general government deficit systematically below 3%, but will also pave the way for a continuous decline in government debt.

V2 Financial weakness of households and firms

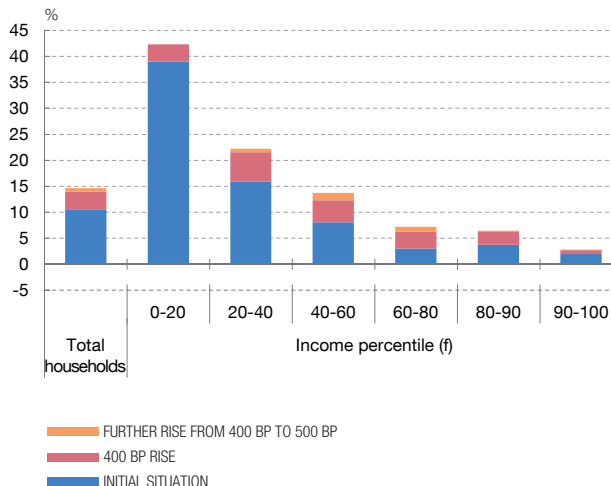
In 2022 corporate profits in Spain performed very unevenly by firm size and sector. Among SMEs, the proportion of firms whose earnings declined between April and September 2022 was higher than those whose earnings improved, while in the year overall, profits performed less well in economic sectors – such as the manufacturing industry— where activity was less dynamic and the pass-through of higher costs to prices was lower. In addition, the proportion of financially vulnerable firms increased in these sectors.

Firms' debt burden is increasing, albeit still only moderately, because monetary policy interest rate hikes have only been partially passed through to the cost of bank lending, and also because, compared with previous periods, the stock of long-term and fixed-rate debt is higher, in particular in the case of the ICO-backed loans granted since the start of the pandemic. However, at end-2022, 40% of the increase in the 3-month EURIBOR during the year had been passed through to the average cost of non-financial corporations' bank debt. The cost of corporate funding on the wholesale

7 ESTIMATED INCREASE IN THE SHARE OF DEBT HELD BY FIRMS UNDER HIGH FINANCIAL PRESSURE DUE TO THE RISE IN INTEREST RATES (a) (b)



8 IMPACT OF THE INTEREST RISE ON THE PERCENTAGE OF INDEBTED HOUSEHOLDS WITH A HIGH NET DEBT BURDEN (d) (e)



SOURCE: Banco de España.

- a A firm is considered to be under high financial pressure when the ratio of (gross operating profit + financial revenue) to financial costs is below one.
- b In the case of no short-term debt rollover, the rise in interest rates is fully passed through to the interest rate on long-term and variable-rate debts and loans. In the case of deposits, a pass-through is assumed in line with historical patterns. Short-term rollover differs from the previous case in that the rise in interest rates is also passed through to short-term debts and loans. These estimations are based on Integrated Central Balance Sheet Data Office data for 2021.
- c Size is defined according to European Commission Recommendation 2003/361/EC.
- d Simulations drawing on data from the 2020 Banco de España Survey on Household Finances. The impact of the interest rate increases reflects the change in net interest burden (debt servicing costs - interest income from deposits). Interest rate increases are assumed to be passed through fully to variable borrowing costs and partially to deposit rates.
- e The net interest burden is considered to be high when it exceeds 40% of household income.
- f The percentiles are defined for the entire sample of households, regardless of whether or not they are indebted.

markets rose more sharply in 2022, driven by monetary policy tightening, and despite some easing of corporate risk premia in the last quarter of the year.

Looking ahead, firms' borrowing costs can be expected to climb, as monetary policy transmission increases, especially in the event of further monetary policy tightening. The future course of risk premia is more difficult to forecast, although they generally increase when financing conditions tighten. Accordingly, the proportion of firms subject to high financial pressure is likely to grow, especially insofar as it becomes necessary to roll over debts with more short-term maturities (see Chart 7). In this respect also, the recent banking sector turmoil may exert further pressure on firms' borrowing costs, through the risk premium channel, and make it more difficult for them to access external financing. Moreover, if risks to activity were to materialise as a result of the financial tensions, this would reduce firms' capacity to generate income with which to meet their payment obligations.

Meanwhile, the sharp increase in inflation led to a drop of 4.4% in households' real disposable income in 2022 compared with the previous year, and the higher interest rates are curtailing indebted households' spending power and making it more difficult for them to meet their financial obligations. These negative effects on purchasing power are more prevalent among lower-income indebted households.

The degree of pass-through of higher market interest rates to the cost of households' outstanding debt was still moderate in 2022. For instance, at year-end, almost 30% of the increase in the 12-month EURIBOR during the year had been passed through to the cost of households' outstanding mortgages. The cost of bank loans to households is expected to increase further in the coming quarters, especially as existing floating rate mortgages come up for review. In recent years fixed rate mortgages have been more prevalent and this limits the scale of this transmission channel compared with previous periods. Yet variable and mixed rate mortgages still accounted for slightly more than 70% of the total stock at December 2022. Overall, the current interest rate hike cycle is expected to drive up the proportion of indebted households with a high debt burden, especially in some of the lower income percentiles (see Chart 8).

If the banking sector turmoil seen in March 2023 was to spread, resulting in broader financial market tensions, these could mitigate the inflationary pressures, influencing the ECB's interest rate decisions. However, the possible relief this could entail for households' financial situation could be offset by lower economic momentum, higher risk premia and more restricted access to external financing.

Faced with increased financial pressure on households, changing the contractual terms and conditions of their debts to facilitate debt servicing, especially for the most vulnerable households, could be a possible solution, to maximise the likelihood of lenders recovering their debts and mitigate the potential negative impact of loan defaults on households' consumption and their access to credit.

At end-2022, the reform of the Code of Good Banking Practice (CGP), originally introduced in Royal Decree-Law (RDL) 6/2012, sought to regulate forbearance in the case of segments of households with high socioeconomic vulnerability. In addition, for medium income households, RDL 19/2022 introduced a new CGP that allows contractual terms and conditions to be amended and sudden increases in interest rates and their impact on the mortgage burden to be delayed over time. Also, for mortgage households overall, the reform has temporarily reduced the costs of full or partial early mortgage repayment and of mortgage conversion from variable to fixed rate, which could give rise to deleveraging and reduce households' vulnerability to further interest rate hikes.

The costs and benefits of forbearance measures and, more generally, of changes to contractual debt terms and conditions,⁴ and their distribution between lenders and borrowers, may differ greatly according to how the measures are designed and implemented, for loans covered by CGPs and for those that lie beyond their remit. With

⁴ RDL 6/2012 refers specifically to forbearance. However, changes to contractual terms and conditions under the RDL, or other cases envisaged in RDL 19/2022, do not automatically imply classification as forbearance for the purposes of accounting provisions in accordance with Annex 9 of Circular 4/2017. For this purpose, each individual debtor's capacity to remain up to date with their payment obligations in the absence of changes to terms and conditions must be assessed.

the aim of contributing to the analysis of these costs and benefits, the special feature included in this report analyses the banking sector's experience with the CGP introduced by RDL 6/2012, its reform, and the introduction of a new temporary CGP in 2022. It also analyses, more generally, the credit quality of forbore home mortgage loans.

V3 Weaknesses in the financial sector's intermediation capacity

The profitability of the Spanish banking sector performed very favourably in 2022. Return on equity (ROE), excluding extraordinary items, was up 140 bp in 2022, reaching a level of 10.2%, well above the average cost of equity (COE) estimated for the year (7.5%) (see Chart 9). However, the deterioration in global financing conditions and, particularly, the fall in banking sector stock prices, could push up the COE in the coming quarters.

Spanish banks also continued to improve the quality of their balance sheets in 2022, at a faster pace than in the period 2020-2021. In particular, non-performing loans (NPLs) in Spain declined by 18.5% year-on-year over 2022. The NPL ratio stood at 3.5% at end-2022 (down 75 bp in the year) after falling across all sectors. Stage 2 exposures⁵ also declined, but with a mixed sectoral performance in this case, as they increased in loans to households and decreased in loans to firms. At least for the time being, the slowdown in activity over 2022 does not appear to have led to a worsening of Spanish banks' credit quality.

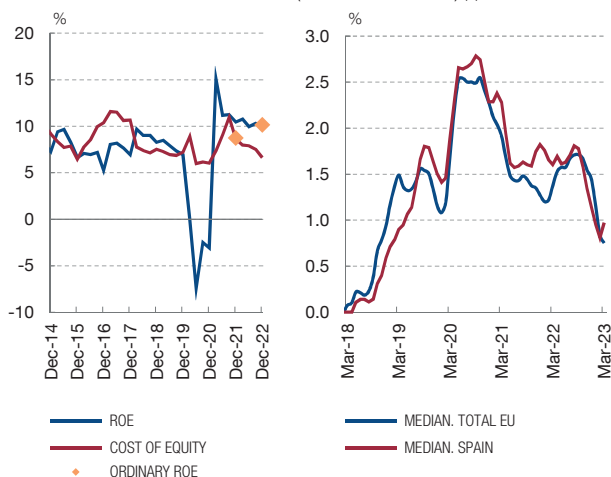
The positive changes in Spanish banks' balance sheets and market valuation also led to a lower contribution to systemic risk, which appears to have been only very partially reversed by investors' higher risk aversion and the fall in stock prices in March 2023 (see Chart 9). However, in this favourable setting, Spanish banks reduced their CET1 solvency ratio during 2022. In December 2022 the CET1 ratio stood at 13%, 25 bp less than a year earlier. This owed mainly to the negative contribution from the change in risk-weighted assets,⁶ which was only partially offset by the lower positive contribution from the change in the numerator of the ratio.

In the present setting, which combines high current profitability with significant uncertainty at different time horizons, banks should accumulate loss-absorbing funds to allow them to deal with unexpected situations without restricting the supply of credit to solvent projects. In particular, they must continue to exercise a high degree of prudence in their provisioning and capital planning policies. An adequate and early recognition of risks which preserves confidence in the sector is equally necessary.

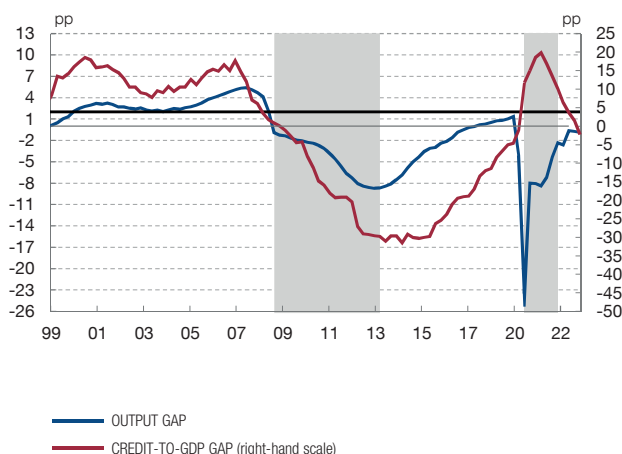
5 Pursuant to Circular 4/2017, a loan is classified as Stage 2 when credit risk has increased significantly since initial recognition, even though no event of default has occurred.

6 Risk-weighted assets are a measure of the risks that a bank has in its portfolio. Each asset is multiplied by a coefficient, which is higher the higher the risk associated with it, to obtain a risk-weighted asset figure.

9 ROE AND COST OF EQUITY (LEFT-HAND PANEL) AND DISTRIBUTION OF THE SRISK SYSTEMIC RISK INDICATOR (RIGHT-HAND PANEL) (a)



10 CREDIT-TO-GDP GAP AND OUTPUT GAP (b)



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

- a The diamonds in the left-hand panel show ROE excluding extraordinary profit for 2021 and 2022. The SRISK indicator shows the additional capital that would be needed in the event of a significant market shock to cover bank capital requirements at market value, expressed as a percentage of each bank's total assets. The parameters used are 4.5% for capital requirements, 10% for the fall in the European stock market index and 22 working days for the period in which the hypothetical market decline occurs. For more details, see C. Broto, L. Fernández Lafuerza and M. Melnychuk. (2022). "Do buffer requirements for European systemically important banks make them less systemic?". Working Papers - Banco de España, 2243. The SRISK index for 2023 Q1 is calculated on the basis of 2022 Q4 asset and liability figures drawing on the stock price data for each month. The series have been smoothed using a three-month moving average. Data updated at 31 March 2023.
- b The output gap represents the percentage difference between observed GDP and its quarterly potential level. Values calculated at constant 2010 prices. See P. Cuadrado and E. Moral-Benito. (2016). "Potential growth of the Spanish economy". Occasional Papers - Banco de España, 1603. The credit-to-GDP gap is calculated as the percentage point difference between the observed ratio and its long-term trend calculated by applying a one-sided Hodrick-Prescott filter with a smoothing parameter of 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 Papers - Banco de España, 1906. Data available up to December 2022. The grey shaded areas show two financial crisis periods identified in Spain since 2009: the systemic banking crisis (2009 Q1-2013 Q4) and the crisis triggered by the onset of COVID-19 (2020 Q1-2021 Q4). The black horizontal line shows the benchmark threshold for the activation of the CCyB, equal to 2 pp for the credit-to-GDP gap.

The materialisation of the macro-financial risks identified in this report may have a significant adverse impact on banks' profitability and solvency. First, the rise in interest rates has boosted banks' revenue to a greater extent than their financing costs and was the factor with the greatest positive influence on profitability in 2022. Factors such as the comfortable liquidity situation with which the Spanish banking sector is facing this interest rate hike cycle and the negative rates from which it started have so far contributed to containing the cost of bank deposits (where the level of pass-through of the increase in monetary policy rates is currently very low) and the need to raise wholesale funding.

These factors also position the Spanish banking sector favourably to absorb the fallout from the financial turmoil which affected the banking sector worldwide in March 2023 and entails a significant shock to previous expectations, and which could raise the cost of deposits and other sources of bank financing. In the meantime, banks should take advantage of the current profitability situation to increase their capacity to absorb unexpected losses.

The recent upsurge in risk aversion in financial markets has also increased global concerns about vulnerabilities in the non-bank financial intermediation (NBFI) sector. These vulnerabilities, which are linked to tight liquidity positions (particularly in the open-ended investment fund segment) and, in other cases, to high leverage, could magnify the impact of the banking sector turbulence that started in March 2023 on the financial situation of these intermediaries. This in turn could trigger a further tightening of financing conditions in the banking sector, with which the NBFI segment has direct and indirect links, and additional negative feedback loop effects between banks and non-bank financial intermediaries. Liquidity and leverage factors were behind the stress episode of autumn 2022 in the UK pension fund sector and they also played an important role in the SVB and Credit Suisse crises.

In the past, investment fund and other NBFI sectors have exhibited procyclical behaviour, exacerbating downward price corrections, and there are no signs that a different pattern would emerge if risk aversion were to continue or intensify. In Spain, investment funds have better liquidity positions which limit this risk. However, corrections in global financial markets, which may be triggered by the build-up of vulnerabilities in NBFI segments in other geographical areas, would still affect the Spanish financial system as a whole.

V4 Incipient signs of real estate market imbalances

The number of house purchases and the flow of new mortgage lending slowed significantly in 2022 H2, and even recorded negative year-on-year growth rates in 2022 Q4. In particular, the volume of new mortgages granted during 2022 Q4 was 5.4% lower than in the same period a year earlier. This slowdown in housing market activity appears to have stemmed from households' loss of purchasing power, heightened uncertainty and the gradual tightening of mortgage lending financing conditions. Despite this, the volume of house purchases and new mortgages is still higher than before the pandemic.

House prices also lost momentum, albeit much more moderately, partly due to the persistence of some weakness in the supply of housing, and grew by 5.5% year-on-year in 2022 Q4, 2.1 pp less than three months earlier. At December 2022 house prices stood 12.6% above their pre-pandemic level, 1.1 pp below the increase in prices of consumer goods in the period (13.7%). Moreover, the ratio of house prices to household income stood at relatively high levels, having remained on an upward trend since 2014.

In this regard, house price imbalance indicators (relating to their long-term growth, to interest rate and income levels, etc.) have shown some signs of overvaluation since 2020 and continue to do so, although these signs are contained for the time being and the tightening of financing conditions could contribute to moderating

them further. It should be borne in mind that new rents are rising significantly, and this could affect house price developments in future quarters.

Throughout 2022, credit standards for newly approved home mortgages remained relatively stable at prudent levels, in relation to both the value of the collateral (loan-to-value) and income (loan-to-income). Thus, real estate market growth in 2022 H1 does not appear to have entailed greater risk-taking in these dimensions.

While the rise in reference rates translated into higher interest rates on new mortgage loans in 2022 H2, the spreads between mortgage rates and the reference rates continued to narrow. Thus, the return on these loans could more easily fall to very low levels, or even generate losses, in the event of potential increases in the cost of bank borrowing or a deterioration in borrowers' ability to pay.

Macroprudential policy stance

As in the Autumn 2022 FSR, uncertainty remains regarding short-term macroeconomic developments, although the areas of risk have partly shifted from energy markets to financial markets and the international banking sector, and to the persistence of underlying inflation. Likewise, there continues to be no evidence of any build-up of systemic imbalances in credit to the private sector in Spain. In fact, the credit-to-GDP gap adjusted for the financial cycle in Spain has fallen below the activation threshold of the countercyclical capital buffer (CCyB), as anticipated by its downward trend since 2021 (see Chart 10). There are also no signs of imbalances in other indicators linked to credit growth. Moreover, the return to normal economic activity in 2021 and 2022 has reduced the negative output gap, although the improvement slowed down in 2022 H2 owing to weaker momentum in activity. In this regard, it will be important to see whether the expected slowdown in the real estate market is confirmed, as the most recent data seem to suggest. Lastly, the recent banking sector turmoil generates additional downside risks to lending and activity. Consequently, the available indicators are consistent with holding the CCyB rate at 0% as at present and not activating other macroprudential measures.