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Financial stability analysis: A practical application to Spain today

Tribute to Vicente Salas / Funcas

Pablo Hernández de Cos
Governor

I wish to begin by thanking FUNCAS, Carlos Ocaña, the Director General, and José María Méndez, the Vice-chairman, for kindly inviting me to take part in today's events.

I am delighted to be part of this well-deserved tribute to Vicente Salas. I personally and, more importantly, the Banco de España, owe Vicente an enormous debt of gratitude.

Over his lengthy professional career, he has been very closely linked to the Banco de España, through a singular relationship on two different planes, but with clear synergies. As a member of its governing bodies, by contributing to the institution's decision-making during periods of far-reaching change. And in his day-to-day work, by guiding many of our economists through the complex world of research in finance and banking, where the breadth of knowledge has grown at great speed in recent decades. I do not wish to enter into a discussion as to which of these relationships has been most important, as he has made a fundamental contribution in both areas, but I do wish to highlight his ability to multiply the synergies between the two, exerting his influence to ensure that decision-making was based on quality research and that research was oriented towards the issues that most concerned those responsible for decision-making.

The relationship began in the period 1994-1998 when Vicente was a member of the Banco de España's Governing Council. If you recall, at that time Spain was emerging from a crisis that tore apart the European Monetary System (EMS), but that also laid the foundations for Economic and Monetary Union (EMU), which would be completed just one year after the end of his mandate.

More recently, from May 2006 to May 2018, Vicente was a member of both the Executive Commission and the Governing Council. This was without doubt an even more difficult period, in the face of a global financial crisis whose profound effects on the Spanish banking system are well known to us all.

Vicente always contributed to consensus in decision-making and always gave his clear support to the technical services, with analytical proposals based on his own research experience. He did not conceive that decisions could be taken without the proposals being backed by rigorous analysis. He was a driving force behind the need to combine aggregate data with individual and sectoral data on firms and banks, to obtain a more accurate diagnosis of the macro-financial situation. He also insisted on the need to take into account the interactions between the real and the financial economy, always using the concept of general equilibrium as a reference analytical framework. Also, and crucially for an institution with responsibilities for the financial stability of the banking system, he believed that it was imperative to have procedures and systems that could detect financial vulnerabilities and risks as and when they arose. Our approach to macroprudential policy at the Banco de España today is based precisely on that set of principles.

In his second facet, Vicente Salas played a key role in enhancing the rigour of the Banco de España's economic-financial analysis, and helped broaden its research horizon. This contribution began when he acted as a consultant for the Financial Stability and Macroprudential Policy Department, from January 2004 to April 2006, but his collaboration

with the Department's economists has been maintained to date, and will, we trust, continue in the future.

The work instigated by Vicente Salas from the Banco de España, with extensive circulation in leading research journals, has helped us to increase the knowledge of the financial system in Spain and is fully relevant today. For example, to highlight just a few examples of his key work: his studies on the financial fragility of firms and the impact on banks; his assessment of the instruments available to banks to protect themselves from credit default, or even to be able to early identify default through bank guarantees; and his work on banking competition and the existence of a trade-off with financial stability.

Perhaps an even more fundamental contribution to research activity was his drive to use the Banco de España's rich granular database – the Central Credit Register – to cross-check all these assumptions. This is the closest thing the Banco de España has to big data and is an essential component for the exercise of our economic analysis and financial stability functions. Indeed, the work instigated by Vicente Salas sowed the seed for the models that we currently use for the bank stress tests.

I have no doubt that, without these contributions, the analysis of the macro-financial situation of the Spanish economy which I will now address would be much more limited.

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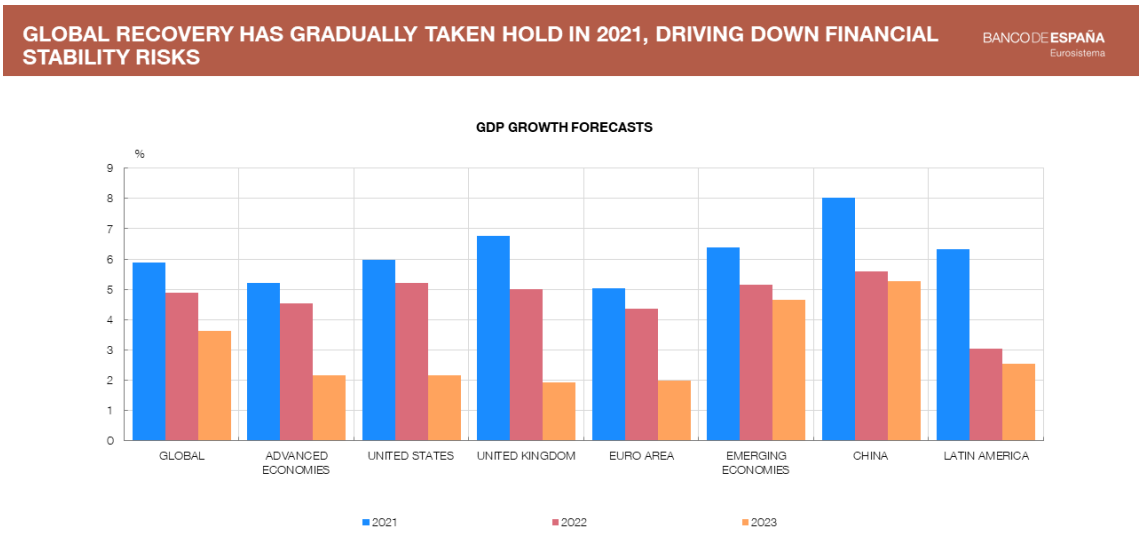
The progressive resolution of the health crisis and the gradual economic recovery have prompted a decline in financial stability risks



It is now more than 18 months since the COVID-19 pandemic unleashed its impact on society and the economy worldwide. This shock was a potential destabilising force on the financial system. Customer-supplier networks could potentially spread its effects throughout the economy and to the bulk of society. Naturally, the impact on the banking system would have been huge, and could even have amplified the initial shock.

Given these potential implications and the exogenous and transitory nature of the shock, it was met with an unprecedented response by authorities worldwide. This prevented financial stability risks from materialising.

In the most recent period, progress in the vaccination campaign and the progressive resolution of the health crisis worldwide have allowed restrictions on mobility and social interaction to be gradually lifted, so that activity has returned to a recovery path, albeit one that is still incomplete and unequal.

The projections of the various international organisations coincide in that global economic growth will be robust this year and in 2022,[1] although the recovery is progressing at different speeds across regions. In general, it has taken a sounder hold in developed economies but is weaker in emerging market economies, where the vaccination campaign has generally been slower.

In the euro area, in accordance with the latest projections of the European Central Bank (ECB), real GDP growth is expected to reach 5% in 2021 – representing a return to the pre-pandemic level in the last quarter of the year – and 4.6% in 2022.

SINCE THE SPRING, SPANISH GDP AND EMPLOYMENT HAVE RETURNED TO A RECOVERY PATH, BUT AT END Q3 GDP WAS STILL 6.6 PP BELOW ITS END-2019 LEVEL (-1.2% IN TERMS OF EFFECTIVE SOCIAL SECURITY REGISTRATIONS)

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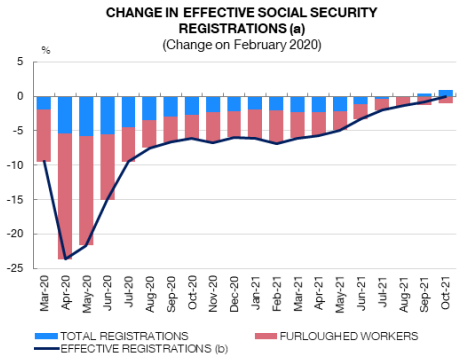

SOURCES: Banco de España, INE and Ministerio de Inclusión, Seguridad Social y Migraciones.

a The average data for each month are taken and are seasonally adjusted.
b Effective social security registrations are total registrations excluding furloughed workers.

This improvement in the macro-financial situation has also passed through to the Spanish economy, although despite the growth in the third quarter, GDP is still some 6.6% below its pre-crisis level.

At the aggregate level, the recovery under way is quite widespread across markets and agents. On the financial markets, the tension unleashed following the outbreak of the pandemic has now been almost completely corrected and the stock market indices in the main developed economies have tended to rise, underpinned by better than expected corporate earnings.

[1] In particular, the latest projections published by the IMF indicate that global GDP will grow by 5.9% in 2021 and by 4.9% in 2022. In 2023 the growth rate will moderate to 3.6%.

In Spain, the economic recovery has given rise to higher corporate earnings and profitability, and in most economic sectors corporate turnover has returned to the levels of the same period of 2019. This recovery, together with favourable lending conditions and longer average maturities, is also helping to mitigate firms' liquidity risks. In addition, firms' solvency risks are declining, as shown by the recent fall in average debt and debt burden ratios, in the latter case also driven by the decline in the average cost of outstanding debt.

Turning to households, employment is recovering faster than activity.[2] Thus, in October 2021, effective social security registrations were barely 0.1% lower than their pre-pandemic levels. As a result, households' gross disposable income (GDI) grew by 1% in the first half of 2021, although it is still 3.9% below the 2019 levels.

At the same time, although households' average debt ratio increased slightly in the first half of the year, the debt burden fell, in this case also owing to the decline in the average cost of outstanding debt.[3] In addition, households' financial position has been strengthened by the rise in the prices of financial and real assets, and the increase in saving.

SPANISH BANKING SECTOR: LOWER NPL RATIO, RECOVERY IN PROFITABILITY AND HIGHER SOLVENCY RATIOS

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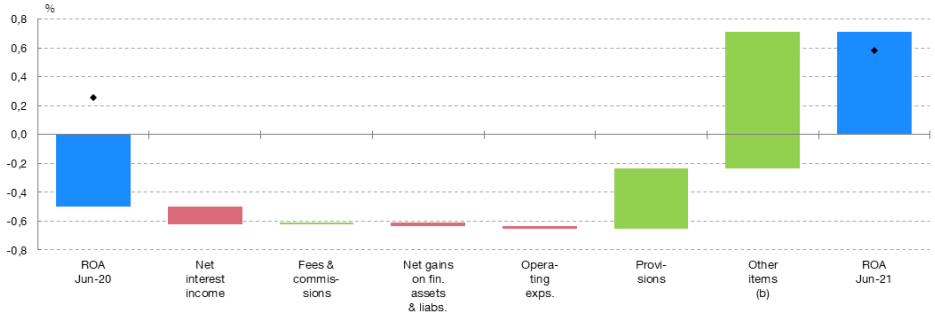
BREAKDOWN OF CHANGE IN BANKING SECTOR PROFIT
Consolidated net profit as a percentage of ATA (a)



SOURCE: Banco de España.

a The red (green) colour of the bars indicates a negative (positive) contribution of the item concerned to the change in consolidated profit at June 2021 compared with June 2020. The black diamonds denote ROA excluding extraordinary items. In particular, at June 2020, goodwill adjustments (-€12.2 billion), a deferred tax asset adjustment (-€2.5 billion) and sale of an asset management business (€0.3 billion), and at June 2021, extraordinary income as a result of a merger, in particular negative goodwill (€2.9 billion), separation off of an insurance undertaking (€0.9 billion) and extraordinary restructuring costs (-€1.2 billion).
b Includes, inter alia, the extraordinary items mentioned in note (a) above.

In the financial sector, the unprecedented support of monetary and fiscal policy, together with banks' higher solvency and liquidity levels at the start of the pandemic, have meant, on this occasion, that banks have been highly resilient to the effects of the crisis.

Thus, contrary to past experience, there has been no increase in non-performing loans (NPLs) in the bank lending portfolio overall.[4] Moreover, banks' profitability has now returned

[2] In October 2021, social security registrations were above their February 2020 level (0.9% higher in seasonally-adjusted terms). Effective social security registrations are total registrations excluding workers subject to furlough schemes.
[3] Thus, the debt-to-GDI ratio stood at 94.9% in June, 4.2 percentage points (pp) above the pre-pandemic level, while the debt burden-to-GDI ratio was 0.5 pp above its pre-health crisis level.
[4] In June 2021, the NPL ratio of credit to the resident private sector stood at 4.3%, down 0.25 pp on June 2020.

to its pre-pandemic levels,[5] especially as a result of the decline in impairment provisions (down 50% at the consolidated level), which have also returned to their pre-crisis levels. This decrease has been sharpest in business outside Spain.[6]

Bank earnings have improved across the board, but especially among those banks that posted a worse performance last year. Accordingly, the earnings distribution in June 2021 was similar to the pre-pandemic distribution.

Furthermore, not only has banks' solvency not declined, but it has even grown, as a result of the increase in capital and the decrease in risk-weighted assets.[7]

RESULTS OF SPANISH BANK STRESS TESTS: HIGH CAPACITY TO ABSORB SHOCKS AT THE AGGREGATE LEVEL, FULLY CONSISTENT WITH THE RESULTS OF THE EBA'S STRESS TESTS, ALTHOUGH WITH SOME HETEROGENEITY

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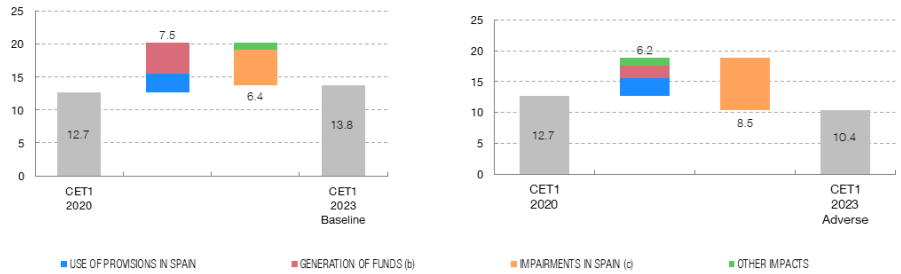
FLESB STRESS TESTS. IMPACT ON CET1 RATIO UNDER BASELINE SCENARIO (L-H CHART) AND ADVERSE SCENARIO (R-H CHART) (a)



SOURCE: Banco de España.

a The net effect of positive (negative) flows is indicated by the figure above (below) the bar in question. The initial and final CET1 ratios are presented as "fully-loaded". Other impacts include the change in RWAs between 2020 and 2023 and the effect of ICO guarantees. Aggregate results, including institutions directly supervised by the SSM and by the Banco de España.
b Includes net operating income in Spain and net income attributable to business abroad. Thus, the possible funds generated by the banking group as a whole are compared with the impairment losses in Spain (which are the focus of these tests).
c Projection over the 3-year horizon of the exercise of gross losses due to credit portfolio impairment for exposures in Spain and other types of losses (associated with the fixed-income portfolio, foreclosed asset management and the sovereign debt portfolio).

This improvement was reflected in the results of the stress tests that we perform every year on Spanish banks. On this occasion they coincided with the stress tests conducted by the European Banking Authority (EBA), meaning that the macroeconomic scenarios considered were identical.

The baseline scenario of these tests assumes a recovery in activity in line with the economic projections available at the start of the exercise. The adverse scenario assumes an accumulated fall in GDP of 3% over three years in the case of Spain, which is a high level of severity, given that it is in addition to the sharp fall in GDP recorded in 2020.

The results show that, on aggregate, Spanish banks have a high capacity to absorb shocks. This coincides with the results of the EBA's stress tests, although there is a certain degree

[5] Specifically, in the first half of 2021, return on assets (ROA) stood at 0.71% (up 1.2 pp from -0.5% in June 2020) and return on equity (ROE) at 11.2% (up 18.5 pp from -7.3% in June 2020). Excluding extraordinary items, the sector's ROA would have stood at 0.6%, an increase of 0.3 pp compared with June 2020 when it was 0.3%.
[6] Profitability has also increased because at the start of the pandemic, the bigger Spanish banks recorded negative extraordinary items associated with goodwill impairment in several jurisdictions which have not been repeated this year. Excluding the positive extraordinary items associated with CaixaBank's merger (by absorption) with Bankia, the profitability of Spanish banks overall has returned to the pre-pandemic levels.
[7] The improvement in the common equity tier 1 (CET1) ratio was most pronounced between June and December 2020, when it rose by 69 basis points (bp). It then moderated between December 2020 and June 2021, when it stood at 14 bp.

of heterogeneity across banks. Specifically, in the adverse scenario, banks' solvency ratios decrease, but they remain in all cases above the regulatory minimum.

THE GUARANTEE SCHEMES HAVE CONSIDERABLE CAPACITY TO ABSORB LOSSES IN THE ADVERSE SCENARIOS

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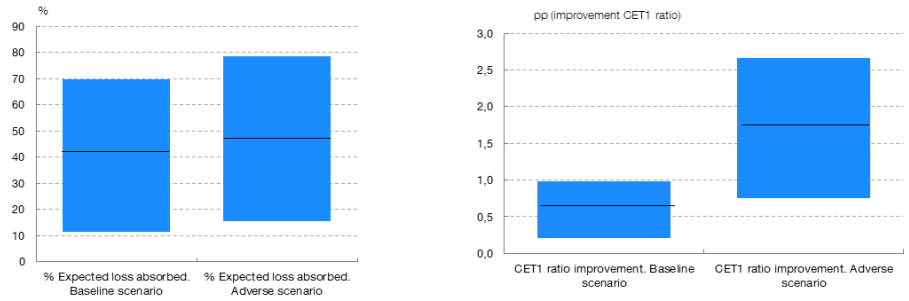
EFFECT OF ICO GUARANTEE SCHEME (a) (b)



SOURCE: Banco de España.

a The main analysis includes the effect of the guarantee scheme under an intermediate scenario.
b The chart shows the range of the scheme's impact on the expected losses of the corporates portfolio (left-hand panel) and on the CET1 ratio (right-hand panel), according to the assumptions on the credit quality of loans extended to firms and sole proprietors in Spain under the ICO guarantee scheme. The minimum effect assumes that the expected loss is equal to the average loss on the corporate credit portfolio, while the maximum effect assumes that NPL inflows are primarily concentrated among guaranteed loans. The black line denotes the mid-range effect.

They also show that the measures taken to mitigate the impact of the crisis and, in particular, the ICO public guarantee scheme have the capacity to absorb a large portion of banks' potential losses. Specifically, this scheme could reduce capital depletion in the adverse scenario by more than 1.5 pp. Naturally, this mitigating impact is not uniform across banks, being greater in those that are most exposed to the sectors most affected by the crisis and to smaller firms.

AT PRESENT WE SEE NO SIGNS OF BUILD-UP OF SYSTEMIC FINANCIAL IMBALANCES

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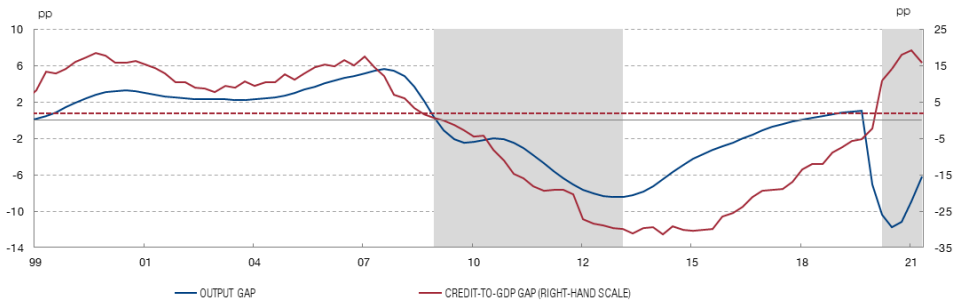
CREDIT-TO-GDP GAP AND OUTPUT GAP (a) (b)



SOURCES: INE and Banco de España.

a The shaded areas denote two periods of financial crisis identified in Spain since 2009: a period of systemic banking crisis (the 2009 Q1 to 2013 Q4 crisis) and the systemic crisis triggered by COVID-19 (2020 Q1 to 2021 Q2).
b The output gap is the percentage difference between actual GDP and its potential value. Values calculated at constant 2010 prices. See Cuadrado and Moral-Benito (2016), Potential growth of the Spanish economy, Occasional Paper No 1603, Banco de España. The credit-to-GDP gap is calculated as the difference in percentage points between the actual ratio and its long-term trend, calculated by applying a one-sided Hodrick-Prescott filter with a smoothing parameter equal to 25,000. This parameter is calibrated to fit the financial cycles observed in the past in Spain (see Galán (2019), Measuring credit-to-GDP gaps. The Hodrick-Prescott filter revisited, Occasional Paper No 1906, Banco de España). Data available to March 2021.

Nor do we see signs of build-up of systemic financial risks. There are certainly some indicators, such as the credit-to-GDP gap, that in Spain are well above the thresholds that suggest the existence of such risks. But the sharp growth in this indicator following the

onset of the pandemic is due more to a sharp fall in GDP (the denominator of the ratio) than to an excessive increase in credit (the numerator). Indeed, we project that it will fall back below the risk thresholds as soon as the recovery in activity becomes firmly established.

In addition, the negative output gap has begun to moderate and, in keeping with the recovery expectations, should gradually narrow in the coming quarters.

NOR DOES THE SPANISH REAL ESTATE MARKET SHOW SIGNS OF BUILD-UP OF IMBALANCES

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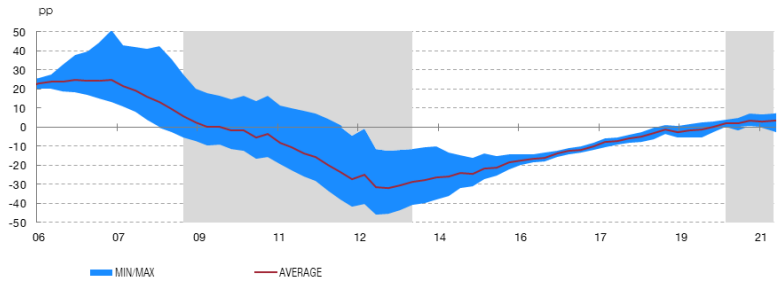
INDICATORS OF HOUSE PRICE IMBALANCES (a)



SOURCES: INE and Banco de España.

a The blue shaded area denotes the minimum and maximum values of four indicators of house price imbalances: i) the real house price gap; ii) the house prices to household disposable income ratio gap; iii) the ordinary least squares model which estimates house prices based on long-term trends in household disposable income and mortgage interest rates; and iv) the error correction model which estimates house prices based on household disposable income, mortgage interest rates and tax effects. The long-term trends are calculated in all cases using a statistical one-sided Hodrick-Prescott filter with a smoothing parameter equal to 400,000.

In the real estate sector, the risks also appear to be contained. The number of housing transactions and the annual percentage change in new mortgage lending have reached high levels in recent months. In addition, between April and June 2021, the quarter-on-quarter increase in house prices was the highest in the last six years. Nevertheless, on the estimates available, house prices show no signs of overvaluation. Moreover, the stock of mortgage credit is not increasing and mortgage lending conditions do not appear to be easing.[8]

Spain's real estate market position contrasts with that of other developed countries which have, in fact, begun the process of macroprudential policy tightening, mainly driven by the alarm signals in their real estate markets.

However, the crisis has compounded some vulnerabilities in the Spanish economy

Although financial stability risks have declined recently, the crisis has heightened certain vulnerabilities in the Spanish economy, such as the high indebtedness of some sectors and firms, the financial fragility of certain households and public debt. The problem of low bank profitability also persists, and some risks remain that should be closely monitored.

[8] For example, average loan-to-price (LTP) ratios have held quite steady in recent months, although for floating-rate mortgages they have tended to dip slightly. Moreover, the proportion of mortgage loans with LTP ratios over 80% has not increased. Interest rate spreads have held steady for floating-rate mortgages, but have narrowed for fixed-rate ones, reaching their lowest levels in recent years. At the same time, maturities have lengthened in this segment and it has grown as a proportion of new lending.

In general, these vulnerabilities raise the probability of risks materialising, they have the capacity to amplify the impact of any shock and they limit authorities' capacity to respond.

Financial weakness of certain firm and household segments

VULNERABILITY IN SOME FIRM AND HOUSEHOLD SEGMENTS: THE IMPACT OF THE CRISIS HAS BEEN HIGHLY UNEVEN ACROSS SECTORS ...

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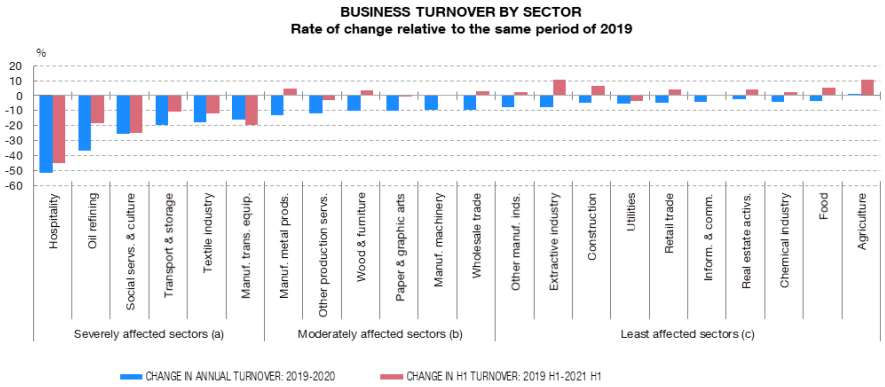

SOURCES: AEAT and Banco de España.

a Economic sectors severely affected: those whose turnover fell by more than 15% in 2020.
b Economic sectors moderately affected: those whose turnover fell by more than 8% but less than 15% in 2020.
c Economic sectors least affected: those whose turnover fell by less than 8% in 2020.

First, it must be borne in mind that the effect of the crisis continues to be highly unequal. In particular, the value added[9] of sectors that require greater social interaction and of those more involved in global value chains is still very much below the 2019 level.[10] In addition, sales and profitability in these sectors are still below their pre-pandemic levels. Thus, on Central Balance Sheet Data Office Quarterly Survey (CBQ) data, during the first half of 2021 the percentage of firms with negative ROA was still 5 pp higher than in 2019.

Moreover, the sectors that increased their indebtedness during the crisis and that have greater – observed and latent – credit impairment are those that were hardest hit by the pandemic.

[9] Labour Force Survey data show that employment in the third quarter was still below its pre-crisis level in industry (-3.1%) and market services (-0.9%). The gap was particularly large in hospitality (-10%) and retail (-2.9%).
[10] Fortunately, these sectors account for a modest percentage of Spanish GDP and of banks' credit exposures.

... AND ACROSS HOUSEHOLDS, ...

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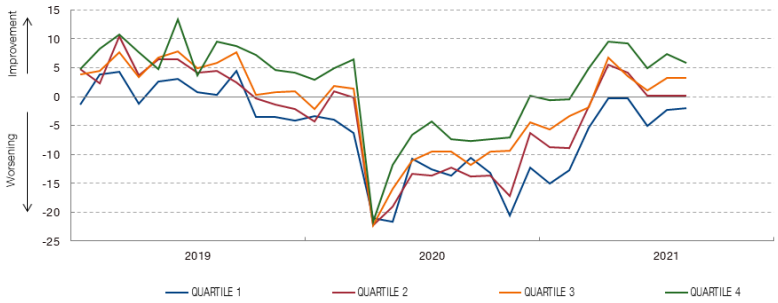
EXPECTATIONS FOR THE ECONOMIC SITUATION OF HOUSEHOLDS FOR THE NEXT 12 MONTHS, BY INCOME QUARTILE (a)



SOURCES: Ministerio de Inclusión, Seguridad Social y Migraciones, European Commission, INE and Banco de España.

a Indicator = percentage of households expecting their economic situation to improve significantly × 1 + percentage expecting their economic situation to improve somewhat × 1/2 – percentage of households expecting their economic situation to worsen somewhat × 1/2 – percentage expecting their economic situation to worsen significantly × 1.

The effects of the crisis on households are also uneven. For example, on Labour Force Survey data published last week, comparing current employment with that observed in the third quarter of 2019, the impact of the crisis remains high, both for temporary workers, where employment is 1.9% lower than two years ago (compared with an increase of 1.6% for permanent workers), and for workers with a lower level of education (14.1% lower).

In keeping with this heterogeneity, most households expected their economic situation to improve over the next 12 months,[11] but not households in the bottom income quartile who expected their economic situation to worsen.

Likewise, households' borrowing decisions have also diverged. In general, the households most likely to have taken on debt or to have had greater access to credit since the start of the pandemic are higher income households, especially those in the top income quintile, and those hardest hit by the crisis.[12]

At the same time, there has been a highly significant increase in saving across all household income quartiles, albeit to a lesser extent among lower income ones.

... AND HAS ALSO AFFECTED BANK CREDIT QUALITY

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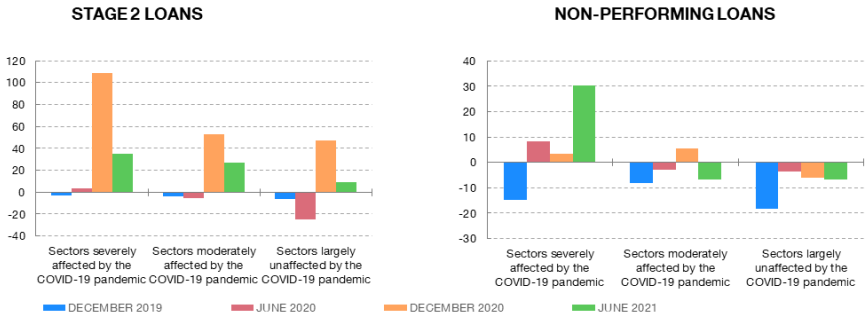
SIX-MONTHLY RATE OF CHANGE OF STAGE 2 LOANS AND NPLs. NFCs AND SOLE PROPRIETORS
Business in Spain, ID (a)



SOURCE: Banco de España.

a Lending to the more severely affected sectors is proxied by that corresponding to sectors with a fall in turnover of more than 15% in 2020 that can be identified in the FI-130 regulatory return. These include hospitality, oil refining, social services and entertainment, transportation and storage, and the manufacture of transport equipment. Lending to moderately affected sectors is proxied using the following sectorisation in the FI-130 regulatory return: metallurgy, manufacture of machinery, other manufacturing activities, professional services, mining and quarrying, wholesale and retail trade, and repair of vehicles. All other productive activities make up the largely unaffected sectors.

This heterogeneity is now passing through to credit quality. Specifically, Stage 2 loans have increased substantially (53%) over the last 12 months, while at June 2021 forborne loans had risen by 8.8% year-on-year. This deterioration was concentrated in the economic sectors most severely affected by the pandemic, and is occurring in a setting in which there are still significant extraordinary support measures in place, including moratoria in some insolvency proceedings.

At June 2021, 20% of loans linked to expired or cancelled moratoria were Stage 2 loans, while 9% were non-performing. Moreover, this deterioration could increase in the coming quarters, as a large proportion of moratoria expired in the second quarter of 2021. Nevertheless, it is important to note that loans subject to moratoria account for a small percentage of banks' portfolios.

Lastly, as regards the situation of ICO-guaranteed loans granted to non-financial corporations and sole proprietors, Stage 2 loans accounted for 16% of the credit drawn, an increase of 8 pp. Once again it must be borne in mind that a large portion of ICO-backed loans currently have payment holidays, which reduces the materialisation of credit risk in the short term, but could prompt greater risk in the medium term. In this respect, NPL rates in this portfolio are lower than at the aggregate level, but the proportion of Stage 2 loans is much higher.

Overall, these data suggest that there are firm and household segments that are financially fragile. Especially in low economic growth scenarios, this could prompt credit quality deterioration which could, in turn, require additional provisioning by some banks in the coming years. In any event, the potential scale of this provisioning effort is highly uneven across banks.

Deterioration in public finances

VULNERABILITY OF PUBLIC FINANCES. THE GOVERNMENT DEBT-TO-GDP RATIO HAS RISEN BY MORE THAN 25 POINTS DURING THE PANDEMIC

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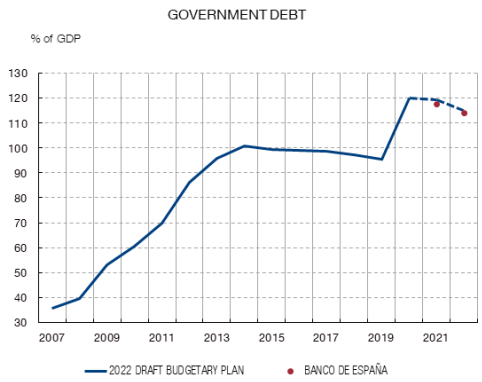

BREAKDOWN OF CHANGE IN GENERAL GOVERNMENT DEBT ACCORDING TO 2022 DRAFT BUDGETARY PLAN

	2020	2021	2022
Debt as % of GDP	**120.0**	**119.5**	**115.1**
Change in debt (in pp of GDP)	**24.4**	**-0.4**	**-4.5**
Owing to:			
Balance	8.7	6.2	3.0
Interest payments	2.2	2.1	2.0
Nominal rate of change of GDP	10.4	-8.7	-9.5
Flow-stock adjustment	3.0	-0.1	0.0

SOURCES: 2022 Draft Budgetary Plan and Banco de España.

Second, and as a side effect of the measures taken to mitigate the impact of the economic crisis and its effect on households and firms, public finances have deteriorated significantly.

Specifically, the general government deficit reached 11% of GDP in 2020 and, at August 2021, it still stood at 8.3% of GDP in cumulative 12-month terms. The draft State budget estimates that it will reach 8.4% of GDP in 2021 and will fall by 3.4 pp, to 5%, in 2022. The estimates available show that a large part of this budget deficit has a structural component, and the impact of population ageing on certain public expenditure items, such as pensions and health care, must not be overlooked.

The government debt-to-GDP ratio stood at 123% of GDP in June, more than 25 points above the pre-crisis level. For 2022, the draft State budget estimates that it will fall to 115% of GDP as a result of nominal output growth.

The expansionary fiscal policy was clearly necessary during the crisis. Indeed, without the measures adopted, the impact of the crisis on activity and unemployment would have been much greater, and its effects much more persistent, resulting in an even more severe impact on public finances.

In the short term, the ECB's expansionary monetary policy has limited the impact on the cost of financing government debt, and the relatively long repayment periods will mitigate the immediate impact of a potential tightening of financing conditions.

Yet a high level of government debt limits the capacity of fiscal policy to respond in the event of materialisation of new shocks and makes the Spanish economy vulnerable to a potential deterioration of market financing conditions.

A FISCAL CONSOLIDATION PLAN MUST BE CAREFULLY DESIGNED AND ANNOUNCED, READY TO BE GRADUALLY IMPLEMENTED ONCE THE CRISIS IS OVER

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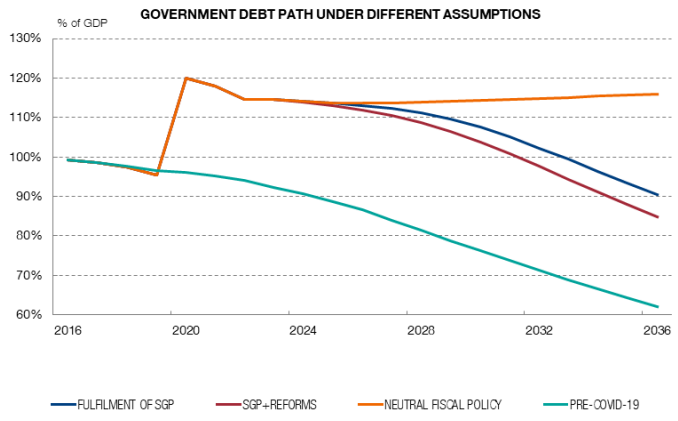

SOURCE: Banco de España.

In this respect, in accordance with the simulation exercises performed by the Banco de España, under certain prudent assumptions on economic growth and interest rate developments, an ambitious fiscal consolidation programme would be needed to

significantly reduce the government debt ratio, and would be especially positive if it were accompanied by structural reforms to boost potential growth.

Low profitability of financial institutions

ROE EXCEEDED COE IN THE FIRST HALF OF 2021, ON THE BACK OF THE RECOVERY IN PROFITABILITY IN SPAIN AND EXTRAORDINARY ITEMS

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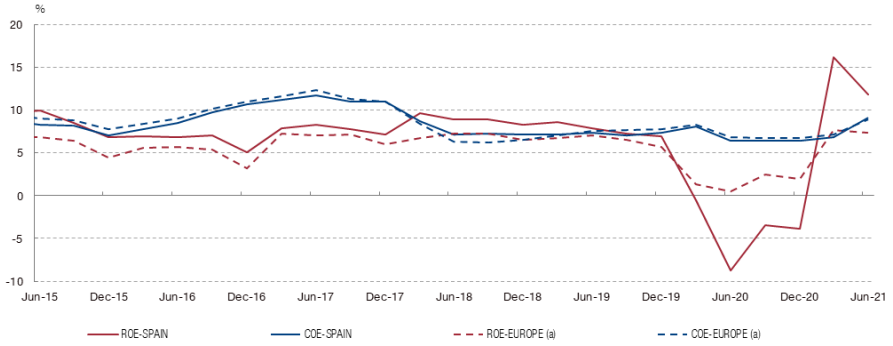
RETURN ON EQUITY (ROE) AND COST OF EQUITY (COE) IN SPAIN AND EUROPE



SOURCE: EBA, Datastream and Consensus Economics.

a The ROE data for Europe are taken from the EBA's Risk Dashboard and, therefore, are for the European Union. The COE data are for the euro area.

A third source of vulnerability with potential implications for financial stability is the low profitability of financial intermediaries. Despite having returned to its pre-crisis levels, profitability remains low, in Europe and also in Spain, when compared with that obtained in other economic sectors or by banks in other geographical areas, such as the United States and the Nordic countries. In particular, the challenges to cover the cost of capital that investors demand will remain when the extraordinary negative (2020) and positive (2021) temporary effects on profitability disappear.

In the medium term, apart from the existence of latent credit portfolio deterioration as I mentioned earlier, it is highly likely that the structural challenges to profit generation in the banking sector will persist, including in particular the low interest rate environment, growing competition from tech firms, the increase in cyber risk and the potential negative effects associated with climate-related risks.

FIRST RESULTS OF THE STRESS TESTS TO MEASURE RESILIENCE TO ENVIRONMENTAL TRANSITION RISKS IN SPAIN

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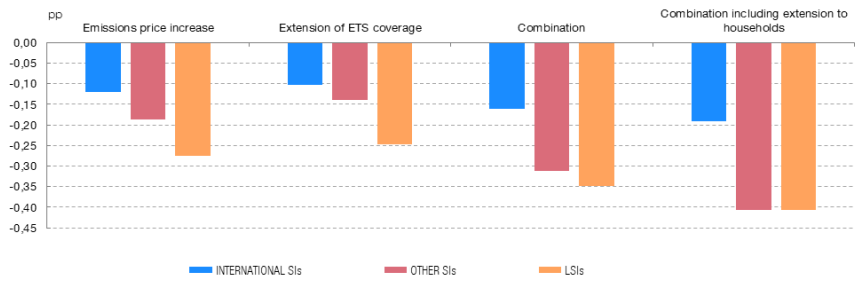
EFFECT OF TRANSITION COSTS ON THE PROFIT AFTER TAX TO RWA RATIO (a) (b) (c)



SOURCE: Banco de España.

a The bars depict the difference in the profit after tax to RWA ratio between the corresponding scenario and the baseline scenario, for each of the three groups of institutions.
b The effects of the transition costs are calculated under four alternative scenarios: the first considers an increase in CO_2 emission allowance prices from $25 to $100; the second considers the extension of ETS coverage to all firms; the combination scenario simultaneously considers the CO_2 emission allowance price increase and the extension of ETS coverage to all firms; and the fourth considers ETS coverage also being extended to households.
c To calculate the ratio, the numerator (profit after tax) is cumulative for the three years considered, while the denominator reflects the value of average RWAs in the same period.

From the standpoint of a financial supervisor, we recognise that climate change may have significant effects for financial stability, associated with the potential materialisation both of physical and transition risks. This is why we are making great efforts to assess these risks and to ensure that banks include them in their decision-making.

Specifically, the ECB has recently published the results of its economy-wide climate stress tests which assessed the impact of climate change on some four million firms worldwide and 1,600 euro area banks, including both the physical and transition risks, over a 30-year horizon.

The results of these tests show that, from the financial stability standpoint, the long-term benefits of adopting measures that encourage the transition to a zero-carbon economy far outweigh the short-term costs of this transition. They also show that the sooner economic policy actions are taken, the greater the benefits.

Moreover, if climate change is not mitigated, the effect of the materialisation of physical risks would be enormous and would be concentrated in certain geographical areas. This would translate into large losses, especially for the most exposed credit institutions.[13]

The Banco de España has also undertaken top-down stress tests to assess the Spanish banking sector's resilience to climate-related transition risks. The first results, to be published shortly in our Autumn 2021 Financial Stability Report and Financial Stability Review, show a moderate, albeit uneven, impact on the probability of default in different economic sectors and, therefore, on the profitability of Spanish credit institutions. Once again, these simulations demonstrate the extremely significant potential economic impact of the materialisation of physical risks.

[13] In these stress tests, credit institutions' possible response to the materialisation of risks was not modelled, as the aim was to show what would happen if no steps were taken.

In addition to these vulnerabilities, other sources of risk are identified stemming from a potentially slower recovery or a tightening of financing conditions

RISKS TO RECOVERY: THE COURSE OF THE PANDEMIC, MANUFACTURING SUPPLY AND DEMAND MISMATCHES, AND THE RISE IN INFLATION

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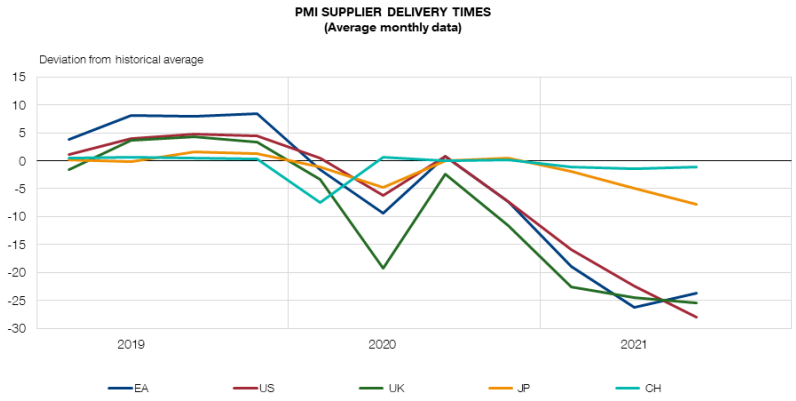

SOURCES: Our World in Data, Markit, Eurostat, Refinitiv, ECB and IMF.

As I indicated earlier, since the spring activity has returned to a recovery path, as the vaccination campaign has advanced, and the macroeconomic projections expect this recovery to continue in the coming quarters.

Yet the risks to this baseline scenario remain on the downside. Specifically, apart from the possibility of the pandemic taking a more adverse than expected course, there have been some changes in the global economic environment in recent months that have gained greater importance in recent weeks. I refer to global supply chain disruptions and the rising costs of certain intermediate goods used in production processes, and especially the cost of energy (which is also a very important component of the household consumption basket). Overall these new factors tend to point to a certain worsening of the global economic environment.

Indeed, the swift recovery of global demand, added to the high manufactured goods consumption caused by the pandemic as a substitution for spending on restricted services and a reflection of the acceleration of the digitalisation process, has created tension in global supply chains and considerable disruption in international maritime transport. This has driven up costs significantly and has given rise to supply delays. The supply shortage has translated into bottlenecks in industry which have had most impact on the developed economies.

In this setting, the flash composite output PMI for the euro area fell by almost 2 points in October, to 54.3, which is a 6-month low. Although the sharpest fall was in manufacturing (down 2.5 points in October, to 53.2, a 16-month low), the services sector also lost momentum (down 1.7 points, to 54.7, a 6-month low).

In Spain, global supply chain disruption has already translated into significantly longer delivery periods for industrial orders and, in some cases, in the need to reduce the rate of production, as a consequence of the shortage of raw materials and inputs. The car industry, which is one of those most affected by the global shortage of semi-conductors, is a prime example.

Moreover, where the supply of goods and services has proved insufficient to meet demand, prices have risen. This has been particularly noticeable in the case of various industrial metals and transport, and in primary energy sources, such as oil, gas and coal, and secondary energy sources, such as electricity, part of which is generated using some of these primary sources. These price rises have been passed through to final prices paid by households and firms, compressing their real income and, therefore, negatively impacting the rate of recovery.

Our view is that the current uptick in inflation is fundamentally due to temporary factors. But these factors could prove more persistent than was initially estimated. Accordingly, in the coming months, we may continue to see relatively high inflation rates.

The increase in inflation stems, first, from the shutdown of certain productive activities as a means to contain the pandemic, which prompted, especially in the first half of 2020, significant falls in the prices of certain goods and services. The subsequent recovery of pre-crisis prices, as the economy reopened, has driven up the inflation rate. Examples of this effect are oil prices and prices in sectors where personal contact plays a more important role. In principle, these price rises should be purely temporary and should not continue past the date at which the base effects disappear from the calculation of the year-on-year rate.

Secondly, as I mentioned earlier, energy goods are seeing additional price rises, making recent developments more persistent. In principle, these increases are expected to be temporary, as shown by the futures market prices of these commodities, which point to a decline throughout 2022. But we cannot rule out the possibility that energy prices may continue to rise in the coming months, given that energy consumption increases during the winter, in a setting in which both oil and gas inventories are relatively low.

In addition, this increase in energy prices is also affected by a complex set of more structural factors, both on the demand and the supply side. These include the policies of the main oil and gas producer countries, and the slowdown in investment in fossil fuels in view of their uncertain future, given the policies in place to fight climate change to which I referred earlier.

Lastly, in the case of various non-energy industrial goods, global production chain disruptions and price rises in many intermediate products, commodities and transport have added to the recovery in demand. Some of these higher costs are being passed through to the sale prices of final products. In principle, these global production chain disruptions should gradually disappear over the coming year.

In short, as these factors gradually normalise, inflation will decline over 2022, as reflected by consumers' expectations and analysts' projections, which expect inflation to lie below the ECB's goal of 2% over the medium term.

In any event, there is significant uncertainty over the duration of the current inflationary episode. And, clearly, the longer it lasts, the greater the likelihood that it will be more persistent, as higher costs filter through to final prices and higher prices give rise to higher wage demands. Yet this potential scenario is not inevitable. On the contrary, as I will say later, the actions taken by national economic agents, in both the public and the private sector, can help reduce its possible effect.

When assessing the possible effect of the inflationary uptick in the medium term, it is important to take as a starting point the disinflationary pattern observed for much of the last decade, which gave rise to very low rates of change in prices. In particular, one of the characteristics of the disinflationary process of the pre-pandemic years was the apparent weakening of the connection between the degree of cyclical slack and growth in prices and wages. Various arguments have been wielded to try to explain this global pattern, including globalisation, the automation of production processes or the expansion of e-commerce, which have moderated workers' wage demands and also firms' capacity to grow their margins. In recent years demographic changes, which per se present a very high level of inertia, have also helped keep demand pressures relatively low.

In my view, it is too soon to consider that the future incidence of the above-mentioned factors will decline post-pandemic and, therefore, that the recent uptick in inflation may reflect a turnaround in the low inflation pattern that prevailed for approximately a decade.

Similarly, it is important to note that the main factors responsible for the low equilibrium real interest rates observed in recent years are our modest productivity growth, low population growth and population ageing, and the high demand for risk-free assets.

In any event, the inflationary risks mentioned are connected, in turn, with the risk of a potential deterioration of financing conditions and a correction of financial asset values.

THE UPTICK IN INFLATION IS CONSIDERED TO BE ESSENTIALLY TRANSITORY, BUT LONGER LASTING THAN WAS INITIALLY ESTIMATED

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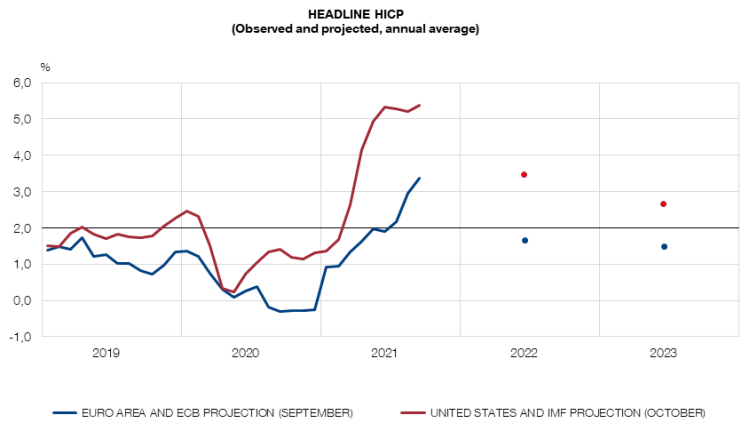

Globally, there is still a gap between the prices of risk-bearing financial assets and some of their historical determinants, such as corporate profitability. This does not appear to be the case in Spain, but if these values were to correct in other geographical areas, especially in those that account for the bulk of international investment flows, the close connections between agents and markets could extend this trend to all markets.

The low level of long-term real interest rates is clearly an important factor underpinning these values. Accordingly, were monetary stimulus measures to normalise faster than expected by the markets, asset prices could correct.

Indeed, volatility has increased since August, in a setting in which financial markets perceive an increase in upside risks to inflation in the medium term and investors are beginning to factor in a possible withdrawal of some of the monetary stimulus measures by the main central banks. Thus, long-term sovereign debt yields have risen since August, although corporate and sovereign risk premia have remained low, despite the recent increase in sovereign risk premia in several euro area countries (especially Italy), and long-term real interest rates are close to their all-time lows.

RISK OF OVERVALUATION OF ASSETS IN SOME JURISDICTIONS

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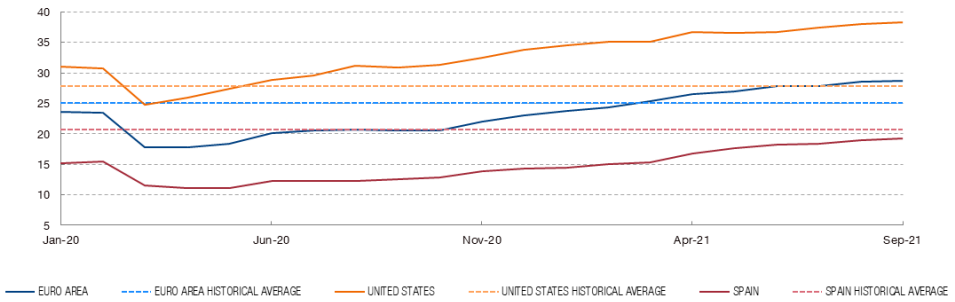
CYCLICALLY-ADJUSTED P/E RATIO (a)



SOURCES: Refinitiv Datastream and Banco de España.

a The cyclically-adjusted P/E ratio is calculated as the ratio of the share price to the 10-year moving average of earnings. The historical averages are calculated for the period 1997-2021.

In the present setting, economic policy continues to play a crucial role

The swift and forceful economic policy response since the onset of the pandemic has been crucial to limit both the impact of and the fallout from the crisis. The monetary and fiscal policies adopted enabled households and firms to conserve a high proportion of their income and helped mitigate the negative impact of the pandemic on their financial position. These measures also prevented major damage to the productive system and the materialisation of financial stability risks.

The present and expected future setting is marked, as I mentioned earlier, by a gradual recovery in activity, but this recovery is still subject to various key risks and is highly

conditioned by economic policy support. For this reason, in my opinion, monetary and fiscal policies must guard against a premature withdrawal of the stimulus measures.

As regards monetary policy, the latest decisions of the ECB's Governing Council, including the new monetary policy strategy, ensure that favourable financing conditions will remain during the economic recovery.

In particular, the ECB's new strategy, announced on 8 July, sets an inflation objective of 2% over the medium term. This objective is symmetrical, that is, deviations above and below the target are considered equally undesirable. To maintain this symmetry, the new strategy recognises the importance of bearing in mind the implications of the lower bound on interest rates. In particular, the new strategic framework establishes the need for especially robust and persistent monetary policy measures when the economy is close to that lower bound. This may also entail a transitory period in which inflation lies moderately above the objective set.

This new strategic framework was first applied to the ECB's monetary policy toolkit on 22 July when the forward guidance was issued. According to the new guidance, the Governing Council expects the ECB's policy interest rates to remain at their present or lower levels until it sees inflation reaching around 2% well ahead of the end of its projection horizon and durably for the rest of that horizon, and until the progress observed in underlying inflation is sufficiently advanced to be consistent with inflation stabilising at 2% over the medium term.

THE RISE IN DEBT YIELDS IN 2021 ILLUSTRATES THE VULNERABILITY IN THE FACE OF CHANGES IN FINANCING CONDITIONS

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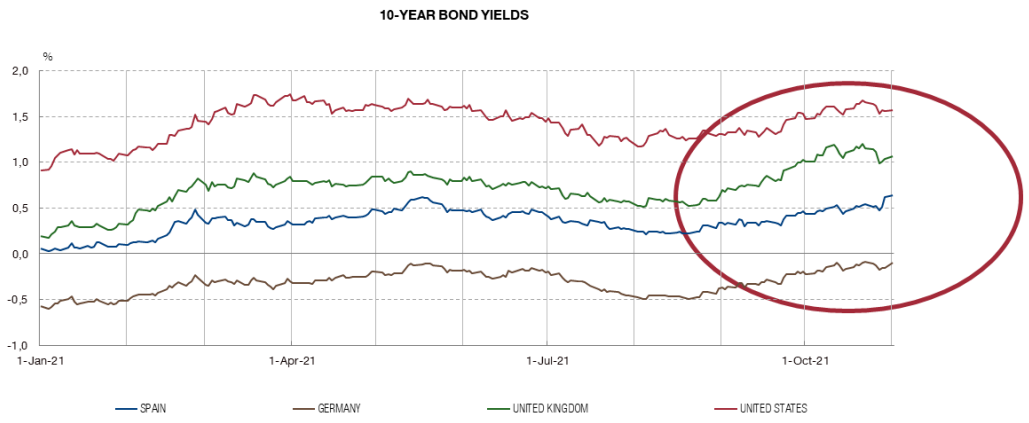

SOURCE: Refinitiv Datastream. Last observation: 01/11/2021.

Accordingly, the new guidance on the conditions that will govern future interest rate decisions, together with the perception that the present inflationary episode is predominantly transitory, leads to the expectation that our monetary policy stance will remain expansionary for some time. In this respect, as underlined by the ECB's President Christine Lagarde at the press conference following the ECB's Governing Council meeting

last week, our analysis does not consider that the conditions I have just mentioned regarding our forward guidance will be fulfilled by the third quarter of 2022, which is when the financial markets are currently anticipating the first interest rate rise. Nor does it expect these conditions to be fulfilled soon after date.

In short, given the information available, we at the ECB are determined to continue providing the necessary monetary stimulus measures so that, in the medium term, inflation can reach the 2% objective on a lasting basis, without reacting prematurely to transitory shocks.

As regards macroprudential policy, as I indicated earlier, the absence of emergency systemic risk warnings in Spain means that our policy stance can continue to back the consolidation of the economic recovery, even though we will have to continue to monitor the various sources of risk identified.

In the case of the banking sector, the remaining uncertainties should encourage banks not to rush into reverting last year's provisions but to wait until they are fully confident that the credit portfolio will evolve favourably. Spanish banks must also continue their efforts to strengthen their solvency position, given that the gap with their European peers remains. Clearly, there are reasons to explain part of this gap, such as the lesser use of advanced internal models to calculate capital requirements. In addition, the business model of Spanish banks, especially the more global ones, is marked by higher recurring earnings generation.

Also, were the recent expansionary real estate market developments to consolidate over time, we would have to reassess our risk diagnosis. In this respect, the Banco de España is about to approve a circular that provides new macroprudential tools to tackle the potential future build-up of real estate market risks.

Fiscal policy support will remain necessary in 2022, albeit with a more selective approach, focused on the firms and population groups that are still feeling the effects of the crisis.

The selective nature of this fiscal policy support is warranted by the need to minimise the impact of the significant increase in budgetary imbalances built up during the crisis and to ensure that economic policies do not hinder the necessary reallocation of resources. It is important, therefore, that these measures be temporary, so as not to add to the structural budget deficit.

The increase in inflation is a further argument for selective fiscal support rather than a widespread fiscal impulse that could amplify the existing bottlenecks in the most stressed sectors and ultimately filter through to prices.

At the same time, as I mentioned earlier, work needs to begin on the design of a fiscal consolidation programme that will allow the high government debt and budget deficit levels to be gradually reduced, to be implemented once the recovery has gained a sound footing.

The medium and long-term effects of the crisis will also depend on the extent to which firms adapt to the new economic reality. Economic policy must facilitate this adaptation. This will require enabling the use of the adjustment mechanisms available under existing legislation

– particularly labour legislation – and ensuring that they are tailored to firms' specific conditions. In addition, court and out-of-court debt restructuring proceedings, which currently present certain operational shortcomings, must be improved. When they function efficiently, these proceedings fulfil an important economic function, allowing viable firms that are facing solvency difficulties to survive and providing for the orderly market exit of those that are non-viable.

From the employment standpoint, to reduce the potentially structural damage of the crisis, training policies and help for job seekers must be strengthened, to smooth the reallocation of workers who have lost their jobs to sectors with a post-pandemic future.

In any event, apart from these short-term challenges, the Spanish economy faces very important structural challenges. Some of these, such as our low productivity, the inappropriate functioning of our labour market, the fight against climate change, population ageing and high inequality, already existed before the crisis. Others, such as those stemming from digitalisation, have emerged or intensified as a result of the pandemic. All these challenges can only be addressed with a decisive structural reform agenda, underpinned also by the European funds.

Lastly, I wish to mention the challenge posed by the backdrop to the present surge in inflation. Firms and workers need to internalise the essentially transitory nature of some of the main factors behind the current rise in prices. They need to seek a fairer distribution of the diminished income in the national economy vis-à-vis the rest of the world that the recent cost increases entail, concentrated in many cases on goods and services that our economy demands but does not produce. Otherwise, we might fuel a price-cost feedback loop, with adverse effects for competitiveness, economic activity, and, ultimately, our personal well-being.

Thank you.