



Financial Stability Note

No. 26, June 2024



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The Financial Stability Note is one of the CNMV's duties within the framework of its monitoring of financial stability conditions in the areas it supervises. In particular, the Note assesses the stress level of **domestic securities markets during the past half-year**, flags any changes in the level of various financial risks and identifies major sources of risk.

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ISSN (digital edition): 25030-7827

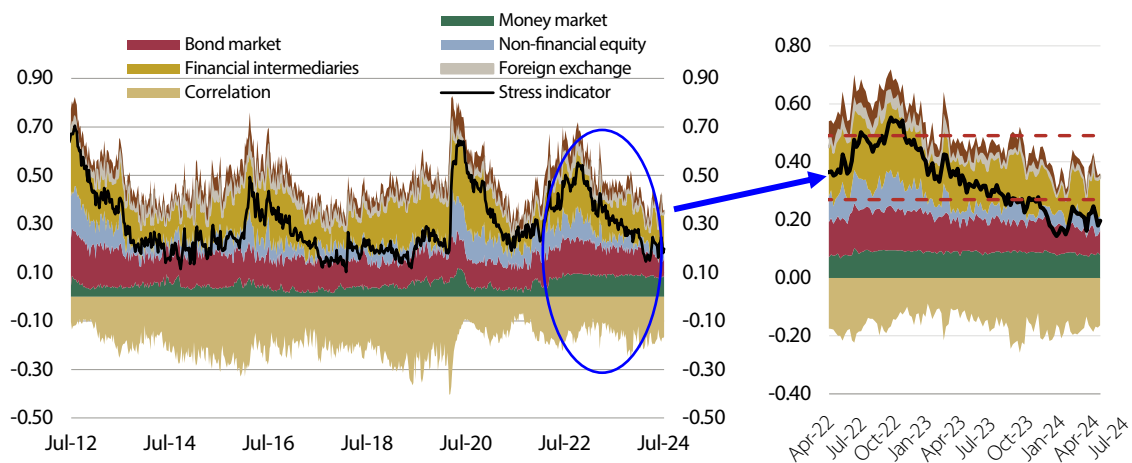
Layout: Cálamo y Cran

Summary

- ✓ **Stress in Spanish financial markets remains at low levels.** During the first half of the year, the indicator has stayed within the low-stress regime (below 0.27). In the first quarter, the stress level showed a clear downward trend, dropping from 0.28 to an annual low of 0.15 in March. However, the second quarter was more erratic, affected by falling stock prices and a slight increase in market volatility. As of early July, the indicator stood at 0.20.¹ The most stressed segments at mid-year were the money and bond markets, driven by higher interest rate volatility and the widening of some risk premiums, as well as financial intermediaries (banks). The latter experienced a significant decrease in stress levels during the first few months of the year. However, the emergence of domestic uncertainties and some contagion from the French banking sector (due to its exposure to sovereign debt) raised the stress level in this segment to nearly 0.45. Finally, the degree of system correlation remains at medium-high levels.

Stress indicator of the Spanish financial markets

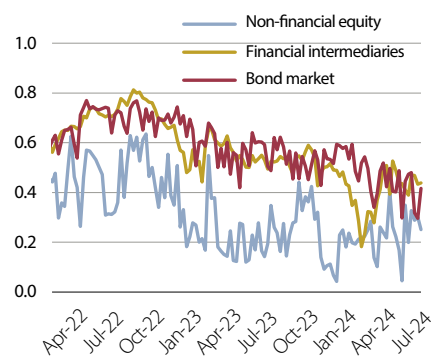
FIGURE 1



Total stress indicator



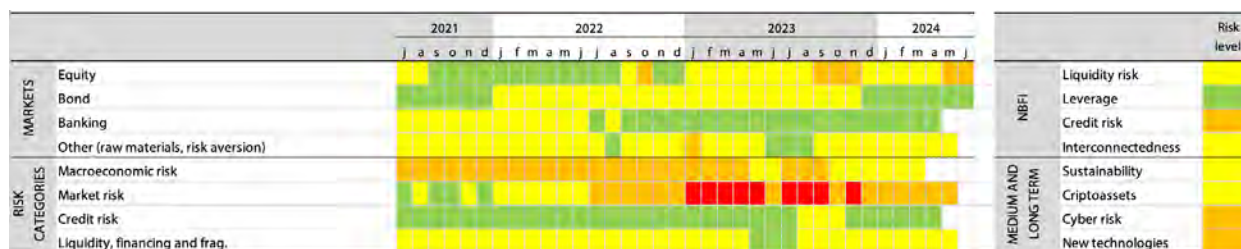
Indicators in the bond, financial intermediary and equity segments



Source: CNMV.

For more details on the recent movements in this indicator and its components, see the statistical series of the CNMV (Market stress indicators), available at: <http://www.cnmv.es/Portal/Publicaciones/SeriesWeb/Inicio.aspx?codrama=1295>. For further information on the methodology of this indicator, see Cambón, M.I. and Estévez, L. (2016). (2016). "A Spanish Financial Market Stress Index (FMSI)". *Spanish Review of Financial Economics*, Vol. 14, No. 1, pp. 23-41, or as CNMV Working Document No. 60, available at: http://www.cnmv.es/DocPortal/Publicaciones/MONOGRAFIAS/Monografia_60_en.pdf.

¹ The closing date of this note is 28 June, except for the stress indicator, which is 5 July, and other specific data.



Source: CNMV. See Cambón, M.I. (2015). "Identification of vulnerabilities in the Spanish financial system: an application of heat maps". *CNMV Bulletin*, Quarter I, pp. 103-115.

¹ Data to 28 June. The colours of the risk levels on the right side of the map correspond to the current assessment of these risks. In the case of non-bank financial intermediation (NBFI), this assessment comes from the NBFI Monitor published by the CNMV.

Sources of risk

- **Geopolitical risk** remains one of the main threats to the current international economic and financial landscape. This risk encompasses the ongoing wars in Russia and Ukraine and in the Middle East, as well as uncertainty surrounding the outcomes of various elections in Europe and the United States, and the trade war between China and several economic regions, including Europe. All these factors can negatively impact commodity markets, freight transport, and investment volumes, potentially causing turbulence in financial markets.
- Despite expectations of rate cuts, the **maintenance of interest rates at elevated levels** – compared to those in the recent past – which is inferred from the latest moves and statements by central banks, also remains a significant source of risk due to its implications for funding costs. This is particularly concerning for the most indebted and financially vulnerable agents, as well as those needing to borrow or refinance in the short term. Nonetheless, the depreciation of fixed income portfolios observed during the period of rising rates has eased considerably.
- The uncertainty related to the **outlook for the domestic economy** has decreased, following the dynamism recorded by the main indicators and the upward revisions of past growth rates, as well as those forecast for this year (which are close to 2.5%). However, doubts remain about the sustainability of growth in some sectors, and vulnerabilities associated with public sector finances persist due to the still high level of debt. The ongoing consolidation process is expected to reduce the debt level to 106% of gross domestic product (GDP) and the government deficit to levels close to or slightly above 3% of GDP by 2024.
- The **expansion of the new technology sector and the associated risks remain high**. These risks, including cyber risks and those related to cybersecurity, as well as those arising from the use of generative artificial intelligence and other forms of artificial intelligence in finance, should continue to be closely monitored. **In the area of crypto-assets**, the recent approval of the first bitcoin ETFs in the United States could increase the interconnection between this sector and the traditional financial system, although this risk remains at a low level.

Assessment of the main risks

- Among the **categories of financial risks** assessed, **market risks** in the equity sector remain the most significant, although these have been mitigated in the fixed income sector. In this context, investors may be underestimating certain risks which, if they materialise, could lead to a sharp correction in asset prices. **Credit risk** remains high due to interest rates staying at relatively elevated levels. The risk of contagion also remains significant.
- In the area of non-bank financial intermediation, particularly investment funds, the **assessment of liquidity and leverage risk does not reveal any significant vulnerabilities** in terms of financial stability. The results of stress tests conducted on these institutions are consistent with this assessment.
- Among the **medium and long-term risks, those related to cybersecurity and the use of crypto-assets are particularly noteworthy**. Additionally, the growing application of artificial intelligence to finance presents implications for financial stability that are still complex to evaluate.

Stock market developments

- The **equity markets**, which had started the year with notable gains, showed less pronounced advances in the second quarter, and even declines in many indices following the realisation that interest rate cuts would be smaller and later than expected, as well as the emergence of various geopolitical risks. Against this backdrop, the Ibx 35 rose by 8.3% in the first half of the year, placing it at the higher end of performance among European indices. There was an increase in trading activity, and liquidity conditions remained satisfactory. In the primary markets, the volume of issuance increased to 6.221 billion in the first half of the year, almost three times higher than in 2023.
- **Fixed income markets** halted their decline in yields at the end of 2023 and have shown increases so far this year, particularly at longer maturities, due to the shift in expectations regarding rate cuts. In Europe, 10-year sovereign bond yields have risen by between 35 basis points (bp) in Italy and 73 bp in France. In Spain, the increase was 42 bp to 3.4%. Risk premiums on European sovereign debt also saw a slight rise, driven by certain political and fiscal uncertainties. In the primary markets, debt issuance by Spanish issuers declined in the first half of the year (-28% to €87.40 billion), with the decrease being more pronounced in domestic activity and shorter maturities.

Recent activity in the field of asset management and investors

- **The household savings rate continues to rise (12.2% of disposable income), significantly narrowing the gap with the euro area average.** Households' financial decisions continue to show a preference for interest rate-linked assets such as time deposits, sovereign debt, and fixed income investment funds.
- **In the area of collective investment, there was further expansion in the sector's assets, driven by both net subscriptions from unitholders and portfolio appreciation.** Funds with sustainability features (those covered by Articles 8 and 9 of the European Sustainability Disclosure Regulation, known as SFDR) have stabilised their assets at around 35% of the total.
- **The participation of retail investors in the equity market continues to increase.** Retail investors accounted for 7.9% of purchases and 9.7% of sales in Ibex 35 shares (compared to 7.5% and 9.1%, respectively, in 2023). The investment opportunities offered by new technologies partly explain this trend.

Sources of risk

Geopolitical risks and other sources of political uncertainty: *still at very high levels*

- **Geopolitical uncertainties remain at very high levels, as in previous quarters.** This ongoing situation is primarily due to the prolonged armed conflicts in Ukraine and the Gaza Strip, as well as the elections in the United States and Europe, some of which have concluded, while others are expected in the coming weeks or months.
- **The risk from Russia's invasion of Ukraine remains critical, with escalating tensions between Russia and the North Atlantic Treaty Organisation (NATO).** Meanwhile, the military conflict between Israel and Hamas continues at very high levels of tension following unsuccessful negotiation attempts. The negative impact on markets may increase if additional military groups from other countries in the region get drawn into the conflict.
- **The recent elections to the European Parliament highlighted a rise in the influence of Eurosceptic parties, at the expense of pro-European forces.** These elections also led to the dissolution of the French National Assembly and the calling of early elections, following the poor performance of the previously dominant party. These events caused several days of market uncertainty and resulted in slight increases in sovereign risk premiums.
- **The United States is currently navigating a crucial election period,** the outcome of which will shape its domestic and international policies, particularly its fragile relations with China. Taiwan plays a critical role in this context, especially following the recent proposed US aid bill for Taiwan. This situation could lead to a loss of confidence and increased risk aversion among market participants, potentially causing negative spirals in financial markets.
- **In the case of the Chinese economy, the latest results show annual growth of 5.3% in the first quarter.** These figures have exceeded most forecasts and could indicate signs of stabilisation as China attempts to overcome its real estate and deflationary crisis. However, the trade balance data does not entirely reflect these positive figures. Although exports increased by 4.9% in the first three months of the year, they fell by 7.5% in March, with exports to the United States and the European Union dropping by 16% and 15%, respectively. Monitoring China's economic developments remains crucial in order to prevent potential knock-on effects on other economies, given its significant international influence.
- **Political uncertainties also persist at the national level.** Some of these uncertainties stem from the high degree of parliamentary fragmentation, which may impede decision-making processes. Others arise from the results of the recent parliamentary elections in Catalonia and the delay in forming a government. This uncertainty could become a source of risk for financial markets if a significant shock occurs.

Interest rate environment: *at high levels*

- **On 6 June, the Governing Council of the European Central Bank (ECB) decided to reduce key interest rates by 25 bp.** As a result, the interest rates on the main refinancing operations, the marginal lending facility, and the deposit facility now stand at 4.25%, 4.50%, and 3.75%, respectively. This reduction occurs against a backdrop of moderate underlying inflation and marks a departure from the recent upward trend, which had pushed interest rates to their highest levels in decades. The ECB's most recent projections indicate that while inflation will continue to moderate, it will remain above the target until the end of 2025. Specifically, they estimate inflation at 2.5% in 2024, 2.2% in 2025, and 1.9% in 2026.² In this context of price monitoring, it is important to track the movement of other types of prices, such as wages, which have shown notable increases in the most recent period.
- **The market did not anticipate any further interest rate cuts by the ECB in the short term, although there is increasing speculation about a slight cut at the September meeting.** The institution's expectations and statements from its representatives seem to support this possibility. Regarding the purchase programmes, the size of the asset portfolio under the Asset Purchase Programme (APP) is decreasing at the expected pace following the halt in principal reinvestments. Under the Pandemic Emergency Purchase Programme (PEPP), the asset portfolio will begin to be reduced in the second half of the year, with reinvestments expected to end by year-end.
- **The Federal Reserve (FED) has kept interest rates unchanged so far this year, maintaining the official rate at 5.5% for the past 10 months, the highest level since 2001.** FED Chairperson Jerome Powell stated on 13 June that they will not lower interest rates until economic conditions require it, either due to a rise in the unemployment rate or a significant decrease in inflationary pressures. However, market consensus suggests, similar to the ECB, the possibility of a cut at the September meeting. The Bank of England has also maintained its interest rates at 5.25% since August of last year. A potential cut of 25 bp is expected to be discussed at the next meeting.

Macroeconomic environment: *improving outlook, but some challenges remain*

- **At the end of 2023, GDP growth was 2.1% (2.5% on average for the four quarters). The first quarter of 2024 saw a 0.8% increase, raising the year-on-year rate to 2.5%.** This higher-than-expected increase in activity in Spain was mainly driven by domestic demand, with notable growth in household consumption (+2.5% year-on-year) and public administration spending (+3.4%). Compared to other countries in the European Union, Spain's growth continues to surpass that of the major economies,³ with an average year-on-year increase of 0.4% in the euro area as a whole (see Figure A19). Despite the increase in economic activity, the unemployment rate rose slightly in the first quarter of the year to 12.3%, which is 0.5 percentage points (pp) higher than at the end of 2023. The number of employed individuals also decreased by 139,700, bringing the total to 21.25 million. Meanwhile, available data on public sector finances indicate a moderately positive trend,

² Forecasts for core inflation are estimated at 2.8% in 2024, 2.2% in 2025, and 2.0% in 2026.

³ For example, in both Germany and France growth rates were 0.2% in the first quarter of the year, while the euro area average stood at 0.3%. In year-on-year terms, the growth of these three economies was -0.2%, 1.1% and 0.4%, respectively.

with a slight reduction in the consolidated general government deficit⁴ to 0.39% of GDP at the end of April, compared to 0.42% in the same period of 2023. Government debt levels also continued to decline in the first quarter, reaching 109% of GDP, which is 2.2 pp lower than in March 2023.

- **The provisional inflation rate stood at 3.4% year-on-year in June, 0.2 pp lower than in May but 1.5 pp higher than a year earlier.** Since September 2023, inflation has remained relatively stable, fluctuating between approximately 3% and 3.5%. The core inflation rate,⁵ which had been falling continuously until April this year, has remained stable since then, closing June at 3.0%. Using disaggregated data up to May, the largest price increases were observed in fuel (8.8% year-on-year) and package holidays (8.5%), while food price growth has gradually moderated to 4.5%. **The gap between the Spanish consumer price index (CPI) and the euro area CPI remains positive and has slightly widened, closing May at 0.8 pp.**
- **Growth forecasts for the end of 2024 have been revised upwards, thanks to better-than-expected performance in the first quarter.** The Bank of Spain, in its latest economic projections report from June, estimates that Spanish GDP will grow by 2.3% in 2024 (0.4 pp higher than the March estimate) closely aligned with BBVA's forecast of 2.5%.⁶ Growth forecasts for the euro area are significantly lower than those for Spain, with the ECB projecting an average growth of 0.9%. For 2025, forecasts from these institutions suggest a growth rate of 2.1%. This upward revision of the 2024 estimates has also allowed for a downward adjustment of the projected deficit, which the Bank of Spain now places at 3.3%, 0.2 pp lower than the March estimate, while the government and European Commission estimate it at 3%.⁷ Similarly, public debt is expected to close the year at 105.8% of GDP, a reduction of 0.7 pp from the previous forecast.

Use of new technologies: low but growing risks

- In recent years, economies have made continuous progress in the digitalisation of businesses and society as a whole. Since the outbreak of the pandemic, this process has accelerated even further, with the development of tools that have transformed business models and management practices. One of the key opportunities presented by technological advancement in the financial sector is the crypto-asset market. In some economic regions outside Europe, such as the United States, initial steps are being taken to approve some of these products, such as bitcoin ETFs. Additionally, artificial intelligence solutions are undergoing significant development, offering new possibilities in this space. All these developments may pose risks to financial stability, such as inappropriate valuations, potential loss of investor confidence during periods of stress, increased volatility, and contagion spirals between assets or markets. Within this context of technological advancement, cybersecurity risks have become increasingly significant. In recent years, there has been a substantial rise in both the number and sophistication of cyber-attacks. It is therefore crucial that financial sector institutions are well-prepared to handle these cyber threats.⁸

⁴ Excluding local authorities and aid to financial institutions.

⁵ That is calculated by excluding the most volatile elements from the general index, specifically energy and fresh products.

⁶ These values are above the rates predicted by the International Monetary Fund (IMF) and the European Commission, which stand at 1.9% and 2.1%, respectively. However, as these forecasts were made in April and May, they did not include the most recent information.

⁷ This development has meant that, with the reactivation of the excessive deficit protocol after four years of inactivity, Spain has not been included. As a result, Spain has avoided this disciplinary procedure, which the European Commission has applied to seven countries, including France and Italy.

⁸ These risks are addressed under the heading of medium- and long-term risks.

Stock market developments

Equities

- **Equity index gains, which were notable in the first few months of the year,⁹ moderated in the second quarter¹⁰ as it became clear that policy rate cuts would be smaller than expected by the end of 2023 and would occur later than anticipated.** This was further impacted by declines driven by rising geopolitical tensions and uncertainties surrounding the economic policies to be adopted by the new political majorities resulting from various European elections (see geopolitical risk). Additionally, in Europe, there were declines linked to the public finances of some Member States, while in the United States, performance was mixed, with some indices benefiting from the sharp revaluation of the technology sector.
- **In this context, US indices posted gains over the six-month period, ranging from 3.8% for the Dow Jones to 18.1% for the Nasdaq,¹¹ with the broader S&P 500¹² rising by 14.5%.** The performance of the Dow Jones, which has a higher weighting of traditional economy companies – such as banks and industrials – was hampered by shifting expectations regarding interest rate cuts. Meanwhile, both the Nasdaq and the S&P 500 benefited from the growth in the technology sector, driven by the prospects for development and advancements in artificial intelligence. In the main European stock markets, gains were more modest, ranging from 5.6% for the UK FTSE 100 to 9.2% for the Italian MIB 30 index. An exception to this trend was the French Cac 40 index, which entered negative territory (-0.8%) due to political uncertainties following the results of recent elections.¹³ Among the best-performing sectors at the European level were banking and insurance, which have continued to benefit from relatively high interest rates, along with the technology sector.
- **In Spain, the Ibex 35 gained 8.3% in the first half of the year, aligning with the main euro area indices and reaching its highest levels since the first half of 2017.** However, the performance gap with other European indices – which have reached record highs in recent years – remains unclosed. Despite the increase in share prices, the positive trend in corporate earnings kept the price-earnings ratio (PER) stable at 10.8 in June, still below its historical average of 13.3 (see Figure A2).

⁹ In the first quarter of the year, US indices posted gains ranging from 5.6% for the Dow Jones to 10.2% for the S&P 500, while European indices saw gains between 8.8% for the French Cac 40 and 14.5% for the Italian FTSE Mib.

¹⁰ In the second quarter, the US S&P 500 and Nasdaq indices rose by 3.9% and 8.3% respectively, but the Dow Jones declined by 1.7%. In Europe, losses were concentrated in the indices of euro area members, ranging from a 1.2% decline for the Ibex 35 to an 8.9% drop for the Cac 40.

¹¹ During the first half of the year, a significant number of Nasdaq stocks gained between 10% and 50%, with some even exceeding these figures. Notably, the so-called “magnificent seven” (Amazon, Apple, Alphabet [Google], Meta [Facebook], Microsoft, Nvidia, and Tesla) saw gains ranging from 8.8% to nearly 150%, except for Tesla, which fell by almost 22%.

¹² This index is the most representative of the US economy, covering all sectors from technology to finance and industry. Technology companies now account for almost 34% of its capitalisation, up from 29% at the end of 2023. Of the top 10 companies by weighting in the index, eight are technology firms, making up more than 32% of the total.

¹³ In early July, before the second round of elections, the French index saw a slight increase, and it experienced little change after the election results were announced. Consequently, from the end of June to 8 July, the index rose by 2%.

- **Most sectors performed positively, albeit unevenly, in the first half of the year. The best performance came from banks and insurance companies, as well as textile and consumer goods companies.** Service companies, including airlines, leisure, tourism, and hospitality, also stood out, along with those in the chemicals and engineering sectors, and the oil sector, which benefited from the recovery in crude oil prices. In contrast, the biggest declines (over 20%) were seen in renewable energy companies and the pharmaceutical sector. Renewable energy firms were adversely affected by the drop in wholesale electricity prices and persistently high financing costs. Meanwhile, the pharmaceutical sector was weighed down by the sharp fall in the share price of Grifols,¹⁴ which impacted overall sector performance.
- **The liquidity indicator of the Ibex 35 (measured by the bid-ask spread) remained at satisfactory levels in the first half of the year (0.060%).** It even improved in the first quarter (0.058%) but returned to the mid-2023 levels (0.063%) in the second quarter. This increase could be attributed to a slight rise in volatility.
- **Average daily trading on the continuous market recovered in the first half of the year, reaching €1.35 billion,** up from €1.28 billion in the same period of 2023 (€1.17 billion for 2023 as a whole). Trading volume increased in the second quarter, coinciding with a slight rise in volatility, which encouraged algorithmic and high-frequency trading.
- **Total trading in Spanish equities in the first half of the year¹⁵ amounted to €371.88 billion, 6.7% more than in the same period of 2023** and almost 32% higher than in the preceding six months. Of this amount, €165.90 billion was traded on Spanish stock exchanges and markets (BME), up 2.8% year-on-year, with the remaining activity taking place on competing trading venues. The more pronounced recovery in activity at BME compared to alternative competing venues in the second quarter has enabled it to regain some of its market share, reaching 46%¹⁶ of total securities trading,¹⁷ up from a historic low of 43.7% in the previous quarter. Cboe dominates among competing trading venues, accounting for nearly 75% of total trading in this group, while Equiduct and Aquis have also grown, together representing almost 15%. Furthermore, trading in Spanish equities through systematic internalisers increased to just over 7.8% of total trading in the first half of the year, up from 6.5% in 2023.
- In comparative terms with the most significant regulated European stock markets, BME's market share¹⁸ remains at an intermediate level – below that of the Frankfurt Stock Exchange and Euronext Milan, but above that of Euronext Paris (see Figure 3).

¹⁴ Grifols has declined by 44.7% in the first half of the year.

¹⁵ Information calculated using data from the financial information provider Bloomberg.

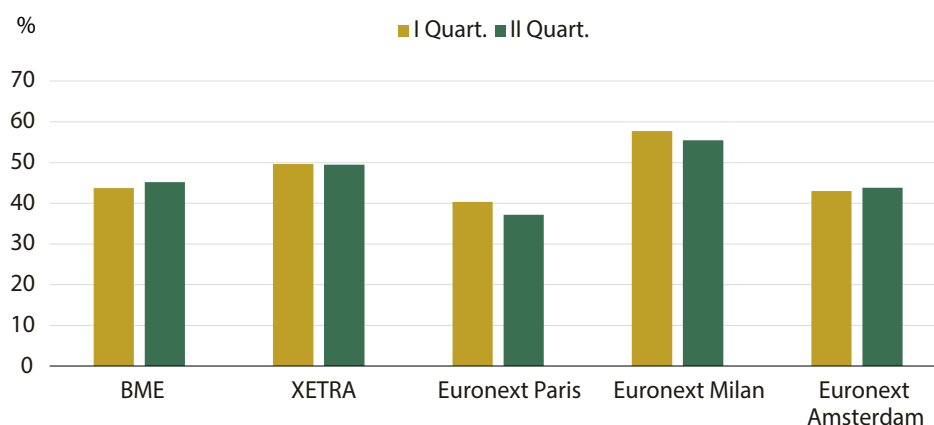
¹⁶ Other alternative sources of information, particularly those provided by BME based on Liquidmetrix data, estimate BME's market share in securities trading to be around 66.7% in the first half of the year (compared to 67.46% in 2023). The difference is attributed to Liquidmetrix's focus on on-book trading, whereas this note accounts for all market trading.

¹⁷ Total trading is understood as trading subject to non-discretionary market rules.

¹⁸ According to BMLL data.

Market shares of the main European regulated markets

FIGURE 3



Source: CNMV.

- **Activity in the primary equity market saw a significant recovery, driven by the initial public offering (IPO) of Puig Brands and increased activity in the BME Scaleup market for developing companies. Cumulative issuance up to June amounted to €6.22 billion, nearly three times more than in the same period of 2023.** After a 2023 marked by a lack of IPOs,¹⁹ Puig Brands²⁰ went public on 3 May, raising close to €2.80 billion. This was the largest IPO on the Spanish stock exchanges since Aena's flotation. The food company Europastry and the fashion company Tendam,²¹ which had announced plans to go public, have cancelled them due to increased volatility and less favourable market conditions. Notable issuance activity was observed in the BME Scaleup²² market for developing companies, amounting to €813.6 million, and to a lesser extent in the Portfolio Stock Exchange,²³ which saw €102.6 million in issuances. This stands in stark contrast to the decline in activity in the BME Growth alternative market, which saw only €142.7 million in issuances and the addition of just two companies.

Fixed income

- **International bond markets experienced an upward trend in asset yields in the first half of 2024, reversing the declines seen at the end of the previous year.** This increase is due to changing expectations regarding potential interest rate cuts by major central banks, as previously mentioned. In Europe, government bond yields reached their highest levels of the year for the longer end of the curve by the close of the first half. For 10-year bonds, the increases ranged from 35 bp in Italy to 73 bp in France, with an average rise of around 45 bp. By the end of June, 10-year bond yields stood at 2.5% for Germany and 2.8% and 2.9% for the Netherlands and Ireland, respectively. Other European economies, including

¹⁹ Only two listings occurred: one for MFE MediaForEurope NV, valued at €941 million, and the other for Ferrovial SE, valued at €21 billion. In both cases, the Spanish companies (Mediaset and Ferrovial) were delisted from the stock exchange prior to being absorbed by their parent companies in Italy and the Netherlands, followed by the subsequent listing of the foreign entities in Spain.

²⁰ The family-owned company, one of the world's largest groups in perfumery, cosmetics, and fashion, had a market capitalisation exceeding €13.90 billion. The IPO, aimed exclusively at institutional investors, raised €2.77 billion through class B shares (with voting rights only), with €1.39 billion coming from the public offering and €1.38 billion from the public subscription offering, including €134.5 million from the greenshoe or over-allotment option.

²¹ Earlier, the Italian trainer and sports shoe company Golden Goose had cancelled its IPO on the Milan Stock Exchange due to increased market volatility.

²² The BME Scaleup market currently has seven companies, all of which are listed real estate investment trusts (SOCIMIs, or Spanish REITs) that were added to the market in the first half of 2024.

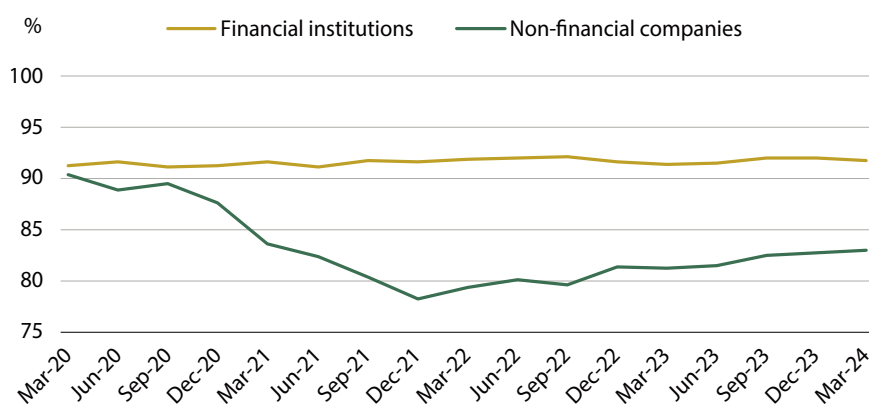
²³ Portfolio Stock Exchange currently has seven companies, all of which are SOCIMIs (Spanish REITs).

France, Belgium, Portugal, and Finland, saw yields exceeding 3%. In Italy, yields were around 4%.

- **At the national level, interest rates on government debt also rose progressively across all segments of the yield curve, except for the shortest maturities (3, 6, and 9 months).** By the end of the second quarter, rates were around 3.4% for most maturities. In the case of corporate debt, the performance was more varied due to the diversity of the sample in terms of maturity, rating, and degree of subordination. There were declines in the shorter segments (by 50 and 80 bp) and stability in the medium and longer segments.
- **Risk premiums on European sovereign debt generally trended downward throughout the first half of the year, until early June when this trend reversed following the European Parliament elections.** Year-to-date, these indicators have shown little change, except in France, where both the yield spread with the German bond and the CDS have seen a slight increase. In Spain, the sovereign risk premium – measured as the difference between the 10-year government bond yields of Spain and Germany – also declined throughout the six-month period until early June, after which the premium began to rise again. Over the year, it recorded a slight decrease from 97 bp to 93 bp (see Figure A9).
- **Similarly, risk premiums for Spanish private sector entities declined throughout the first half of the year, except in the final month, with all reductions concentrated in financial institutions.** The relatively high interest rates led to improved margins and, consequently, better results for these institutions, allowing their average CDS to drop to 61 bp, 23 bp lower than at the beginning of 2024. In contrast, the average CDS for non-financial companies remained unchanged from the start of the year, holding steady at 53 bp.
- **The credit ratings of Spanish private issuers saw little significant change in the first quarter of 2024, with most Spanish debt maintaining high-quality levels.** In March, 90.3% of Spanish private debt was classified as investment grade – a slightly lower proportion than at the end of the previous year (90.5%) but higher than in March 2023. The higher credit quality of debt in the financial sector remains evident, with 91.7% of financial sector debt being investment grade, compared to 83% for non-financial companies.²⁴ In comparison to the previous quarter, there was a slight decrease of 0.3 pp in the proportion of high-quality debt held by financial institutions. This was partially balanced by a 0.3 pp increase for non-financial companies.

Proportion of investment grade debt by sector

FIGURE 4



Source: Bank of Spain, Bloomberg and CNMV.

²⁴ The trend in the non-financial sector is largely attributable to industrial and technology companies, which account for about 65% of the total.

- **So far this year, debt issuance by Spanish issuers,²⁵ whether in domestic or foreign markets, totalled €87.41 billion, a decrease of 28.2% compared to 2023.** Of this amount, €58.44 billion was in long-term issues (down 18.7%), while nearly €29 billion was in commercial paper (down 46.8%). The decline in issuance activity can be attributed, at least in part, to the tightening of financing conditions.
- **The analysis of these issuances shows a decline in volumes both in Spain (-53.3%) and abroad (-4.6%), with the domestic drop being much more pronounced.** Long-term private sector fixed income issuances registered with the CNMV in the first half of 2024 totalled €14.18 billion, a decrease of 60.9% compared to the same period in 2023. This decline affected almost all types of issuances, with particularly sharp drops in mortgage covered bonds (-86.9%) and plain vanilla bonds (all of which were issued abroad). The issuance of asset-backed securities was the only category to see an increase, rising by 53.4%. Meanwhile, issuances of commercial paper totalled €13.13 billion,²⁶ a year-on-year decline of 41.4%. In contrast, fixed income issuances abroad reached €59.91 billion in the first half of the year (with data up to May), which is 4.6% less than in 2023. The increase in medium and long-term bond issuances (24.5%) could not offset the significant drop in commercial paper issuances (-50.6%).

²⁵ Includes commercial paper issues admitted to trading in the different markets.

²⁶ This amount includes admissions to AIAF and MARF.

Recent activity in the field of asset management and investors

- **Data from the Financial Accounts for the first quarter of 2024 show a progressive increase in the savings rate over the past 12 months, reaching levels higher than those observed before the pandemic.** The savings rate stood at 12.2% of household disposable income (based on cumulative data for four quarters), compared to 8.2% in March 2023. Although these figures remain lower than the euro area average, where the savings rate was 14.4% at the end of 2023, they indicate a narrowing of the gap. This increase in the savings rate was reflected in the acquisition of financial assets, which rose from 2.7% of GDP at the end of 2023 to 3.7% in March (cumulative data for four quarters, net). In addition, the same pattern observed throughout the previous year continued: during the quarter, households disinvested in means of payment (cash and demand deposits), with outflows exceeding €18 billion (1.2% of GDP). They primarily invested in time deposits and fixed income securities (€19.50 billion, 1.3% of GDP) and in investment funds (€10.50 billion, 0.7% of GDP).²⁷
- **In the first quarter of the year, Spanish investment funds continued to follow the pattern observed since 2022, with significant inflows into the more conservative categories and redemptions from those considered riskier.** Due to much higher interest rates compared to those seen up until 2022, fixed income funds received by far the largest net subscriptions of the quarter, amounting to €11.40 billion.²⁸ Conversely, mixed funds (comprising both fixed income and equities) experienced net redemptions, totalling €3.60 billion in the first three months of 2023,²⁹ continuing the trend of the past two years.
- **High subscriptions, combined with the strong performance of the investment portfolio, led to a 5% increase in the assets of investment funds during the first three months of the year.** Specifically, net subscriptions totalled nearly €8 billion, while the appreciation of portfolio assets exceeded €9.70 billion.³⁰ All categories experienced an increase in the value of their portfolios, with international equity funds seeing a rise of more than €4.40 billion. As a result, fund assets at the end of March stood at just under €371 billion, €17.60 billion more than at the end of 2023 and €42 billion more than a year earlier. The number of unitholder accounts increased by almost 90,000 over the quarter, corresponding to 74,000 investors, bringing the total at the end of March to 16.1 million unitholder accounts, corresponding to 5.2 million investors.
- **Similarly, the assets of foreign collective investment schemes (CIS) distributed in Spain continued to grow in the first quarter of the year, rising by 3.6% to over €260 billion.** This figure accounted for nearly 40% of all CISs marketed in Spain.
- **Retail investor participation in Ibex 35 trading has continued the upward trend that began in 2022 (see Figure 5).** In the first half of 2024, retail investors accounted for **7.9% of total trading volume in buy transactions and 9.7% in sell transactions**, compared to 7.5% and 9.1% in 2023, respectively. **The healthcare sector saw the highest level of retail investor involvement**, with retail investors making up 25.9% of total buy trading

²⁷ On an annual basis (last four quarters), disinvestment in means of payment stood at 4.3% of GDP, while investment in other deposits, income securities, and investment funds was 6.1% and 1.6%, respectively.

²⁸ Over the last four quarters, net subscriptions have exceeded €20 billion.

²⁹ More than €10 billion since the second quarter of 2023.

³⁰ Net subscriptions between March 2022 and March 2023 totalled €24.50 billion, with net yields amounting to €11.60 billion.

volume and 22.7% of sales volume. This represents a significant increase from 2023, when the figures were 15.8% and 15.9%, respectively.

- **The rise in retail investor participation in financial markets is to a large extent linked to the opportunities offered by new technologies.** In particular, the growth of neobrokers – firms that primarily target retail investors, operate exclusively online, and offer highly innovative services – can partly explain the increase in retail investor activity in capital markets.³¹ These firms offer retail investors advantages such as lower transaction costs and broader investment opportunities. However, they also present significant challenges in terms of investor protection, as there is a risk that investors may purchase products that are not suitable for them.

Retail investor participation in trading of Ixex 35 securities

FIGURE 5



Source: CNMV.

³¹ See the article published by the European Securities and Markets Authority (ESMA) on this matter, [Neo-brokers in the EU: Developments, benefits and risks](#).

Assessment of the main risks

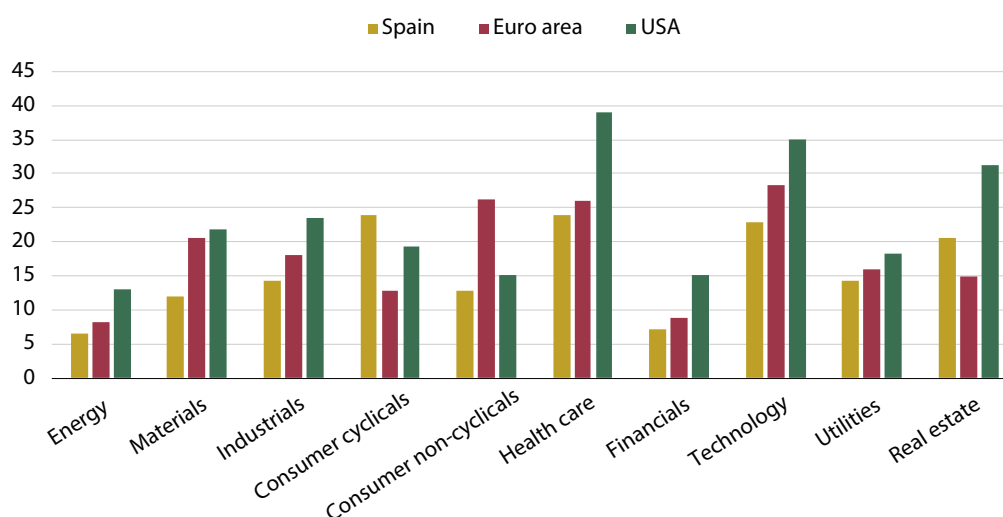
Categories of financial risk

Market risk

- Although the prospect of interest rate cuts and the improvement in economic indicators have helped stock markets and their valuations to rise over the past year, **investors may be underestimating the significance of some risks. In the event of a shock materialising, this could lead to significant falls in asset prices and negative contagion spirals.** This risk could be exacerbated by the intensification of search-for-yield strategies, driven by expectations of further rate cuts. These strategies increase the risk levels and volatility of the assets in investors' portfolios.
- **In the past year, there has been a significant reduction in risk premiums across all markets, accompanied by an increase in P/E ratios, indicating higher valuations across the board.** Despite this, various indicators do not suggest an overvaluation in European markets. Instead, the highest valuation metrics are concentrated in US markets, where prices, risk premiums, and P/E ratios are at historic highs. However, as previously mentioned, the occurrence of a shock could significantly impact various markets through contagion effects.
- **The sectoral distribution of P/E ratios exhibits divergences across sectors and regions, with the highest values³² concentrated in the United States and in the technology, pharmaceutical and healthcare, and real estate sectors (see Figure 6).** In the Spanish market, the highest valuations are found in the consumer goods and services, technology, pharmaceuticals, and real estate sectors. These sectors or markets would be more vulnerable to a significant price correction during periods of market stress.

Sector P/E ratios by region

FIGURE 6



Source: Eikon Refinitiv.

³² Low P/E ratios, which are below the market or sector average, as well as below their historical average, were associated with low asset valuations or reduced growth prospects for those assets.

- **In fixed income markets, market risk remains at moderate levels, supported by the prospect of further rate cuts by central banks.** However, this could be outweighed by rising credit risk or contagion from other markets if temporary spikes of volatility in risk premiums occur. As a result, this risk remains particularly relevant for lower-rated high yield corporate debt and subordinated debt.

Credit risk

- **The credit ratings of Spanish issuers and other financial indicators do not show significant changes in credit risk, but there are some emerging concerns looking ahead.** If interest rates remain high for an extended period, this could impact entities with higher levels of debt or greater financing needs. In the fixed income market, for example, some estimates suggest that over the next five years, more than half of the corporate debt of companies in the European Economic Area (EEA) will mature. This volume will necessarily need to be refinanced at higher interest rates than in the past, which may be particularly concerning for the high-yield debt segment.
- **Other factors that may impact credit risk include the gradual reduction of amounts reinvested in the maturities of ECB debt purchases, which are expected to cease entirely by the end of 2024,³³ and political uncertainties in Europe.** Regarding the latter, certain political changes could lead to increased fiscal imbalances in the medium term. This, in turn, may affect the size of risk premiums and result in some contagion, particularly in economies with more vulnerable public finances.
- **This context is particularly important for the most heavily indebted agents, as mentioned earlier, especially those with poor credit ratings or those that are financially more vulnerable.** Regarding the indebtedness of major sectors in the Spanish economy, a notable trend of deleveraging has been observed since June 2021 in both the private³⁴ and public sectors (see the macroeconomic environment section and Figure A12). However, the public sector continues to show high levels of debt. At the corporate level, vulnerabilities are found among companies with high levels of debt and a reduced capacity to service their obligations, some of which have yet to fully recover from the pandemic. Among sectors, the real estate and renewable energy sectors are particularly vulnerable due to their higher levels of indebtedness. The trend in the private sector non-performing loan (NPL) ratio, which would indicate the materialisation of this risk and should be monitored in the coming months, has been slightly upward in the most recent period but remains at low levels (3.6% in April).

³³ The ECB has been fully reinvesting the principal of securities purchased under the PEPP until the end of June 2024. However, it has indicated that in the second half of the year, it will reduce its portfolio holdings by an average of €7.50 billion per month, aiming to end its reinvestments by the end of 2024.

³⁴ Household debt fell to 46.9% of GDP in 2023 (from 52.3% in 2022), and corporate debt decreased to 64.7% (from 71.2%).

Liquidity risk

- **Liquidity risk in the market is limited. In the case of equities, bid-ask spreads do not show any warning signs and are supported by a modest recovery in trading volumes.** However, it should be noted that, even when the overall valuation is positive, trading is concentrated in a relatively small number of securities. Consequently, adverse market events could have a greater impact on the prices of those securities with significantly lower liquidity.
- **In the bond markets, the bid-ask spread on the 10-year sovereign bond also remained at satisfactory levels, with very low values in both absolute and relative terms.** The indicator showed a slight downward trend over the quarter, reflecting the rise in yields at longer maturities (see Figure A13).

Contagion risk

- **Contagion risk remains at a moderate level, with the indicators spanning from moderate to high risk.** The correlation between the returns on different types of Spanish fixed income and equity assets is at moderate levels. Additionally, the correlation among various financial sectors in our economy, as measured by the Spanish financial market stress indicator, remained at medium levels throughout the half-yearly period. Finally, the highest correlations were observed between the yields on Spanish sovereign debt and those of the major European economies, exceeding 90% in June.³⁵
- **The correlation between the daily returns of different types of Spanish assets saw a significant increase in the second quarter of the year, after having decreased in the first quarter, returning to levels similar to those seen at the end of 2023.** From April to June, the average correlation value was 0.30, reaching 0.37 in June alone, compared to 0.19 in the first quarter. The low correlation between January and March was mainly due to the strong rally in financial equities during this period. This rally reduced the correlation with other sectors, particularly with fixed income assets, both public and private, even turning negative at times. In the second quarter, however, the slight decline in financial sector prices reversed this trend.

Non-bank financial intermediation (NBFI)

- **The financial assets of the institutions included in the narrow measure of the NBFI³⁶ amounted to €348 billion in 2023**, an increase of 11.5% compared to the previous year, **representing 6.6% of the total financial system.** Of this amount, 91% was accounted for by the assets of certain types of CIS,³⁷ while asset securitisation represented 6%.³⁸ Given this, the risks to financial stability are potentially more significant for CISs. The main risk stems from their inability to meet a considerable increase in liquidity needs, which can arise from a sudden surge in redemption requests from unitholders or from changes in asset

³⁵ The correlation with core countries (Germany, France, Belgium, and the Netherlands) was 91.9% and with peripheral countries (Italy, Ireland, Portugal, and Greece) 95%.

³⁶ The narrow measure of the NBFI is derived from the financial assets of non-bank financial institutions that fall within one of the five economic functions (EFs) defined by the Financial Stability Board (FSB). These institutions' activities may generate risks similar in nature to those of banks.

³⁷ All financial CISs, except for equity investment funds, are included in the NBFI.

³⁸ The remaining 3% was distributed among broker-dealers, finance companies, and mutual guarantee companies.

prices. This is especially pertinent when there is substantial exposure to derivatives (due to margin calls) or repos (due to collateral requirements). Therefore, analysing the liquidity conditions of fund portfolios and leverage (via derivatives) is fundamental to the risk assessment of these institutions.

- **Estimates of leverage for CISs indicate that their market risk exposure remains very low and continues to be below the maximum levels allowed by law.** At the end of 2023, gross exposure³⁹ to market risk accounted for 27.5% of their assets, down from 40% in 2022, while net exposure⁴⁰ was just 10.8%⁴¹ of assets. This latter figure highlights that the leverage of Spanish investment funds at the end of last year remained well below the maximum permitted level of 100% of assets.
- **The liquidity conditions of Spanish investment funds remained satisfactory in 2023, with a slight improvement compared to the previous year.** The ratio of high-quality liquid assets (HQLA)⁴² stood at 55.5% for all funds within the NBFIs sector, up from 53.9% in 2022. This ratio was 49.9% for mixed funds, 61.7% for fixed income funds, and 61.8% for money market funds. Individually, most investment funds had a level of high-quality liquid assets exceeding 40%. However, although this is a very small proportion, some investment funds had a liquid asset ratio below 20% – specifically, 0.7% of the assets in fixed income funds and 0.9% of the assets in mixed funds (these percentages were above 2% in 2022).
- **A more detailed analysis of the fixed income portfolios of investment funds reveals that their assets had relatively high credit quality and moderate modified duration.**⁴³ By the end of 2023, 91.7% of the fixed income portfolio's value had a credit rating of BBB or higher (investment grade),⁴⁴ with around 20% rated AA or AAA. Additionally, the modified duration for all investment funds at the end of the year stood at 1.9, a figure that has declined significantly over the past two years due to the general rise in interest rates, particularly at shorter maturities,⁴⁵ which has encouraged investment in shorter-term debt assets.

³⁹ Gross leverage is calculated by summing the notional amounts of derivative contracts in absolute terms, meaning both long and short positions are added together as positive values.

⁴⁰ Net leverage is determined by considering the market value of the underlying asset (or its notional value if more conservative), adjusted for delta in the case of options. It also incorporates rules for offsetting long positions with short positions in the same underlying asset (netting) and across different underlying assets (hedging).

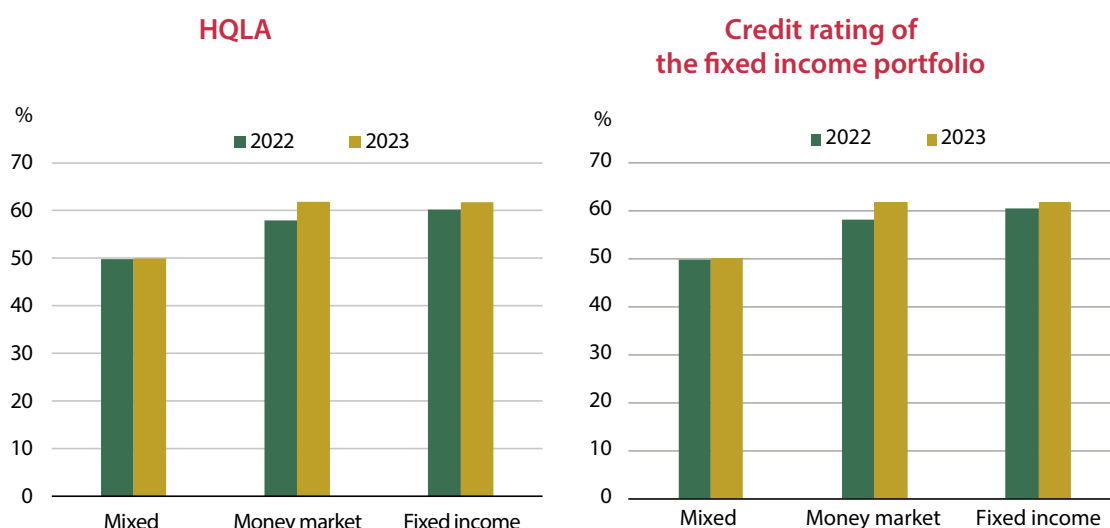
⁴¹ This figure has been calculated for all funds that use the commitment methodology, which determines exposure by converting all derivative contracts into the equivalent investment in their underlying asset. The technical details of this methodology are outlined in ESMA's *CESR's Guidelines on Risk measurement and the calculation of global exposure and counterparty risk for UCITS (CESR/10-788)*. These funds represented 79.6% of the total. Net exposure would increase to 21.9% if indirect exposure through investments in other CISs were included in the leverage estimate.

⁴² High-quality liquid assets (HQLA) include cash and deposits in full, 50% of the value of equities, and varying percentages of government debt, private fixed income, and securitisations, depending on their credit rating. The percentage of government debt considered liquid can range from 0% to 100%, private fixed income from 0% to 85%, and securitisations from 0% to 65%. To obtain a metric as accurate as possible, the HQLA of the CISs in which the Spanish funds invest has also been quantified, instead of considering this investment as having zero liquidity.

⁴³ Modified duration measures the percentage change in the price of an asset in response to a 100 basis point increase in interest rates.

⁴⁴ This figure ranged from 90.5% for mixed funds to 97.7% for money market funds.

⁴⁵ In 2021, the modified duration was 2.7, while in 2022, it was 2.3.



Source: CNMV.

- In the context of liquidity risk management analysis, the CNMV conducts half-yearly stress tests on investment funds** to evaluate their robustness against a theoretical liquidity shock resulting from a sudden and significant increase in redemptions.⁴⁶ The latest results from these tests, using data from December 2023 and considering various shock scenarios on fund redemptions, continue to indicate that the investment fund market is generally resilient to the scenarios tested. In the most extreme simulated scenario (up to 16 times more severe than the worst week in March 2020, depending on the fund’s category), a total of 11 funds were identified as potentially experiencing liquidity issues in meeting the simulated increase in redemptions. These funds represent 1.7% of the total sample’s assets and are all within the high-yield corporate bond category.

⁴⁶ These tests are carried out on UCITS and quasi-UCITS funds, and follow a methodology proposed by ESMA (within the framework of STRESSI) and subsequently extended by the CNMV (see the article by Ojea-Ferreiro, J. [2020] “Quantifying uncertainty in adverse liquidity scenarios for investment funds”, CNMV, *CNMV Bulletin*, II-2020).

On 22 May, the European Commission launched a public consultation on the macroprudential treatment of risk in asset management.¹ In recent years, regulators worldwide have scrutinised the risks posed by non-bank financial intermediation (NBFIs), particularly due to its increasing significance in the global financial system. Moreover, there is concern about the potential relevant negative impacts that shocks, whether originating from or propagated by the NBFIs sector, could have on the real economy.

From the perspective of the CNMV, regulations addressing asset management risks must necessarily consider the specific characteristics of the sector. It is therefore essential to precisely define the nature of the risks to be addressed, focusing primarily on cases where the characteristics of asset management may lead to excessive price volatility and liquidity pressures. Capital requirements and liquidity buffers, which are typically associated with banking, may not be the most appropriate solutions for mitigating risks to financial stability.

In this context, and regardless of the CNMV's formal response to this consultation in the coming months, four European securities market authorities, including Spain (along with Austria's Finanzmarktaufsicht [FMA], France's Autorité des Marchés Financiers [AMF], and Italy's Commissione Nazionale per le Società e la Borsa [CONSOB]), have jointly decided to outline their priorities in this area.² There are a total of five priorities: three that need to be addressed in the short and medium term, and two that should be explored in the longer term. These priorities are described below:

- **Ensure broad availability and greater use of liquidity management tools (LMTs)** across all types of open-ended investment funds (OEFs).
- **Prohibit amortised cost accounting for money market funds**, as it can give investors the false impression of a stable net asset value (NAV), thereby creating incentives for early withdrawals.
- **Conduct system-wide stress tests** to better understand the vulnerabilities within each asset management group and their interconnections with other participants in the financial system.
- **Implement a fully consolidated supervisory approach for large cross-border asset management groups**, considering that management teams and funds are overseen by different national competent authorities.
- **Establish an integrated data centre shared by market supervisors and central banks**, to support their respective needs in daily supervision and stress testing.

¹ https://finance.ec.europa.eu/regulation-and-supervision/consultations-0/targeted-consultation-assessing-adequacy-macroprudential-policies-non-bank-financial-intermediation_en

² <https://www.cnmv.es/Portal/verDoc.axd?t=%7b920a5366-d967-45be-95e1-2a2ba36839c6%7d>

Medium and long-term risks

Sustainability

- **The most significant risks concerning sustainability** relate to the proper valuation of financial assets with environmental, social, and governance (ESG) characteristics, the identification and prevention of climate change-related risks, and the potential presence of greenwashing. At present, these risks remain contained.⁴⁷
- **The latest available figures on sustainability-related investment vehicles indicate a certain stability among CISs and progress in fixed-income issuances.** In Spain, the number of CISs covered by Articles 8 and 9 of the SFDR at the end of the first quarter was 361 and 19, respectively. This totalled 370 investment funds, 5 SICAVs (open-ended collective investment companies), and 5 hedge funds, with assets amounting to €130 billion, representing 33% of the total assets of Spanish CISs. This percentage has remained relatively stable since September 2022. The volume of debt issues with ESG characteristics by Spanish issuers in the first half of 2024 amounted to €14.09 billion, surpassing the figures recorded by this time in 2022 and 2023, which stood at €10.47 billion and €11.28 billion, respectively. Sector-wise, there were advances in the issues by financial institutions, public administrations, and corporate entities.⁴⁸ In terms of the type of debt, there were year-on-year decreases in social and sustainability-related issues (with no sustainability-related issues issued) and increases in sustainable and green issues. The most significant growth was in green issues, which rose by 74.3%, continuing to be the predominant category by a considerable margin.⁴⁹
- **With regard to existing regulations, it is worth highlighting the relevance of sustainability reporting, which has recently seen its most prominent development in the new Corporate Sustainability Reporting Directive (CSRD).** Adopted in December 2022, this Regulation comes into effect this year and governs sustainability reporting for companies within the European Union. It replaces Directive 2014/95/EU (NFRD) and significantly broadens its scope, affecting approximately 50,000 companies in Europe, compared to the 12,000 previously covered by the NFRD. However, its implementation will be phased in over time, with not all companies required to submit reports from the first year – initially, only the largest companies will be obliged to do so.
- **As part of the development work of the previous regulations, it is important to highlight the European Commission’s adoption of the 12 European Sustainability Reporting Standards in the summer of 2023.** These standards define the information to be reported concerning the environmental, social, and governance aspects of companies. In Spain, the body responsible for transposing this standard was the Spanish Accounting and Auditing Institute (ICAC), which conducted a prior public consultation to gather feedback from the parties affected by the new regulation.

⁴⁷ [ESMA36-287652198-2699_Final_Report_on_Greenwashing.pdf \(europa.eu\)](#).

⁴⁸ Private sector issuance (financial institutions and corporates) stood at €10.15 billion in the first half of 2024, up from €7.38 billion in the same period of 2023. Government issuance was €3.94 billion in the first half of 2024, compared to €3.90 billion in the first half of the previous year.

⁴⁹ Green bonds are debt instruments with funds specifically allocated to finance environmental or climate change-related projects. Social bonds finance social projects that benefit vulnerable population groups. Sustainable bonds combine the financing of both environmental and social projects. Sustainability-linked bonds have financial characteristics that change based on the achievement or non-achievement of specific sustainability targets.

- **Although funding for the transition to a low-carbon economy has increased in recent years, it remains insufficient to achieve the proposed goals.⁵⁰ Moreover, recent developments could potentially disrupt or slow down this progress.** In some countries, such as the United States, growing political pressures against these changes leading to a cooling in investors' interest in ESG assets. There is also uncertainty regarding future decisions by the European Union in this area, following the outcome of the European elections. Finally, a significantly higher interest rate environment compared to recent years could reduce the attractiveness of sustainable investments.

Cyber risk

- **Cybersecurity risks remain highly significant within the financial system, as they are in other productive sectors, due to the ongoing advances in the digitalisation of companies and society as a whole.** Moreover, in the financial system, there is a risk of contagion due to the interconnections between participants, which can lead to financial stability risks and a loss of investor confidence. Also, the provision of technology services, such as cloud-based information storage, is concentrated among a few firms, which introduces concentration risks.
- **The number of cyber-attacks has doubled globally since the pandemic.⁵¹** While direct losses from reported cyber-attacks are not large (with an average loss per attack of around US\$0.4 million), the risk of extreme losses has increased. The financial sector is especially vulnerable to these risks, as nearly one fifth of all cyber-attacks have targeted entities within this sector.⁵² According to the International Monetary Fund (IMF), cybersecurity policies have somewhat improved in developing economies, which were previously highly vulnerable to such threats. However, many countries still have inadequate cybersecurity networks.
- **In Spain, the total number of cyber-attacks on companies and individuals managed by the National Cryptographic Centre (CCN) in 2023 exceeded 100,000 incidents,** according to the National Security Report by the Department of National Security. Specifically, the CCN handled 107,777 incidents across all sectors, a 93.5% increase from the previous year. The report also noted that not only did the number of incidents increase, but also their frequency and sophistication, driven by society's growing dependence on information and communication technologies (ICT).
- **The most important legislative text regarding cybersecurity in the European Union is the DORA Regulation, which comes into force in January next year, following its approval in December 2022.** This Regulation sets uniform requirements for the security of networks and information systems for companies within the financial system, as well as third parties providing them with ICT-related services. In this way, all companies must ensure they are adequately prepared to withstand and respond to any ICT-related threats. The most relevant regulatory issues during this transitional period leading up to the enforcement of the Regulation are the Regulatory Technical Standards (RTS) and

⁵⁰ To achieve the objectives set out in the European Union Green Deal, around €1.6 trillion need to be allocated annually until 2030. Slightly more than €940 billion is currently being invested. See Platform on Sustainable Finance (2024): [Monitoring Capital Flows to Sustainable Investments: intermediate report](#), April.

⁵¹ [The Last Mile: Financial Vulnerabilities and Risks \(imf.org\)](#)

⁵² A recent example of such an incident occurred on 18 July around 9 p.m., when Microsoft's cloud services experienced an outage due to a failure during a security update on an external platform (CrowdStrike). This led to some worldwide disruptions in air traffic, medical services, and banking services. However, it did not have a significant effect on European secondary markets or their trading systems.

Implementing Technical Standards (ITS) developed by the European Supervisory Authorities – the European Banking Authority (EBA), the European Securities and Markets Authority (ESMA), and the European Insurance and Occupational Pensions Authority (EIOPA).⁵³ Additionally, these authorities announced the launch of a voluntary simulation exercise, allowing firms to submit their information filings in July and August in accordance with the Regulation. This initiative aims to support companies by providing feedback to ensure their information aligns with the required standards.

- **In Spain, the CNMV is the authority responsible for the application of the Regulation by the financial institutions under its supervision.** To determine how well institutions have adapted to the new regulations, the CNMV circulated a questionnaire asking about various aspects of ICT risk management, such as policies and procedures, digital resilience tests, and the management of risks arising from transactions with third parties. The responses indicate that institutions are highly engaged with the new Regulation and are undertaking gap analyses and developing compliance plans. The results suggest that institutions are enhancing their operational resilience capabilities in preparation for 17 January 2025, when compliance with the new Regulation will become mandatory.

New technologies and crypto-assets

- **The crypto-asset market, which doubled its market value in 2023 (from €0.8 trillion to €1.6 trillion), continued this trend in 2024, peaking at €2.6 trillion at the beginning of June and finishing the half-year at €2.3 trillion.** This brings the market capitalisation close to the all-time high of €2.9 trillion recorded in November 2021. Trading volumes exhibited a more uneven trend; after remaining below historical averages in 2023, trading volumes increased in the first half of 2024, but declined again in the latter part of the year.
- **Part of the most recent expansion of the crypto-asset market can be attributed to the approval of bitcoin ETFs in the United States in January 2024. This development impacted crypto-asset prices even in the preceding months, with year-on-year growth rates of around 100%.⁵⁴** These financial products aim to mirror the performance of cryptocurrencies, offering the possibility of investing in them without needing to purchase them directly. Although their current market share is small – less than 1% of the ETF market – they require close monitoring. They facilitate investment in crypto-assets by both retail and institutional investors, thereby increasing the interconnection between the crypto market and traditional markets and enhancing the potential for risk propagation through the financial system.
- **It is important to pay attention to stablecoins within this category of assets. These are instruments tied to the value of a currency, commodity, or other financial asset or cryptocurrency,** used to store value and to exchange or withdraw money without exiting the cryptographic system. Historically, they have shown higher volatility (with spikes linked to events such as those involving Silicon Valley Bank) than one would expect given their intended function, necessitating continued vigilance. Nevertheless, they currently do not pose a significant risk to financial stability, as they account for less than 10% of the total value of the crypto-asset market. The MiCA Regulation has specifically addressed

⁵³ Additionally, common guidelines and delegated acts on different aspects of the Regulation, such as ICT incident management and third-party risk management, among others, are also highlighted.

⁵⁴ At the end of July this year, approval of Tether ETFs by the same jurisdiction was also announced.

this type of crypto-asset, introducing rules for their issuers that came into effect on 30 June this year.

- **In the regulatory domain, rules on asset-referenced tokens (ART) and electronic money tokens (EMT) came into force in June.**⁵⁵ The remaining provisions of this regulation will come into force on 30 December this year. Moreover, the EBA and ESMA are finalising technical standards to implement the Regulation, and the European Commission has adopted a series of delegated and implementing acts, including one that designates electronic money tokens and asset-referenced tokens as “significant”. This designation subjects them to stricter supervision and prudential requirements to mitigate their risks to financial stability. Internationally, the Basel Committee on Banking Supervision is working to clarify aspects of banks’ exposure to crypto-assets and aims to tighten the requirements for stablecoins.
- **In Spain, the CNMV issued a Circular (Circular 1/2022) two years ago regarding the advertising of crypto-assets presented as investment opportunities, aimed at protecting investors.** Under this Circular, between January and May 2024, 848 advertisements were reviewed and 70 information requests were sent out, all within 104 actions, of which 96 were closed (mostly because they met the Circular’s criteria or complied with CNMV’s requirements). Of the 104 actions, 94 were initiated through communications from the institutions themselves. These communications were distributed among the institutions unevenly, with Binance accounting for 43.6% of the total.

Artificial intelligence

- **The use of tools based on artificial intelligence technology continues to advance** rapidly and integrate into the global economy and society. According to surveys, a significant number of financial market traders and rating agencies are already using generative artificial intelligence (GenAI) tools or are considering doing so in the near future.
- **The main advantages of using this technology are the increased speed and efficiency in decision-making and the execution of certain processes**, which offer broad possibilities within the financial markets. Although these technologies are still in a relatively early phase and mostly use generic tools from external providers, the European Parliament approved the European Regulation on Artificial Intelligence (AI) in March this year. This Regulation aims to govern the use of AI to mitigate the associated risks. The impact of the Regulation will largely depend on its development and on the classification of high-risk systems, which are not permitted.
- **In financial markets, it is crucial to address certain risks to avoid jeopardising financial stability and investor protection.** Some of these risks are associated with misleading results, as biases, data manipulation, or overconfidence that can affect investors’ decision-making. Cybersecurity risks are also a concern, as a cyberattack that alters the data used by the AI model can lead to distortions in investment decisions. Finally, risks arise from the homogenisation of risk assessments and investment strategies, potentially increasing procyclicality in the event of an adverse shock.

⁵⁵ Regulation (EU) 2023/1114 of the European Parliament and of the Council, of 31 May 2023, on crypto-asset markets (MiCA).

Private finance

- **Private finance represents a small portion of the total financing of the economy, but it is experiencing significant growth, a fact which is causing some concern among European regulators and supervisors.** Globally, some private sources estimate assets under management to be over US\$13 trillion, with the United States leading the way. This activity channels funds from institutional investors to borrowers in the form of debt or equity that does not trade on regulated markets or multilateral trading facilities (MTFs). While retail participation is very limited, it is also on the rise. Because this sector is largely unregulated or under-regulated, it is difficult to quantify the risks it presents. However, significant risks related to investor protection (due to lack of transparency and conflicts of interest) and financial stability have been identified. These include potential problems in valuations, high levels of leverage, and the increasing interconnection between counterparties and traditional financial markets.

Market risk: orange

Figure A1: Stock market prices

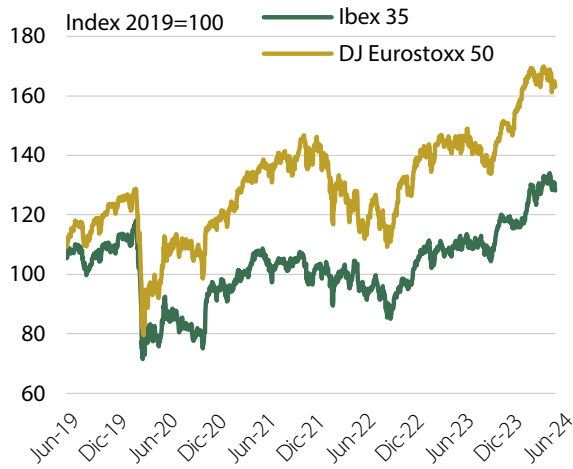
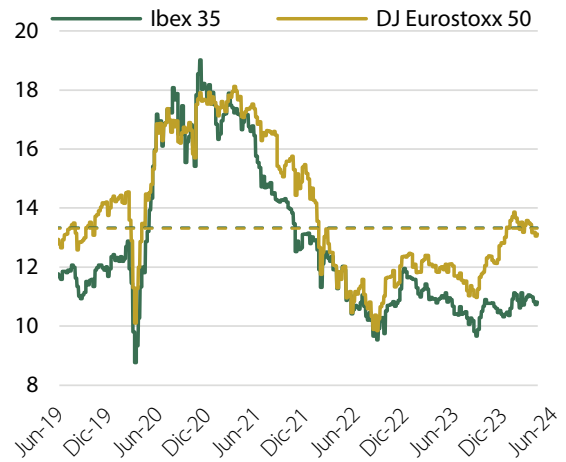


Figure A2: Price-earnings ratio (P/E)



The dashed lines correspond to the average P/E ratio calculated since 2000.

Figure A3: Short-term interest rates (3 months)

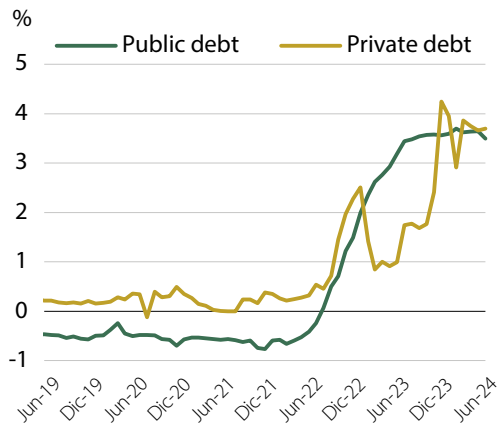


Figure A4: Long-term interest rates (10 years)

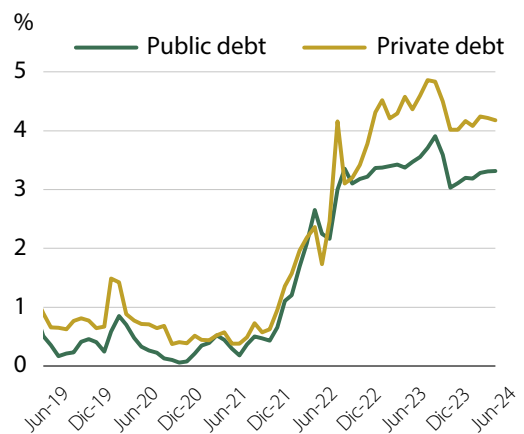
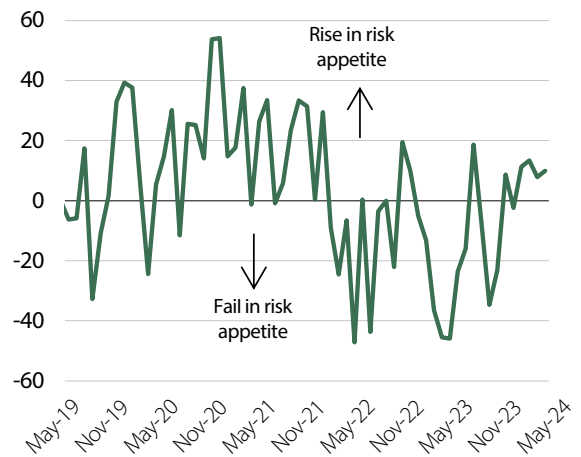


Figure A5: Oil price



Figure A6: Risk appetite (State Street)



Credit risk: green

Figure A7: Financing of the non-financial sector

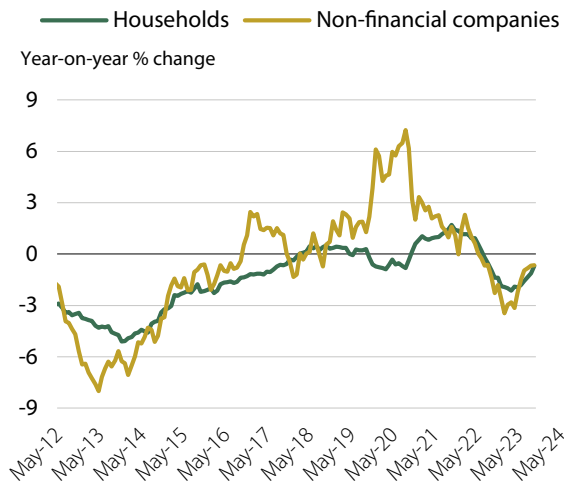


Figure A8: NPL ratio and unemployment rate

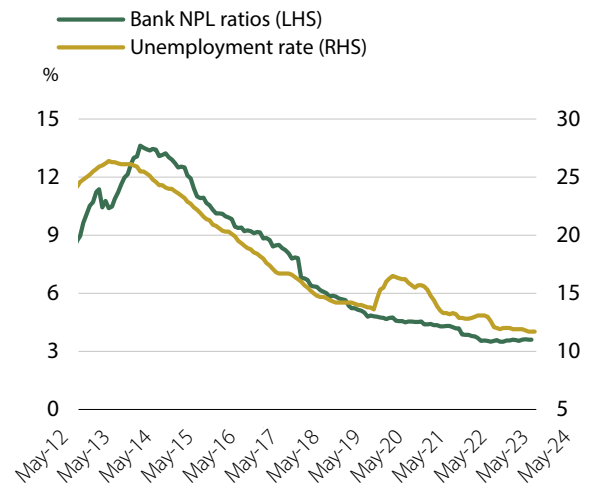


Figure A9: 10-year government debt risk premium (rate spread with Germany)

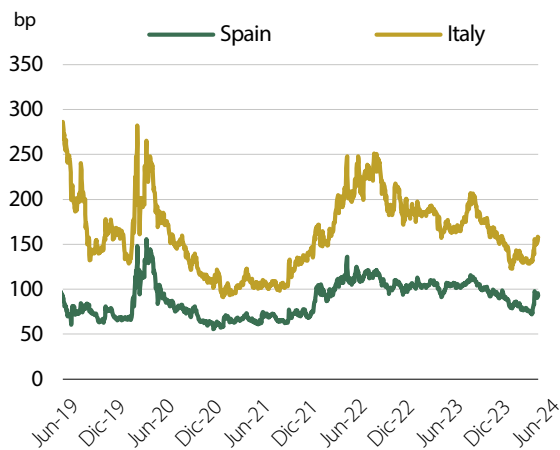


Figure A10: Private debt risk premium (5-year CDS)

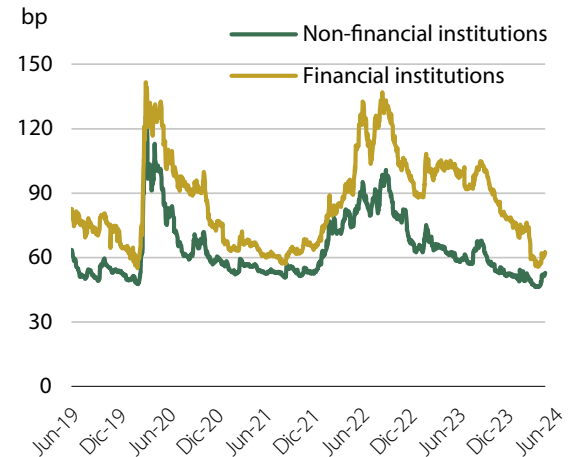


Figure A11: Housing prices (year-on-year change)

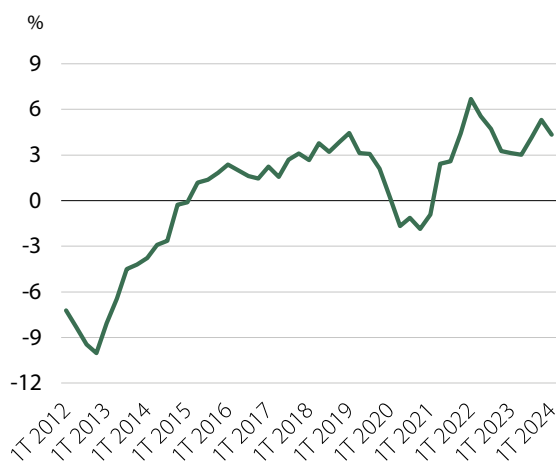
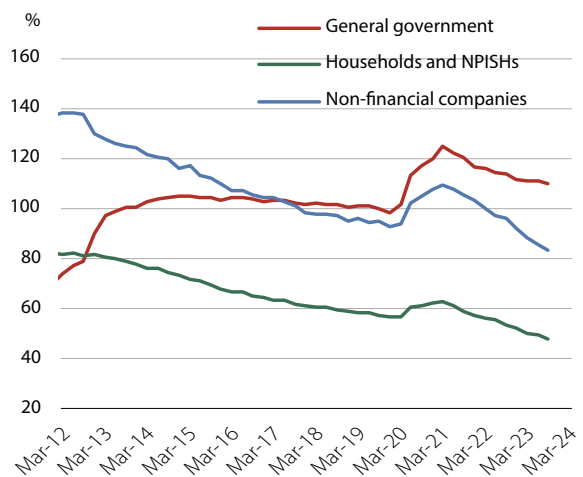


Figure A12: Indebtedness (% of GDP)



Liquidity, financing and fragmentation risk: yellow

Figure A13: Liquidity (spread bid-ask)

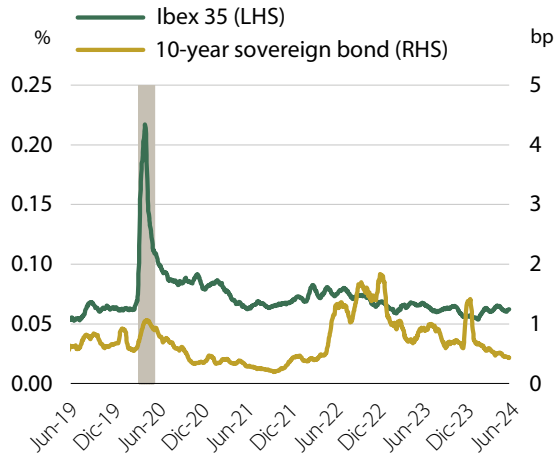


Figure A14: Volatility (1-month moving)

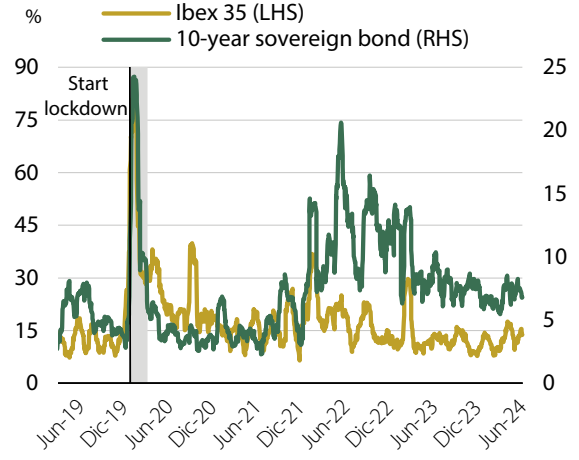


Figure A15: SIBF trading (1-month moving average)

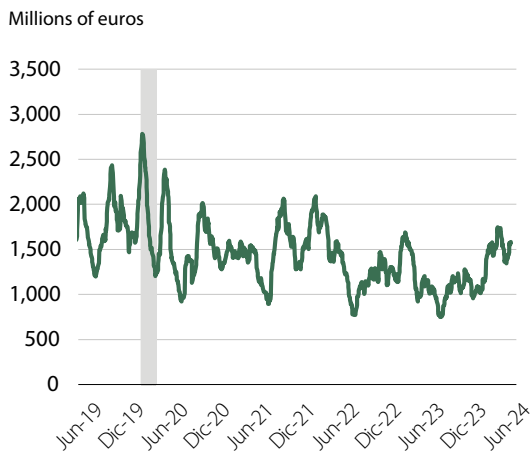


Figure A16: Interbank spread (LIBOR-OIS)



The shaded area corresponds to periods when short selling was banned.

Figure A17: Spread (Spain-EMU) on corporate lending rates

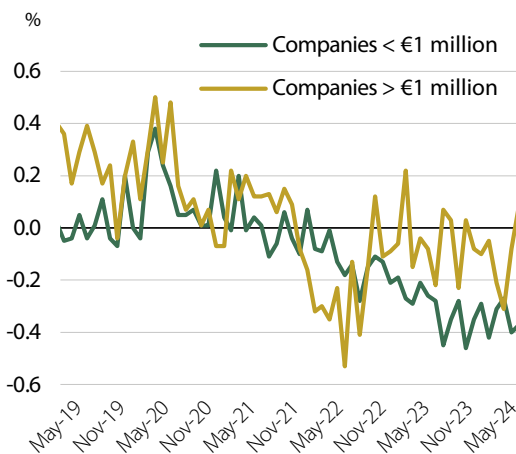
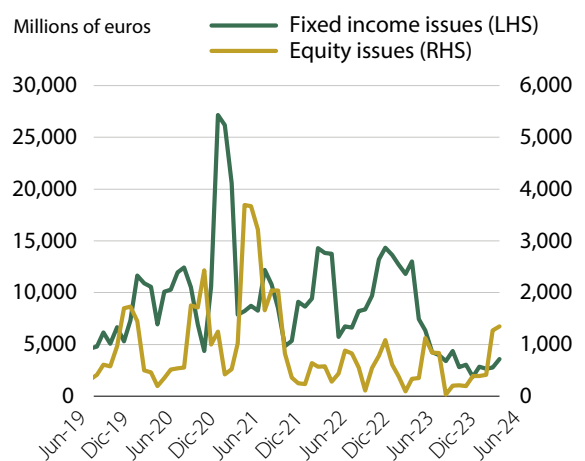


Figure A18: Issues (3-month moving average)



Macroeconomic risk: yellow

Figure A19: GDP (year-on-year change)

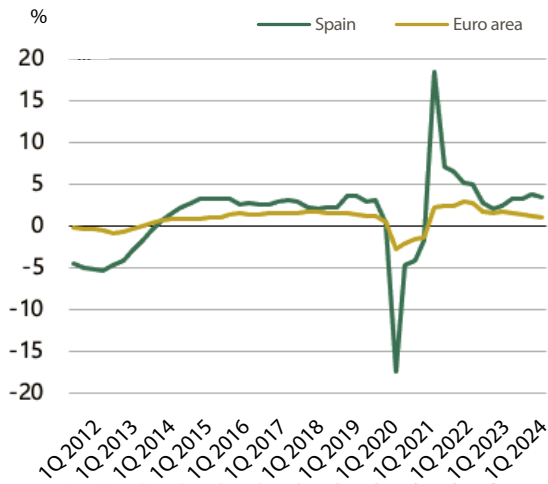


Figure A20: HCPI and core CPI (year-on-year change)

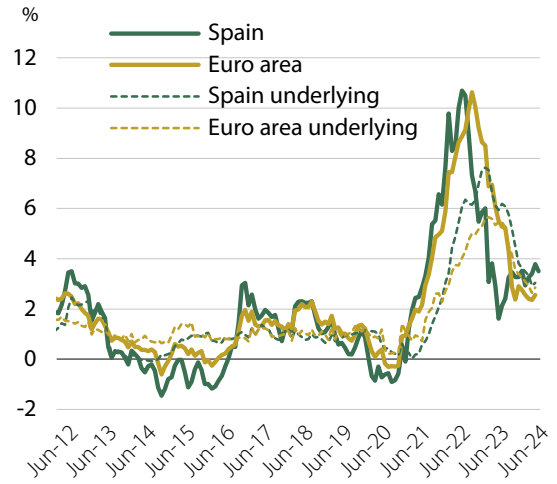


Figure A21: Unemployment (year-on-year change)

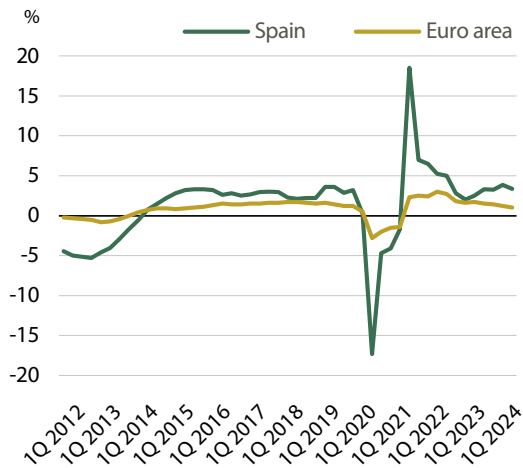
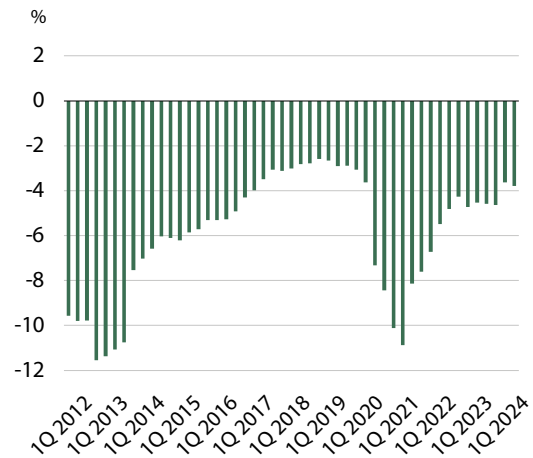


Figure A22: Public deficit (% of GDP)



Cumulative data for four quarters.

Figure A23: Exchange rates

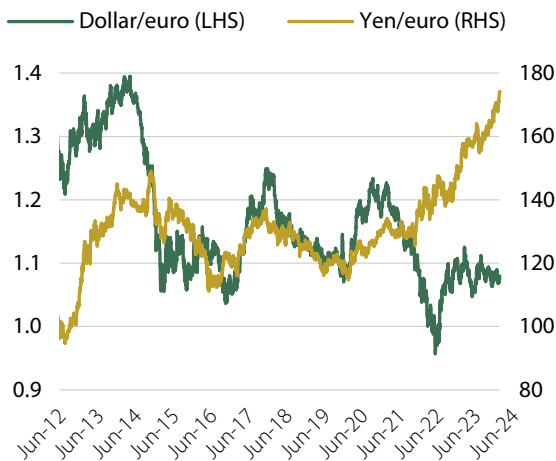
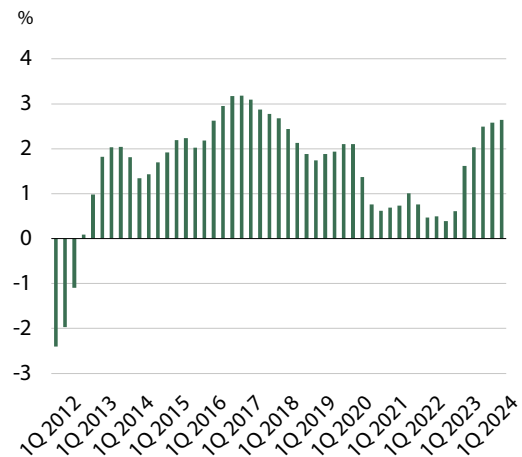


Figure A24: Current account balance (% of GDP)



Contagion risk: orange

Figure A25: Correlations among asset classes

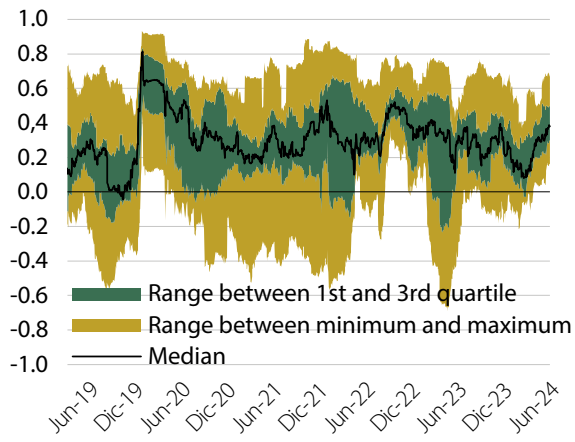
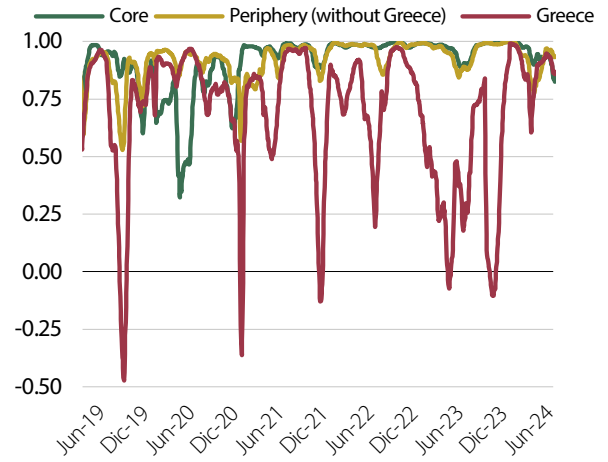
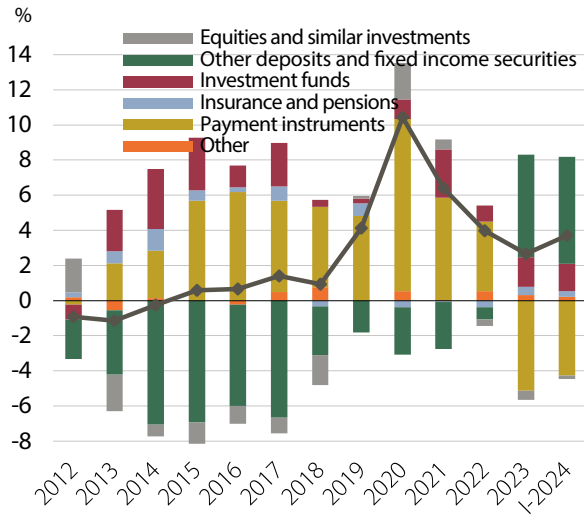


Figure A26: Correlation between the yield on 10-year Spanish bond and other European bonds



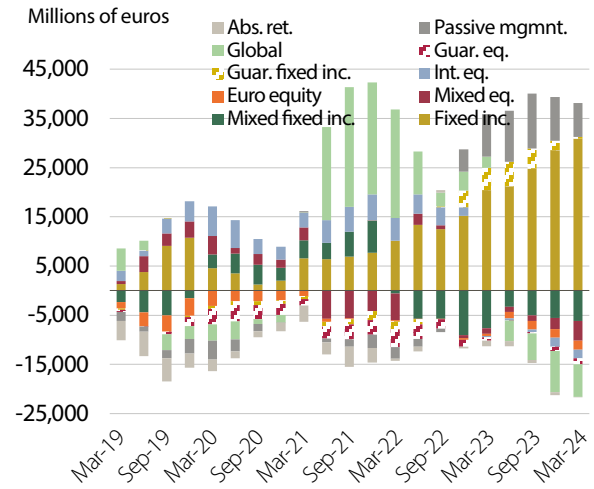
Investors

Figure A27: Households: net acquisition of financial assets (% GDP)



Cumulative data for four quarters.

Figure A28: Net subscriptions to investment funds



Cumulative data for four quarters.

Figure A29: Households: savings (% disposable income)

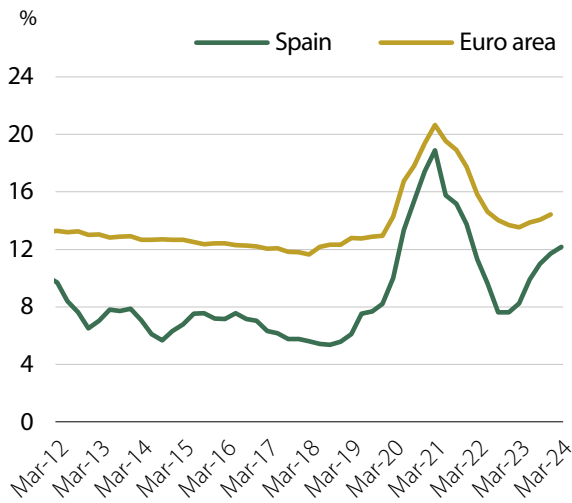
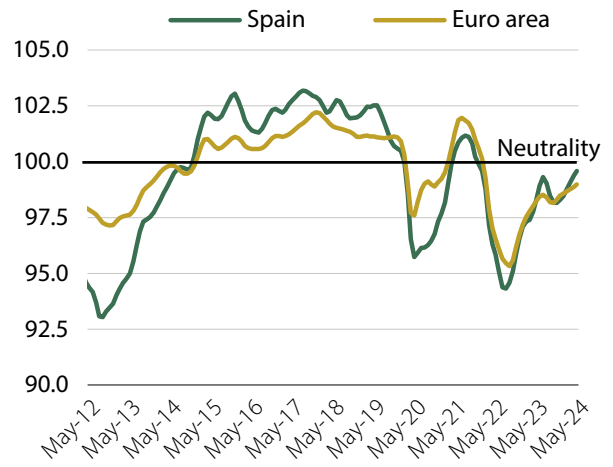
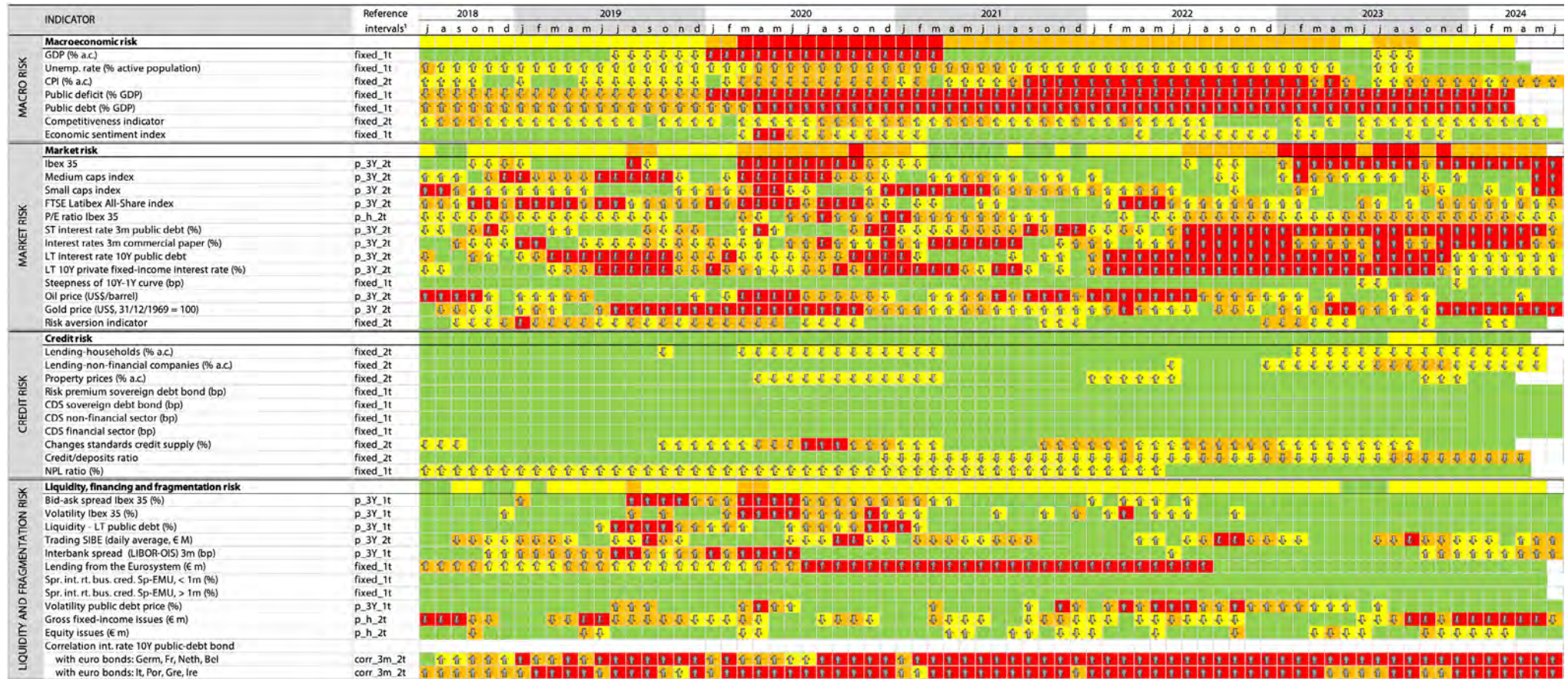


Figure A30: Consumer confidence index



Heat map: risk categories



Source: CNMV, Bloomberg and Refinitiv Datastream.

1 Reference intervals could be: i) "fixed": predetermined numerical thresholds, one (1t) or two-tailed (2t); ii) "corr_3m": 3 months windows correlation coefficients; iii) "p_3Y": percentiles obtained from 3 past years distribution, one (1t) or two-tailed (2t); or iv) "p_h": percentiles obtained from historical distribution..

Sustainable finance

Figure A31: CISs Articles 8 and 9 (numbers)

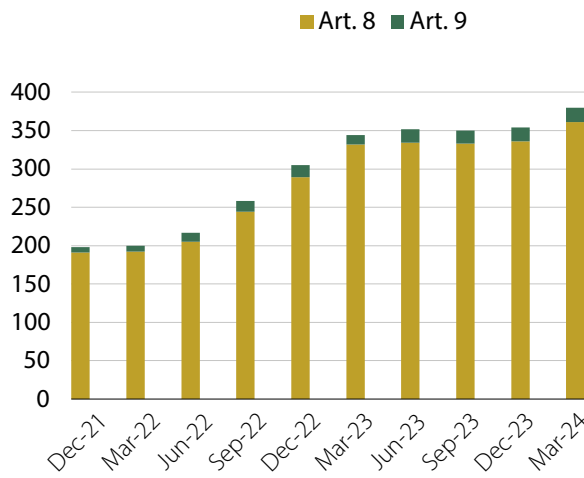
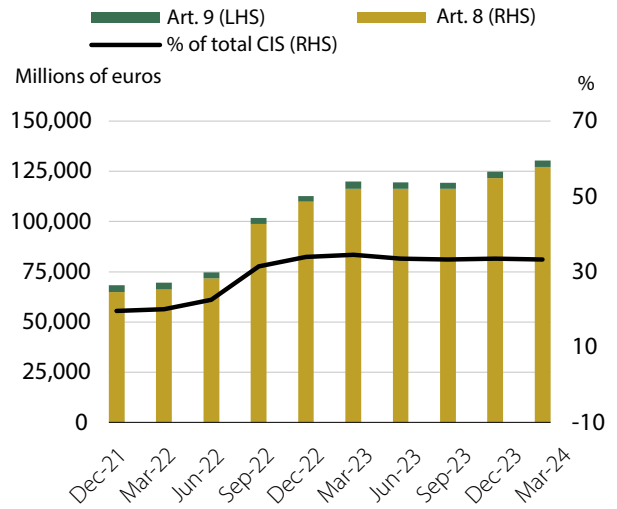


Figure A32: CISs Articles 8 and 9 (assets)



According to the SFDR Regulation.

Figure A33: ESG debt issues of Spanish issuers (type)

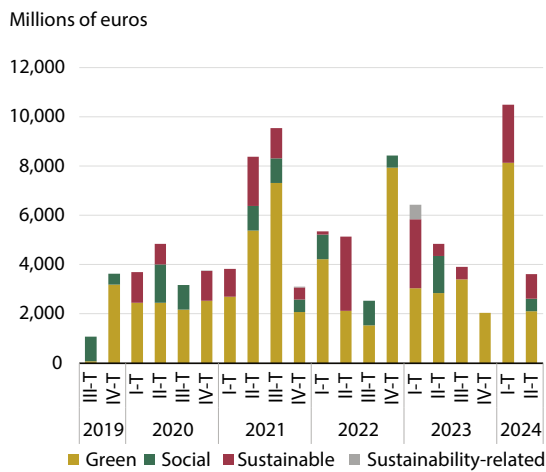


Figure A34: ESG debt issues of Spanish issuers (sector)

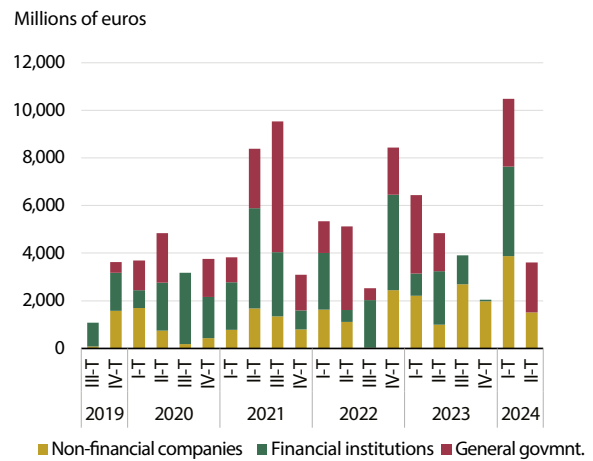
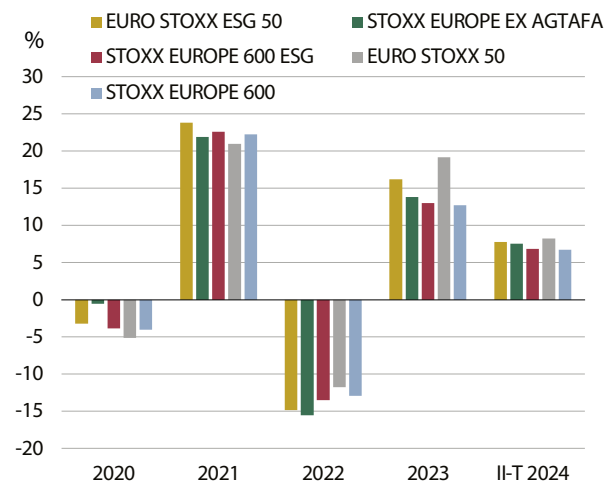


Figure A35: Coal price (EUR/tonne)

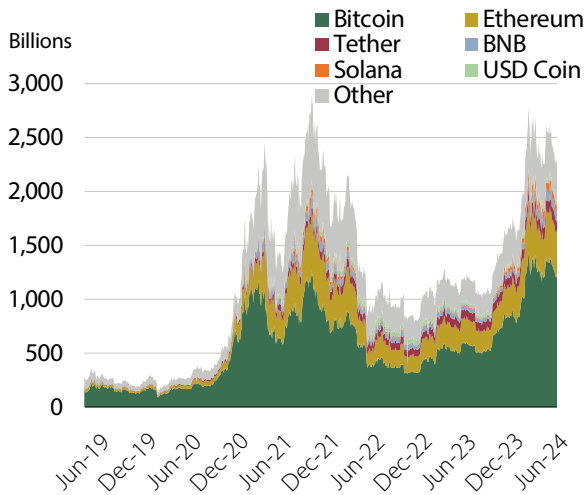


Figure A36: Yield of European ESG equity indices



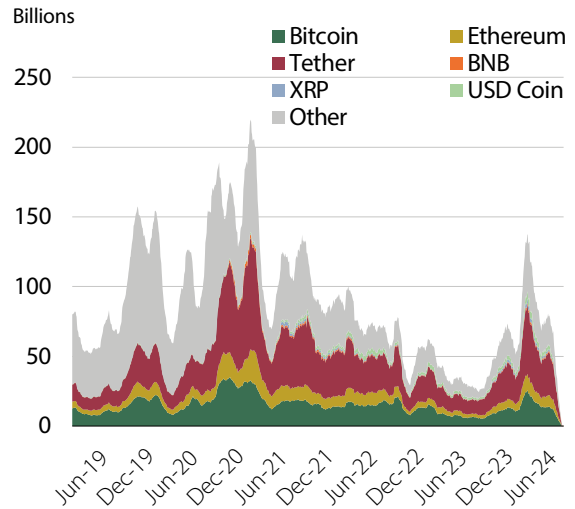
Crypto-assets

Figure A37: Crypto market capitalisation (US\$)



Tether and USD Coin are stablecoins.

Figure A38: Crypto trading (US \$)



Tether and USD Coin are stablecoins.

Figure A39: Non-stable crypto prices (US\$)

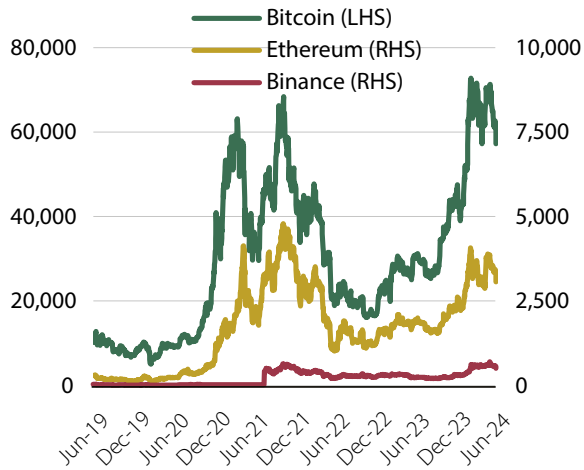


Figure A40: Bitcoin volatility

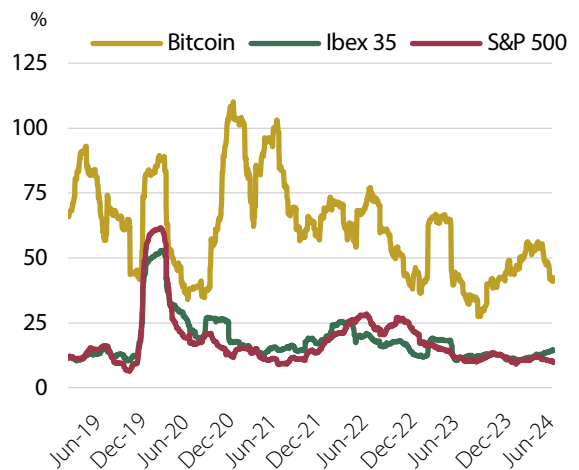
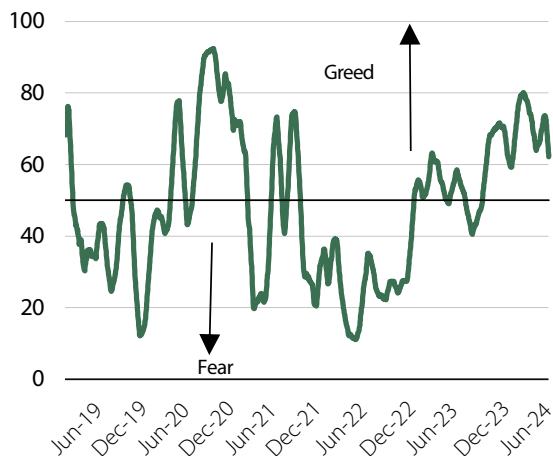


Figure A41: Bitcoin sentiment indicator (greed and fear index) (1-month moving average)



Explanatory notes

Sources of information: Most of the quantitative information used to define the indicators shown on the figures and heat maps of this Note are obtained from Refinitiv Datastream and Bloomberg. The following exceptions stand out: i) CIS data are obtained from the information available at the CNMV; ii) ESG issuance data is obtained from information from the Bank of Spain, the CNMV and Dealogic; iii) cryptocurrency capitalisation and trading indicators come from CoinMarketCap; and iv) the bitcoin sentiment indicator is obtained from Kaggle.

Spanish financial market stress index (Figure 1): The stress index provides a real-time measurement of the systemic risk facing the Spanish financial system, ranging from zero to one. To this end, stress is evaluated in six segments of the financial system (equities, fixed income, financial intermediaries, the money market, derivatives, and the exchange markets) which are then aggregated to obtain a single figure. The stress for each segment is evaluated by means of cumulative distribution functions, with the subsequent aggregation taking into account the correlation between segments. In this way, the index places greater emphasis on stress situations in which correlations are very high. In general terms, the stress variables chosen for each segment correspond to volatilities, risk premiums, liquidity indicators, and sudden loss of value. Econometric estimates indicate that index values below 0.27 correspond to periods of low stress in the financial system, while scores between 0.27 and 0.49 correspond to periods of medium stress, and values above 0.49 indicate periods of high stress. The methodology of this index follows the work of Holló, Kremer and Lo Duca in 2012, who proposed a similar index for the euro area. For further details on recent movements in this index and its components, see the CNMV's statistical series (market stress indicators), available at <http://www.cnmv.es/portal/Menu/Publicaciones-Estadisticas-Investigacion.aspx>. For further information on the methodology of this index, see Cambón, M.I. and Estévez, L. (2016). "A Spanish Financial Market Stress Index (FMSI)". *Spanish Review of Financial Economics*, Vol. 14, No. 1, pp. 23-41, or as CNMV Working Document No. 60 available at: http://www.cnmv.es/DocPortal/Publicaciones/MONOGRAFIAS/Monografia_60_en.pdf.

Heat map: summary by market and risk category (Figure 2 and final annex): The heat maps provided in this release show the monthly trend of the most important indicators in the Spanish financial system in recent years. They contain information on domestic securities markets, the banking sector and also certain macro-economic variables. The main purpose behind the production of these maps is to provide an idea of the position of the reference indicators in relation to their recent history (in most cases three years) or with certain predetermined limits, by associating this position with a certain colour. When an indicator changes from green to a warmer colour (orange or red), it does not necessarily mean the existence of risk. Instead, it indicates a movement towards an extreme value (very high or very low) over the period or range of values used as a reference. If an indicator remains at extreme values for a prolonged period, it may suggest the need for a more detailed analysis; that is to say, it may be interpreted as an alarm signal. The most comprehensive heat map includes 43 indicators⁵⁶, five of which are prepared by the CNMV. The large number of indicators taken into consideration allows us to make an analysis of vulnerabilities for each segment of the financial markets (equity income, fixed income, banking sector, etc.) or for different risk categories (macro, market, liquidity, credit, etc.), as shown in Figure 2. The colours of these aggregates (markets or risk categories) are assigned by calculating a weighted average of the values of the individual indicators they comprise. In each aggregate,

⁵⁶ Since June 2017, the heat map includes an additional indicator: the bid-ask spread of the 10-year sovereign debt bond.

one of the individual indicators determines the generation of the overall colour: for example, in macro-economic risk, the indicator used to calculate the aggregate is GDP. For more detail on the methodology and analysis of these maps, see Cambón, M.I. (2015). “Identification of vulnerabilities in the Spanish financial system: an application of heat maps”. *CNMV Bulletin*, Quarter I, pp. 109-121.

Contagion risk: The indicators that make up this block are somewhat more complex. We set out the most important of these indicators below:

- **Correlation between asset classes (Figure A27).** The correlation pairs are calculated using daily data in three-month windows. There are six asset classes: sovereign debt, private fixed income from financial institutions, fixed income from non-financial firms and Ibex 35 securities, financial companies, utilities and other sectors. A high correlation between the different classes of Spanish assets would indicate the possible existence of herding behaviour by investors. This situation could lead to high volatility in periods of stress. Meanwhile, diversification would offer fewer advantages since in this context it would be more difficult to avoid exposure to sources of systemic risk.
- **Correlation between the yield on the 10-year Spanish bond and other European bonds (Figure A26).** The correlation is calculated using daily data in three-month windows. The countries of the core group are Germany, France, the Netherlands and Belgium, and the peripheral countries are Portugal, Italy, Greece and Ireland.

Investors

- **Consumer Confidence Index (CCI) (Figure A30).** The Index is an indicator of household consumption and savings prospects resulting from their answers to questions related to their expected financial situation, their feelings about the overall economic situation, unemployment and savings capacity. A value above 100 indicates an increase in consumer confidence in relation to the future economic situation, due to which they are less likely to save and, consequently, more likely to increase their expenditure in the following 12 months. Values below 100 denote a pessimistic attitude towards the economic situation, which leads consumers to save more and consume less.

Sustainable finance

- **Yield of European ESG equity indices (Figure A36).** ESG equity indices include Eurostoxx 50 ESG and Stoxx Europe Sustainability ex AGTAF. The first is based on the Eurostoxx 50 index, based on which certain exclusion criteria are applied and, additionally, 10% of the companies with the worst ESG rating are replaced by companies of the same sector with a higher ESG rating. The excluded companies are, for example, those that do not fulfil the United Nations Global Compact Principles, those that are involved in arms disputes or tobacco producers. The second index related to ESG criteria contains information of a variable number of companies from 17 European countries that explicitly exclude those that obtain income from alcohol (A), gambling (G), tobacco (T), armament (A), firearms (F) and adult entertainment (A).

Crypto-assets

- **Bitcoin historical volatility (Figure A40).** Annualised standard deviation of daily price variations in 90-day windows.
- **Bitcoin sentiment indicator (greed and fear index)⁵⁷ (Figure A41).** This Index is a metric that assesses the prevailing market sentiment. It is based on different factors such as volatility, transaction volume, social media sentiment and surveys. It is measured on a scale of 0 to 100, in which the low values are interpreted as excessively negative market perceptions (fear) and the high values are understood as excessively optimistic perceptions (greed).

⁵⁷ [Bitcoin & Fear and Greed | Kaggle.](#)

