

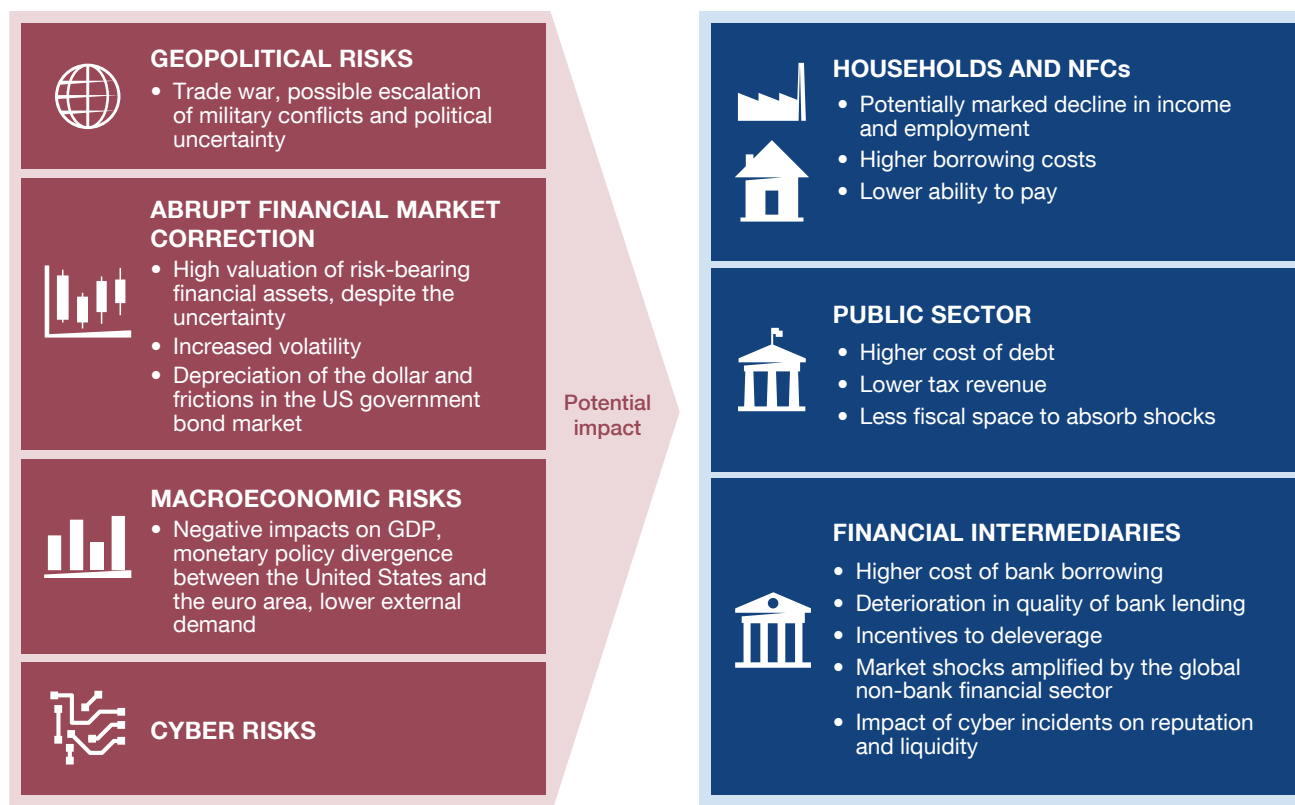
5

RISK ANALYSIS

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Figure 5.1

Risk analysis (a)



SOURCE: Banco de España.

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

This chapter discusses the risks to the stability of the Spanish financial system identified by the Banco de España and how they may interact with the vulnerabilities examined in previous chapters. This risk analysis is underpinned by the discussions that the Banco de España has held with various external experts (see Box 5.1) and by its own analysis.

5.1 Geopolitical risks

Geopolitical risks have increased since the Autumn 2024 *Financial Stability Report (FSR)* was published. The deteriorating geopolitical setting has been identified as the main risk to financial stability in the Banco de España's own analysis and by most of the external experts consulted (see Box 5.1).

The new US Administration's policies, which remain surrounded by high uncertainty, have begun to exert an adverse impact on global financial conditions and activity. The shift towards a more protectionist US trade policy in the form of tariff hikes has triggered downward revisions to the outlook for global economic growth (see Section 5.3) and unleashed significant turmoil on the financial markets (see Section 4.2 and Section 5.2). Since the tariffs were announced on 2 April, the uncertainty about US policies and the potential global response has increased markedly, from already high levels (Chart 5.1). Should the tariff escalation with the rest of the world and, in particular, a trade war with China crystallise or expand, the impact on global economic activity and the international financial markets could become more adverse than it has been so far.

The economic consequences of the US protectionist measures crucially depend on the response from other countries and any future negotiations. The shock represents a major shift in long-standing trade relations, and its very scale makes it difficult to assess, as it could impact global value chains and prompt significant trade diversion. In any event, the US tariffs will have a mixed effect across countries, depending on their different trade networks and the specific measures applied in each case. Moreover, at this point it is difficult to predict the final outcome of the trade negotiations between the United States and other countries (such as China), and how strongly the effects of the deals reached will be felt through trade and financial channels. The recently announced agreements on trade between the United States and China ease the tensions, but they do not fully resolve the existing uncertainty.¹ In this respect, Box 5.2 analyses different hypothetical scenarios and their impact on activity and inflation in various geographical areas.

For the European Union (EU), the negative impact of these policies on economic activity could potentially be significant, as its economy is highly exposed to international trade. The effect would vary across countries, with Spain expected to be one of the least affected on account of its lower direct trade exposure to the United States. The impact of higher US tariffs on EU inflation is uncertain and difficult to quantify at present. On the one hand, they could put upward pressure on prices (due to higher production input prices on the international markets, for instance), but on the other, they could have deflationary effects (for example, owing to a fall in spending prompted by subdued household and business confidence, a decline in external demand from the United States or a diversion of China's trade flows towards the EU).

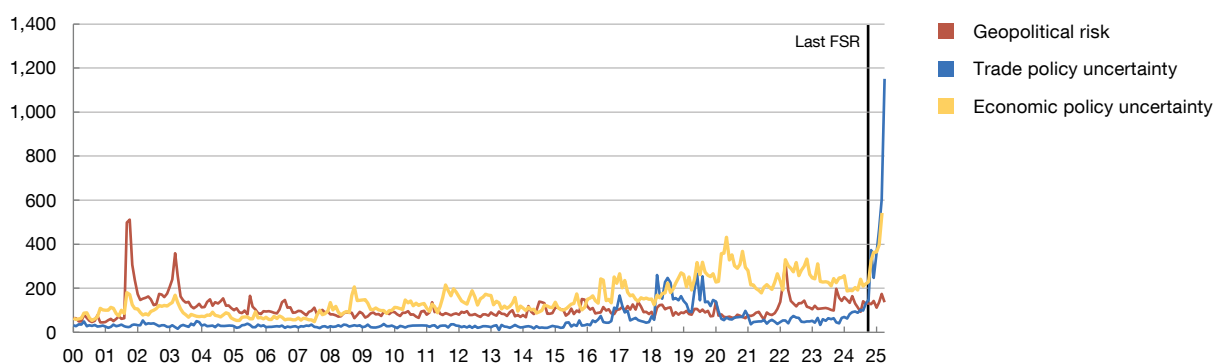
The continued expansionary fiscal stance in the United States poses significant risks to global macro-financial conditions. In the short term, it could initially foster growth in US GDP and global economic activity as a whole, operating in the opposite direction to other policies, such as the tariff increases. However, it would also heighten

¹ On 12 May 2025 the United States and China **announced** they would de-escalate the trade war, including a partial suspension of tariffs for 90 days.

Chart 5.1

The indices measuring trade and economic policy uncertainty have risen considerably since the US tariff hikes were announced

5.1.a Indices of geopolitical risk and of trade and economic policy uncertainty (a)



SOURCE: Economic Policy Uncertainty. Latest observations: April 2025 (geopolitical risk index and trade policy uncertainty index) and March 2025 (economic policy uncertainty index).

a The geopolitical risk index is drawn from Dario Caldara and Matteo Iacoviello. (2021). "Measuring Geopolitical Risk". *American Economic Review*, 112(4), pp. 1194-1225. The trade policy uncertainty index is taken from Dario Caldara, Matteo Iacoviello, Patrick Molligo, Andrea Prestipino and Andrea Raffo. (2020). "The economic effects of trade policy uncertainty". *Journal of Monetary Economics*, 109, pp. 38-59. The economic policy uncertainty index is drawn from Steven J. Davis. (2016). "An Index of Global Economic Policy Uncertainty". NBER Working Paper Series, 22740, National Bureau of Economic Research.

upside inflation risks, which could prompt a tightening of both US monetary policy and global financing conditions. In addition, a loose fiscal policy could increase the risk profile of US government bonds, eroding their value as a safe-haven asset and impacting investor confidence worldwide.

This US policy uncertainty also extends to financial regulation. Relaxing regulation could stimulate global economic activity in the short term and put competitive pressure on financial institutions in other jurisdictions, where short-term incentives to follow a similar path of deregulation may emerge. Statements by Federal Reserve System board members and some of the Executive Orders enacted by President Trump in his first few months of office reinforce the expectation of more lax financial regulation in the United States (see Box 5.3). The pivotal role played by the US financial system and the dollar in international financial transactions means that any weakening of the country's financial regulation could lead to a greater build-up of systemic risks at global level.

The high uncertainty surrounding US economic policy and rising protectionism could weaken the role of dollar-denominated assets in smoothing international trade and financial flows. In this respect, any loss of confidence in these assets would have significant adverse consequences for the global financial system, where the US dollar plays a central role, on account of the depth and liquidity of the US financial markets and its institutional strength and macroeconomic stability (Charts A.2.5.1.1 and A.2.5.1.2 in Annex 2). The recent changes in US economic policy could ultimately erode confidence in its economy, diminishing the appeal of its government bonds and encouraging an international shift towards the use of

other currencies. This would represent a major change in the international monetary system and contributes to the current high level of uncertainty. However, given the present lack of an alternative to the dollar among the main currencies, it may drive financial fragmentation, which in turn would lead to efficiency losses and higher intermediation costs on the global financial markets.²

Military conflicts and increased defence spending

Meanwhile, there is still a possibility that the conflicts in the Middle East and the war between Russia and Ukraine could escalate, despite diplomatic efforts to the contrary.

If this were to happen, economic conditions worldwide would be adversely affected by global supply chain disruptions, impacting energy commodities in particular, and a widespread increase in risk aversion. Added to this are the renewed military tensions between India and Pakistan, which had been dormant in recent years.

In this new geopolitical setting, the EU has announced extensive programmes to raise military spending to address the greater defence needs. This increase in government spending could provide something of a boost to activity in the future, but it has a high budgetary cost. The use of debt issuance to finance at least part of this spending could drive up long-term interest rates and tighten financing conditions within the EU. It would also reduce fiscal resilience and could crowd out financing to the private sector. Raising the tax burden to fund this spending would avoid the need to increase public debt, but it would have a more immediate negative impact on activity.

Political uncertainty in Europe

The political uncertainty in Europe makes economic policy developments less predictable, particularly in the fiscal realm. In France, the political situation generates uncertainty in key policies, not least its fiscal policy where it is running a high deficit of 5.8% of GDP. In Germany, the formation of a coalition government could ease the country's political uncertainty, although the loss of the new Chancellor's first investiture vote on 6 May seems indicative of some fragility. Moreover, the underlying issues of adapting the economy to an environment of heightened geopolitical tensions (linked, for example, to its energy supply, trade competitiveness and increased defence spending) will likely continue to pose major political challenges in Germany. Turning to Spain, the parliamentary situation again makes it less easy to predict economic policy developments, in particular with respect to the fiscal consolidation plans. Spanish firms identify this uncertainty as one of the main potential constraints on their activity (see Section 2.1).

² Financial fragmentation refers to the break-up or division of a financial market into a number of submarkets with limited or no interconnections.

With its high degree of external openness, the Spanish economy could be affected by unfavourable developments in global activity in the event of a geopolitical crisis. Specifically, a slowdown in global GDP growth due to rising protectionism and the uncertainty surrounding the scale of such policies could curb activity in Spain through various trade and financial channels. As already mentioned, one factor mitigating the risks to external demand would be the fact that Spain has a lower direct trade exposure to the United States than other European countries.

The financial position of all economic sectors in Spain would be significantly affected by the materialisation of geopolitical risks. A cooling of global economic activity would have an adverse impact on the income of households and non-financial corporations (NFCs), eroding their ability to meet their payment obligations. This in turn would push up the cost of loan loss provisions for the banking sector. Moreover, higher borrowing costs would exert further pressure on the interest burden and credit quality of households and NFCs, and the banking sector would also face higher funding costs, especially for financial market funding. The impact on banks' net interest income generation is unclear and will depend on which yield curve segments are most affected in these scenarios. In any event, the risks to bank profitability are tilted to the downside due to the possibility of a significant deterioration in credit quality.

Nevertheless, the degree of sectoral vulnerability to these risks is mixed. Such concerns are partially mitigated by the low level of indebtedness among households and NFCs, along with the availability of extensive retail financing from the banking sector. However, general government, which is in a more vulnerable starting position, could face greater financial constraints in the event of an increase in its borrowing costs.

5.2 Risk of an abrupt financial market correction

High valuations of risk-bearing financial assets in an uncertain environment

The possibility of sudden, sharp corrections in the global financial markets continues to pose a high risk to financial stability. As described in Chapter 4, risk-bearing financial asset valuations remain high, despite the geopolitical uncertainty and the market correction after the tariff measures were announced by the new US Administration in April. By historical standards, equity risk premia³ and high-yield corporate debt spreads⁴ are low. Indeed, despite the corrections observed since early April, both in the United States and Europe equity risk

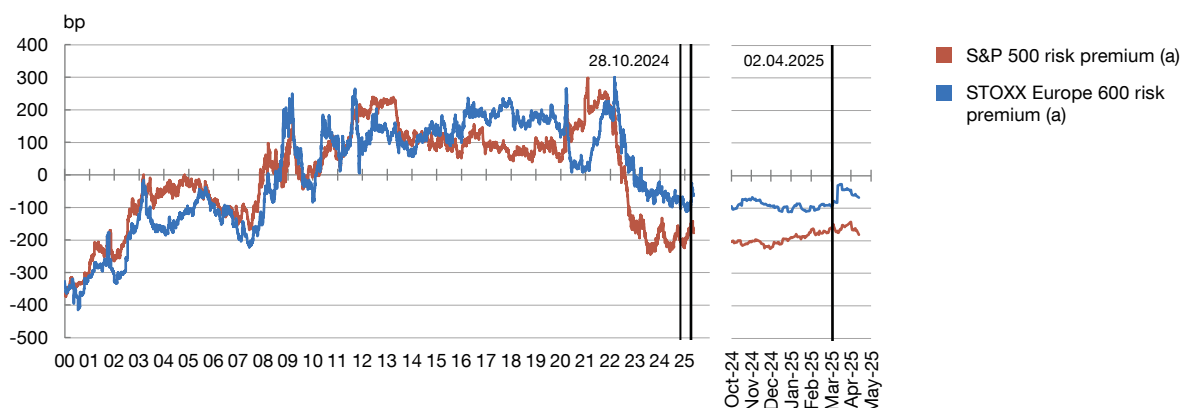
³ The equity risk premium is the difference between the return required of a stock market investment and the risk-free rate. A low (high) premium suggests that stock market investors are more (less) willing to take risks and will thus demand a lower (higher) return.

⁴ Corporate debt spreads are defined as the difference between the return required of corporate debt securities and the risk-free rate at the same term. For more information, see Chart 4.12.

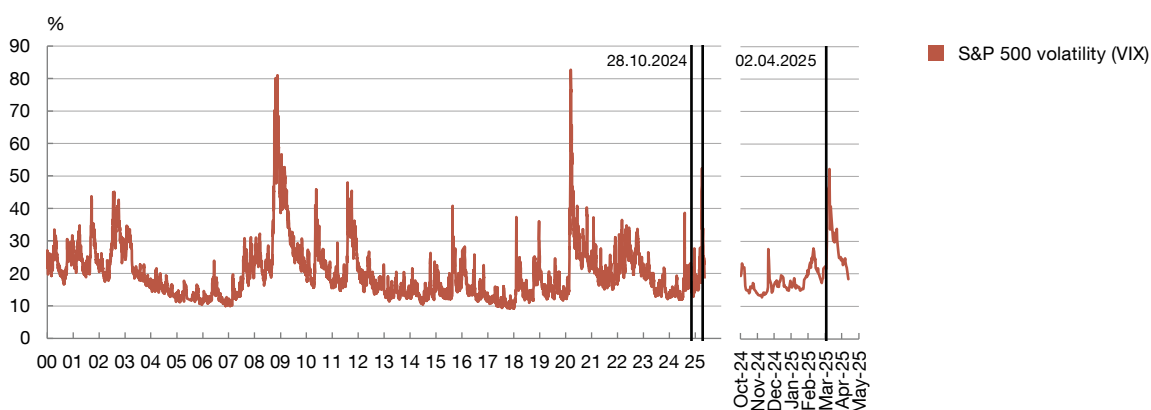
Chart 5.2

Equity risk premia are low by historical standards, despite marked geopolitical uncertainty and the recent increase in volatility

5.2.a Equity risk premia



5.2.b Stock market volatility



SOURCES: Banco de España, Bloomberg Data License and LSEG Datastream. 28.10.2024 is the cut-off date for the last report. 02.04.2025 is the date of the tariff war escalation. Latest observation: 12 May 2025.

a The data reflect deviation from the 2000-25 average. The equity risk premium is calculated drawing on a two-stage dividend discount model (Russell J. Fuller and Chi-Cheng Hsia. (1984). "A Simplified Common Stock Valuation Model". *Financial Analysts Journal*, 40(5), pp. 49-56). The average in the period 2000-25 is 449 bp for the S&P 500 and 560 bp for the STOXX Europe 600.

premia are at low levels not seen on a sustained basis since 2008 (Chart 5.2.a). Stock market volatility, meanwhile, has returned to levels in line with its historical average (Chart 5.2.b).

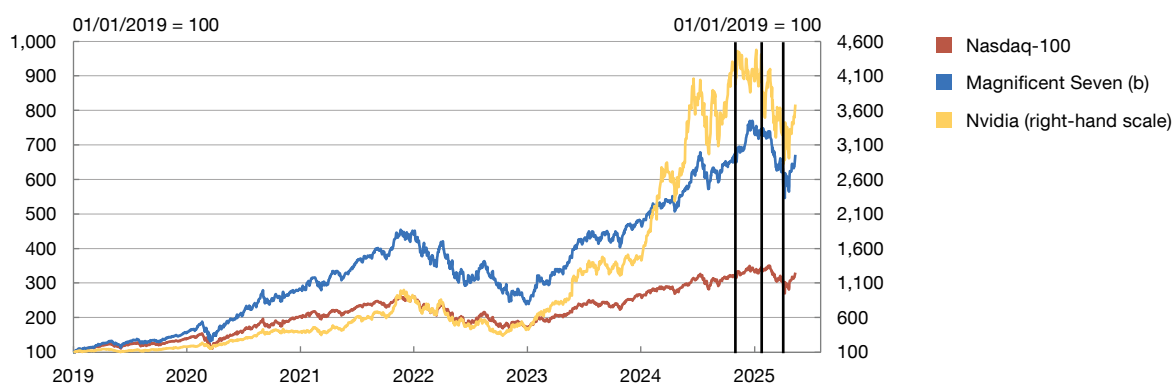
These valuations could be fragile, as they continue to be based on highly favourable macroeconomic and corporate earnings forecasts. A shift in the investor outlook caused by the materialisation of adverse shocks (such as unexpected changes in economic and trade policies or fresh adverse geopolitical events) could trigger sudden stock price corrections, which could in turn be amplified if illiquid or highly leveraged financial intermediaries were to engage in fire sales of their assets. Against this background, the spike in volatility observed in April points to an increased fragility of stock valuations (Chart 5.2.b).

A possible correction in tech firms' capitalisation adds a further market risk factor. As indicated in Section 4.2 and in the previous edition of this report,⁵ market capitalisation is highly concentrated among a small number of tech firms. This opens up the possibility of abrupt, far-reaching market corrections, should there be a change in expectations about the profits of technological innovation or these firms' ability to retain them. The arrival of Deepseek and its negative effect on the valuation of firms linked to the manufacture of advanced artificial intelligence (AI) hardware illustrate the uncertainty surrounding such expectations (Chart 5.3). Despite this correction and the subsequent tariff-induced adjustment, tech sector valuations remain at high levels.

Chart 5.3

Since 2023 the increase in stock market valuations has been concentrated among a small group of US tech firms, exposing the entire stock market to their business risks

5.3.a US stock market (a)



SOURCES: Banco de España and LSEG Datastream. Latest observation: 12 May 2025.

- a The vertical lines correspond to 28 October 2024 (cut-off date for the last FSR), 27 January 2025 (announcement of the R1 model by Chinese tech firm DeepSeek) and 2 April 2025 (tariff war escalation).
b The Magnificent Seven are Apple, Nvidia, Microsoft, Amazon, Meta, Google and Tesla.

Possible impacts of the financial market risks

Although the risks of a financial market correction largely stem from exogenous factors, they are nonetheless relevant to the Spanish economy owing to international interconnectedness. For example, potential shocks to the value of US tech firms or to long-term Treasury yields would result in tighter global financial conditions owing to the pivotal position of the US financial system in the global markets. In this respect, the frictions in the US government bond market and the depreciation of the dollar – described in the previous section and in Chapter 4 – underscore the significance of financial market risks in the United States. Against this backdrop, the fact that Spain has a high level of public debt could make the cost

5 See Box 1.2 of *Financial Stability Report. Autumn 2024*.

of such debt more sensitive to shocks. Spain's banking sector, households and NFCs could also see a rise in their borrowing costs, albeit from a stronger initial position. In such a scenario, at the international level some highly leveraged non-bank financial intermediaries with tight liquidity positions (such as open-ended international investment funds and hedge funds) could amplify the valuation corrections and transmit market tensions through their interconnections with other intermediaries.

5.3 Macroeconomic risks

Lower global growth

The global economy continued on its growth path in 2024 H2. However, as 2025 has progressed, the indicators have shown signs of a considerable downturn in the global economic outlook (Chart 5.4.a). Increasing uncertainty about US economic policies and the trade restrictions discussed above has prompted a considerable deterioration in business and consumer confidence indicators. As noted earlier, the latest IMF forecasts point to a widespread economic slowdown across most economies. The outlook for the United States and China is adversely impacted by the tariff escalation, while growth projections have also been revised down for the euro area. The modest GDP growth forecast for the euro area is underpinned by services and private consumption, and by the anticipated fiscal expansion in Germany.

In Spain, growth is expected to continue in the coming quarters, albeit at a more moderate pace, despite the evident downside risks posed by the highly complex international situation. In 2024 the improvement in activity in Spain was driven, in particular, by government and private consumption and strong services exports. The growth projections published in March – revised up compared with those available when the Autumn 2024 FSR was published – expected growth to be underpinned mainly by domestic demand, especially private consumption, and stronger gross capital formation, with the external sector's contribution turning negative.⁶ The most recent economic, trade and geopolitical developments reflect the materialisation of some of the downside risks considered in those projections, which were based on assumptions set before the new US tariff policy was announced (Banco de España *Annual Report 2024*).

Monetary policy divergence in the main advanced economies

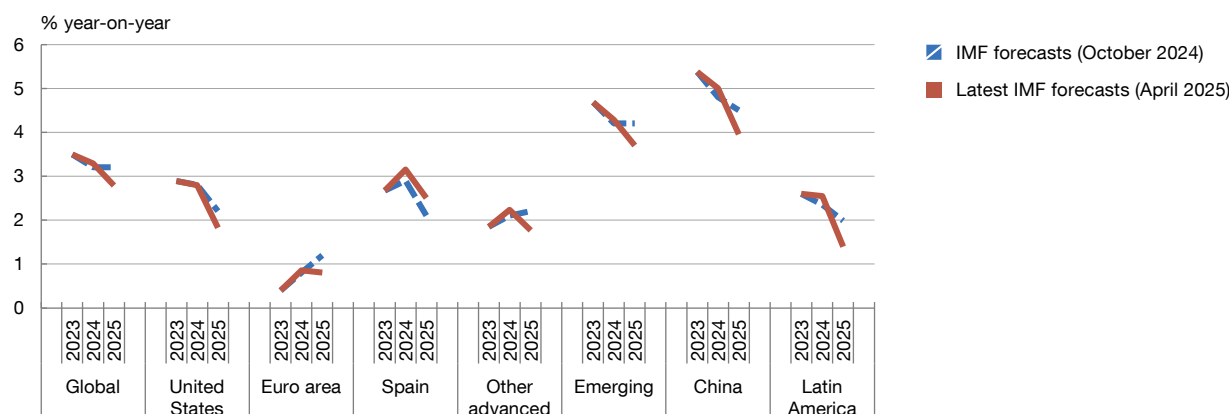
The normalisation of inflation has decelerated worldwide in the recent period. Inflation rates have stopped falling in most regions in recent months, owing to downward stickiness in services inflation and rising energy prices. Short-term inflation expectations have risen, particularly in economies such as the United States, amid growing protectionist tensions.

⁶ Macroeconomic projections and quarterly report on the Spanish economy. March 2025.

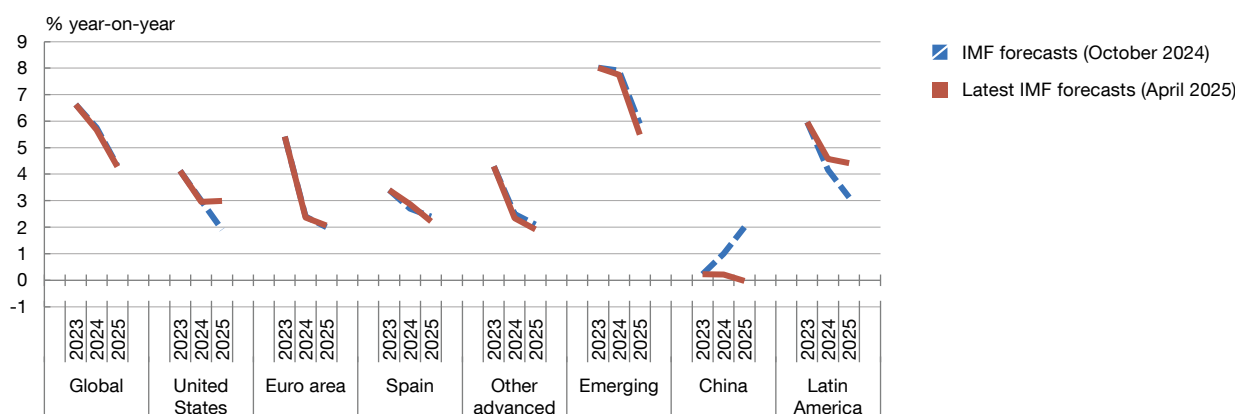
Chart 5.4

The global growth outlook has been revised down amid high geopolitical and trade uncertainty

5.4.a Actual and forecast GDP growth (a)



5.4.b Actual and forecast inflation (a)



SOURCE: IMF.

a WEO aggregates except Latin America (Brazil, Chile, Colombia, Mexico and Peru).

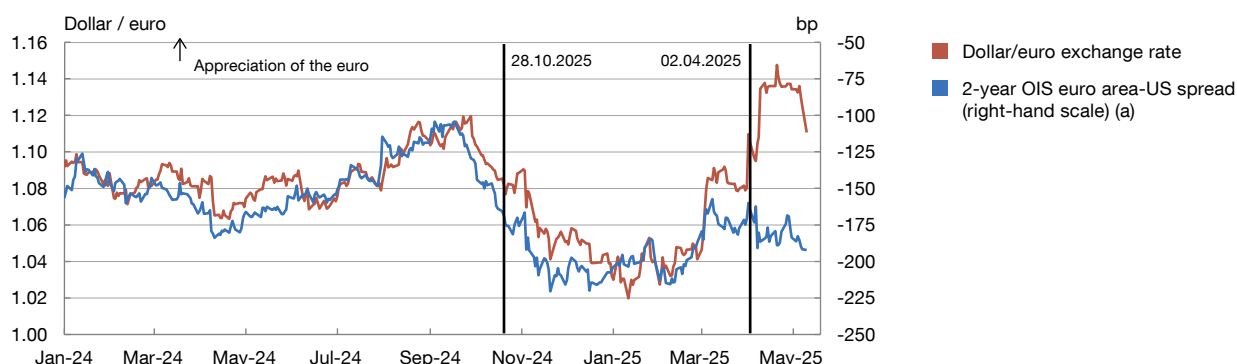
However, looking ahead to the coming quarters, under the baseline scenario for the euro area, inflation is still expected to gradually converge towards the 2% target level over the projection horizon (Chart 5.4.b).

Against this backdrop, monetary policies in the main advanced economies have begun to diverge. While the European Central Bank has continued to cut policy interest rates and markets and analysts have maintained their expectations of further rate cuts throughout 2025, in the United States the Federal Reserve halted monetary easing in January. This divergence and the different growth outlooks have been reflected in foreign exchange market developments, with the dollar appreciating up to end-2024 and exchange rate volatility in 2025 (Chart 5.5). In recent months, the depreciation of the dollar is associated more with the uncertainty surrounding other US economic policies than with standard monetary policy considerations.

Chart 5.5

Despite the deeper monetary policy rate cuts in the euro area, the dollar has depreciated against the euro of late, influenced by trade tensions

5.5.a Interest rate spread and bilateral exchange rate. United States vis-à-vis the euro area



SOURCES: Banco de España, Bloomberg Data License and LSEG Datastream. 28.10.2024 is the cut-off date for the last report. 02.04.2025 is the date of the tariff war escalation. Latest observation: 12 May 2025.

a The OIS rate approximates the risk-free interest rate.

Emerging market economies are particularly vulnerable to the monetary policy uncertainty in the United States and the value of the dollar. This uncertainty could give rise to tensions in international financial markets and abrupt shifts in capital flows and global financial conditions that would likely have a greater impact on these economies.⁷ In turn, this could lead to many of them adopting a more restrictive monetary policy stance and, consequently, to a decrease in bank credit. The emerging economies potentially most vulnerable to global financial tensions are those that have a higher share of foreign currency-denominated debt or a higher presence of foreign investors in their local debt markets (Chart 5.6.a). So far, these economies have proved resilient to the uncertain environment (see, for example, Chart 4.14), but the identified risks remain.

Other macroeconomic risks

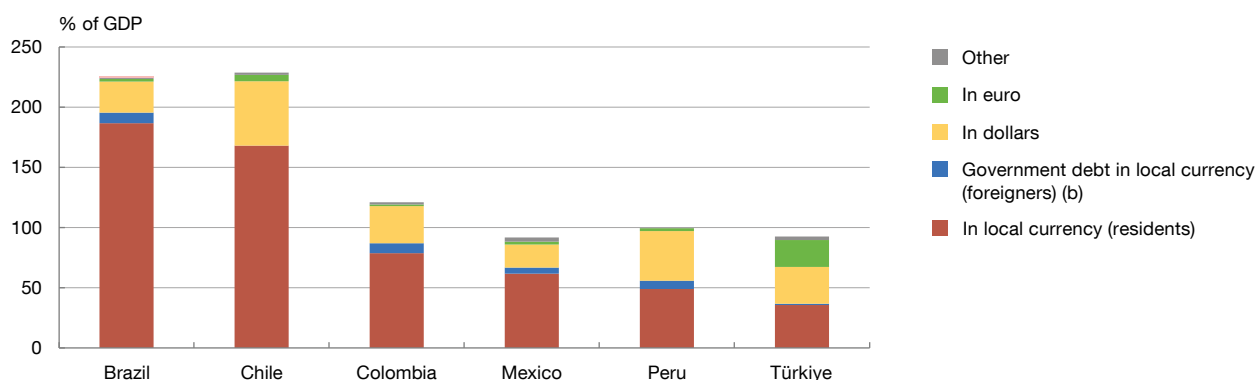
The Spanish banking system conducts business in emerging economies where additional risks linked to fiscal imbalances and their external position are identified. In some of these economies, such as Mexico or Brazil, the most significant risks relate to fiscal vulnerabilities (Chart 5.6.b). Meanwhile, Türkiye continues to gradually correct its macro-financial imbalances, although reducing inflation is proving to be a very slow process and this could limit the monetary easing cycle initiated by the Turkish central bank.

⁷ Report on the Latin American economy. First half of 2024 (p.18).

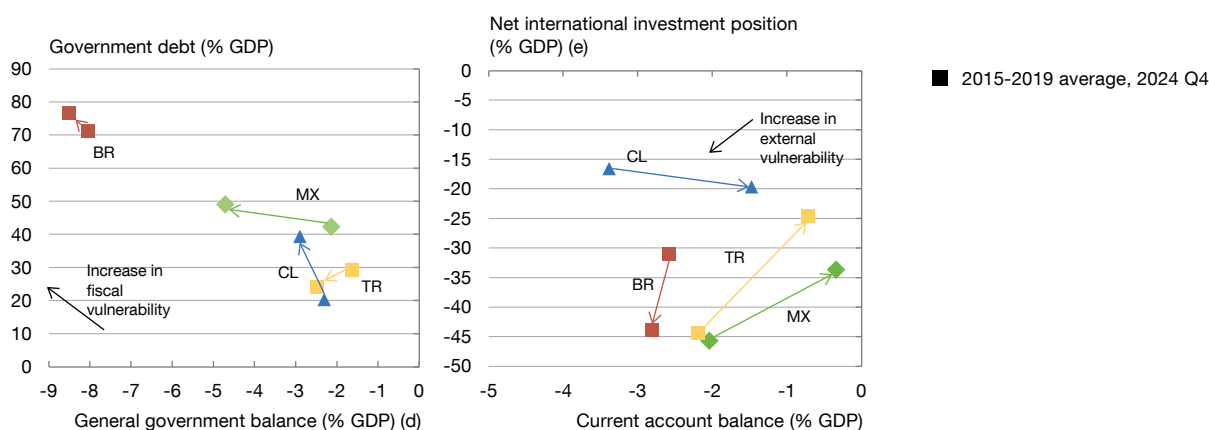
Chart 5.6

Emerging market economies with higher foreign currency-denominated debt and a worse fiscal position are more financially vulnerable to the current risk environment

5.6.a Composition of debt by currency (a)



5.6.b Vulnerability indicators (c)



SOURCES: Refinitiv and national statistics. Latest observation: 2024 Q4.

a Breakdown by currency of the debt of NFCs, households, banks and the public sector.

b Government debt in local currency held by non-residents.

c The value pairs for each variable are the average for the period 2015-19 (starting point, tail of the arrow) and 2024 Q4 (end point, tip of the arrow). BR: Brazil, CL: Chile, MX: Mexico and TR: Türkiye.

d General government surplus (+) or deficit (-) as a percentage of GDP.

e External assets less external liabilities (stocks) as a percentage of GDP.

The Spanish economy faces additional risks to growth, linked to employment, immigration and housing. Growth could be dampened if job creation were to underperform expectations or migratory flows were to slow, considering that both have been key drivers of Spanish economic growth in the recent period. Moreover, should housing affordability problems worsen, they could become a bottleneck for growth, as it would mean that more resources are allocated to housing and fewer to other goods and services. Such difficulties could also restrict labour mobility and the associated greater competitiveness and productivity gains, hampering potential growth.

5.4 Cyber risks

Managing cyber risks is a priority for the financial sector. After declining in the wake of the pandemic, over the last two years the number of significant cyber incidents at European banks – especially denial-of-service (DoS) and ransomware attacks on service providers⁸ – has escalated (Chart 5.7). Indeed, in 2024, they reached an all-time high in the historical series available.⁹ Discussions with external analysts (again, see Box 5.1) and the supervisory information available show that Spanish banks are addressing these risks as a matter of priority, as they constitute one of their largest emerging threats. This perception is also shared at the European level.¹⁰

Although cyber risks can potentially have a highly disruptive impact on banks' operations, it is not apparent how they might feed into a financial stability crisis. The most plausible way in which cyber risks could ultimately trigger a systemic crisis would be by causing a widespread liquidity crisis, stemming from a bank run by customers in response to news about a serious operational incident. For this to happen, first the incident would have to be sufficiently severe and long-lasting so as to erode customer confidence in the recovery of their funds, Second, it would have to affect all, or at least much, of the banking system, which would mean impacting a large number of banks with different operational frameworks. Lastly, even in such a scenario (an attack with severe, long-lasting and widespread impact), supervisory bodies could use the specific liquidity facilities at their disposal to contain the impact.

Strengthening cyber resilience is a priority for government authorities and financial supervisors both at the European level and nationally. The disruptive capacity of cyber risks warrants the broad spectrum of general and sector-level policies deployed. Transposition of the **NIS2 Directive**¹¹ will strengthen the existing framework of best cybersecurity practices across the board. In the banking arena, the authorities have defined their supervisory expectations for banks in this regard. In addition, significant progress has been made to operationalise the European Digital Operational Resilience Act (DORA), coordinate the response to cyber incidents through the European Systemic Risk Board (ESRB) and prioritise cyber risks in the work programme of the Single Supervisory Mechanism (SSM). Using controlled trials to identify vulnerabilities and responsiveness to cyber incidents at banks

8 A DoS attack is an attack on a system, application or device that aims to put it out of service by flooding it with requests. A ransomware attack consists of malware that is used to “hijack” either a device upon start-up or the information it contains, preventing the victim from accessing the device or information unless a ransom is paid.

9 Other indicators also point to a higher incidence of cyberattacks in 2024. For example, **according to information** from the private provider Chainalysis, cryptocurrency thefts by hackers linked to the North Korean government amounted to \$1.34 billion in 2024, more than double the previous year's figure and the highest annual total so far. Moreover, on 21 February 2025 the Lazarus Group, allegedly linked to the North Korean government, carried out the largest cryptocurrency theft in history, taking Ethereum worth almost \$1.5 billion from the crypto exchange ByBit (surpassing, in one single attack, the total amount stolen in 2024).

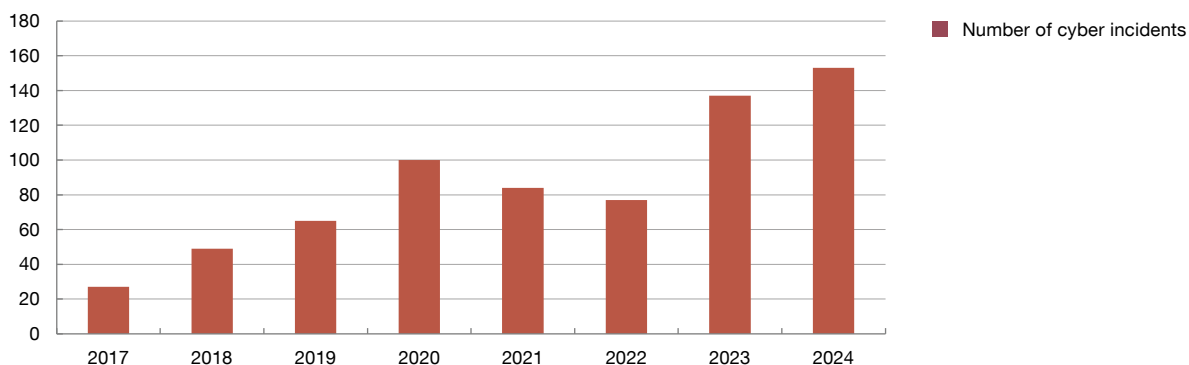
10 As shown in banks' responses to the European Banking Authority's risk assessment survey, published as part of its *Risk Assessment Report*, in both **July 2024** and **November 2024**.

11 The NIS2 Directive establishes a unified legal framework to uphold cybersecurity in 18 critical sectors across the EU.

Chart 5.7

Strengthening cyber resilience is essential amid a surge of significant cyber incidents at European banks

5.7.a Significant cyber incidents reported to the SSM by significant institutions. Number of events



SOURCE: ECB. Latest observation: 2024.

(**TIBER**, Threat Intelligence-Based Ethical Red-teaming) also adds to the tools available to strengthen cyber resilience.¹²

Despite the mitigating factors in place, applying technological innovation to develop new forms of cyberattacks generates uncertainties. For instance, AI and quantum computing can pose new threats, but they also provide new forms of defence against them. In this setting, overconfidence in the resilience to known scenarios must be avoided and robust systems (for instance, redundancy and offline repositories) must be in place to withstand extreme scenarios.

Lastly, global bloc dynamics may increase the number of geopolitically motivated cyberattacks. Such attacks have more disruptive potential than cybercrime attacks, on account of the resources available to national defence systems.

¹² The Financial Stability Board's Cyber Lexicon defines cyber resilience as the ability of an organisation to continue to carry out its mission by anticipating and adapting to cyber threats and other relevant changes in the environment and by withstanding, containing and rapidly recovering from cyber incidents.

