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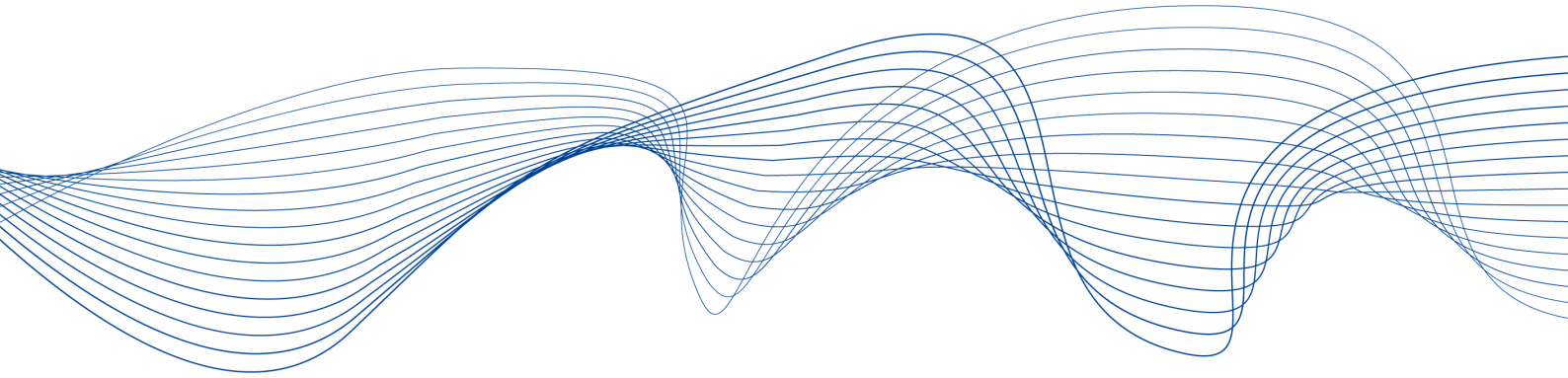

Navigating tail risks: assessing euro area economic growth and equity market vulnerabilities

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This commentary examines downside risks to euro area growth and equity markets using model-based growth-at-risk (GaR) estimates, survey-based forecast distributions and options-implied return densities. We document a pronounced thickening of the left tail of GDP growth forecasts during 2025, together with downward revisions to euro area earnings expectations, even as equity indices have remained buoyant and market volatility subdued. A GaR decomposition attributes most of the recent rise in downside risks to elevated economic policy uncertainty, while favourable financial conditions continue to cushion risks to growth. Taken together, this points to a macro-financial disconnect in which markets appear to be underpricing the impact of policy uncertainty, leaving the economy vulnerable to sharp repricing if sentiment shifts.

Keywords: downside risks, uncertainty, equity markets, macroeconomy, financial stability

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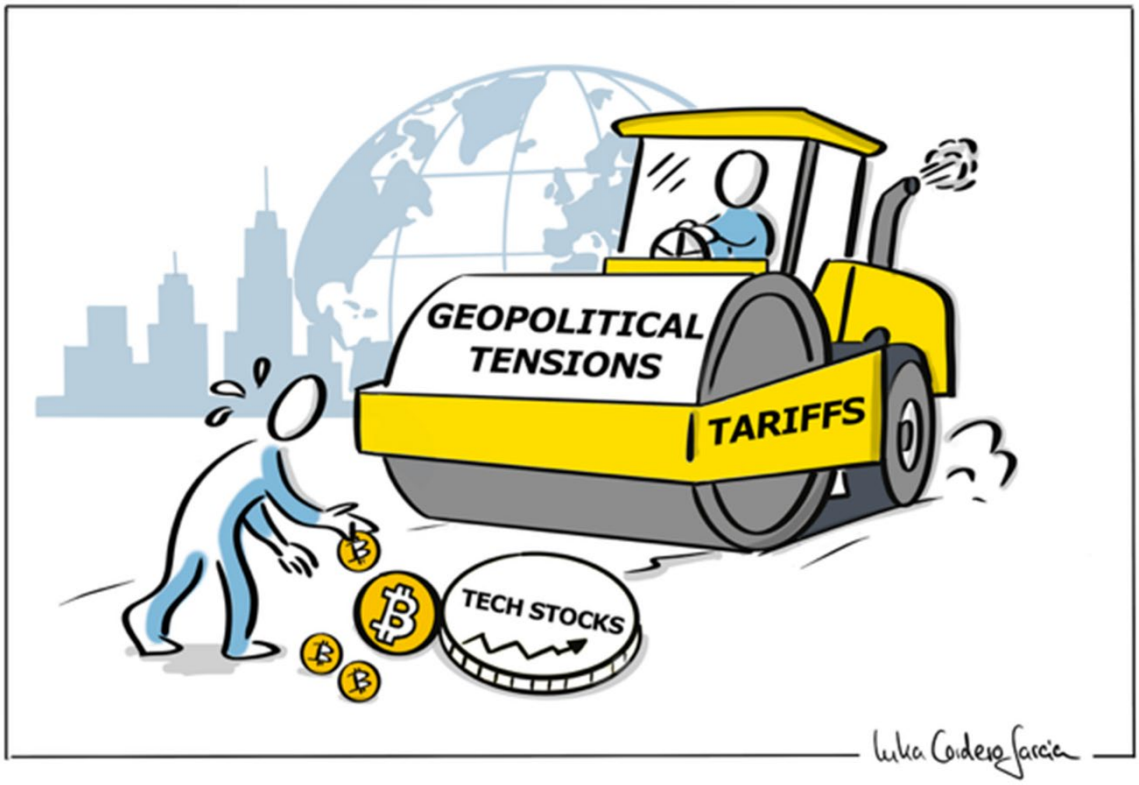
“Only when the tide goes out do you discover who’s been swimming naked.”

Warren Buffet

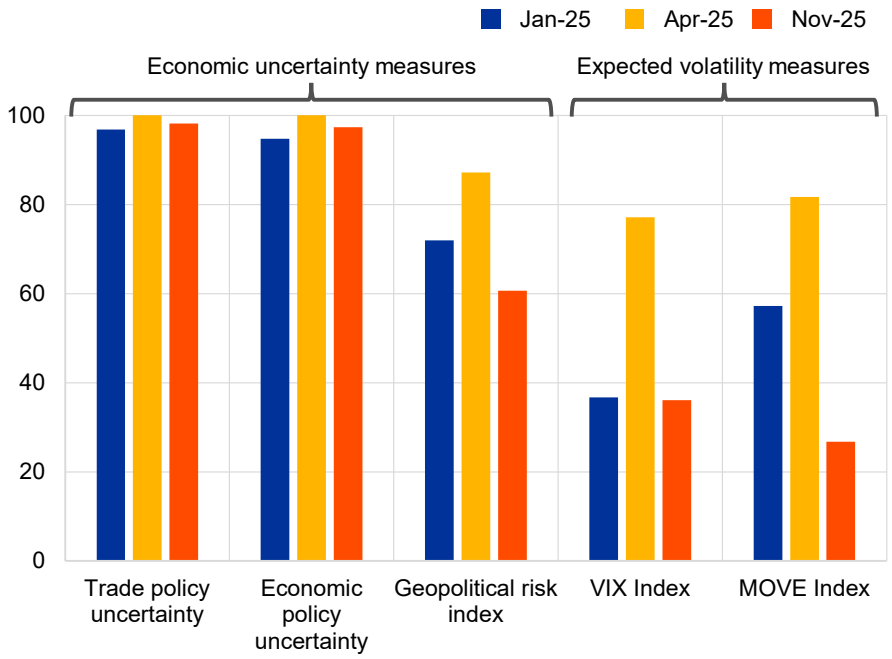


1 Introduction

Over the past year, rising geopolitical and trade-related risks coupled with elevated asset price valuations have remained central themes in the ESRB's risk assessments. In April this year, US tariff announcements triggered sharp declines in US and European equities. These declines proved short lived, with equity markets quickly rebounding to historic highs and volatility returning to low levels. At the same time, however, EU growth has remained subdued. As Chart 1 shows, this has resulted in an unusual combination: very high economic uncertainty (on the left) alongside notably low financial market volatility (on the right).

Chart 1. Subdued financial market volatility amid a challenging external environment: economic uncertainty and financial market volatility

(percentiles)



Source: Bloomberg Finance L.P.
Notes: Percentiles are derived from monthly data since January 1997 for all five indices. The economic policy uncertainty and trade policy uncertainty indices are derived from Baker, Bloom and Davis (2016), the geopolitical risk index from Caldara and Iacoviello (2022). The VIX Index is the Chicago Board Options Exchange Volatility Index; the MOVE Index is the Merrill Lynch Option Volatility Estimate.

This apparent dissonance between market developments and the growth outlook has created widespread concerns about vulnerabilities arising from financial markets. For example, at its meeting on 20 November 2025, the ESRB General Board concluded that investors' current risk appetite is leading to high valuations in a concentrated set of risky assets that are inconsistent with the current subdued growth outlook.[1] Similarly, in its October 2025 Global Financial Stability Report, the International Monetary Fund warned that asset valuations in several key markets appear stretched and markedly decoupled from fundamentals, increasing the risk of sharp corrections. Likewise, in its September 2025 Quarterly Review, the Bank for International Settlements noted that as 2025

[1] Press release following the 20 November General Board meeting (link)

progressed, tariff headlines elicited an increasingly muted market response, even as policy uncertainty persisted, while financial conditions supported buoyant risk appetite and narrow credit spreads. In September 2025, the OECD revised their global growth outlook down, explicitly citing the drag on investment and trade resulting from policy uncertainty. Outside the official sector, informed observers similarly report difficulty in assessing risks to the outlook. For example, in the September 2025 issue of the IMF's F&D Magazine, Ahir, Bloom and Furceri report that "[a]mid this year's geopolitical rifts, one signal of uncertainty is flashing red; another, green; and a third, amber. Ordinarily, they tend to track one another."

Taken at face value, this suggests that policymakers are operating in a "fog" that may be thicker than usual. For instance, how has surging economic policy uncertainty in 2025 affected the likelihood of future recessions in the euro area? While equity prices have increased throughout the year, have investors made use of option markets to hedge against potential downside risks? Are there any indications that financial markets are underpricing risk?

In this commentary, we address these questions in several steps. First, through the lens of a GaR model we demonstrate a significant increase in downside risks to the euro area economy over the course of 2025. Second, decomposing the key drivers reveals that the significant rise in economic policy uncertainty is the primary factor explaining the increase in tail risks to growth. However, the decomposition also shows that favourable market developments have partially offset some of these downside risks. Third, we derive one-year-ahead expected euro area equity return distributions from option prices. The results indicate that the tariff announcements in early April temporarily increased downside risks to equity prices. However, these concerns receded quickly, and downside risks to future euro area equity returns have, in recent quarters, returned to levels seen in late 2024. This supports the view that markets may be underpricing the impact of policy uncertainty on economic activity. The downward revisions of earnings expectations recorded throughout 2025 corroborate this conclusion.

2 Measuring risks to growth in the euro area

We can assess tail risks to future growth using a variety of techniques. In recent years, researchers have developed a number of techniques that allow us to estimate not only the most likely outcomes (the central tendency) but also those that are less likely, yet still plausible. We apply two complementary approaches to estimate a range of potential outcomes for one-year GDP growth in the euro area. First, we construct estimates of GaR for the euro area.[2] Drawing on the concept of value-at-risk (VaR) commonly used in financial risk management, GaR quantifies the level of growth at a specific horizon for a given probability. Second, we analyse predictive distributions for euro area growth derived from survey data, using the ECB Survey of Professional Forecasters (SPF), with particular attention to the lower tail. Throughout the study, we focus on one-year-ahead real GDP growth at the 10th percentile for all quarters of 2025 where data are available. In the charts that follow we also include

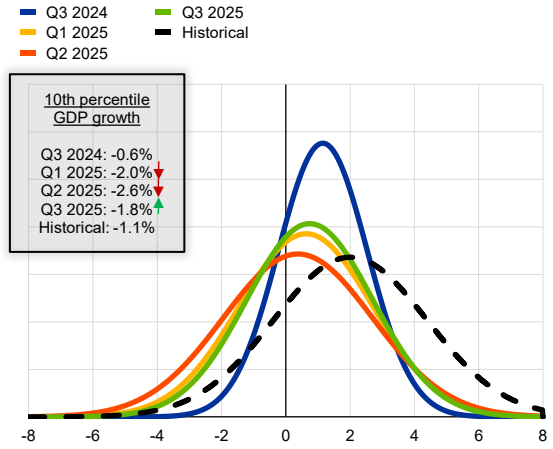
[2] The GaR employed is part of the ESRB's toolkit for macroprudential assessment, developed by the ESRB's Expert Group on Macroprudential Stance (2021) and the ESRB's Contact Group on Macroprudential Stance (2024). The model used in this commentary extends the specification by including Economic Policy Uncertainty. This is in alignment with the approach followed by the ECB/ESRB workstream on financial stability risks from geoeconomic fragmentation (report forthcoming in 2026).

the third quarter of 2024 (i.e. the quarter before the announcement of the results of the US election[3]) and annual historical GDP growth in core euro area countries from 1970 to 2025 (the dotted lines).[4]

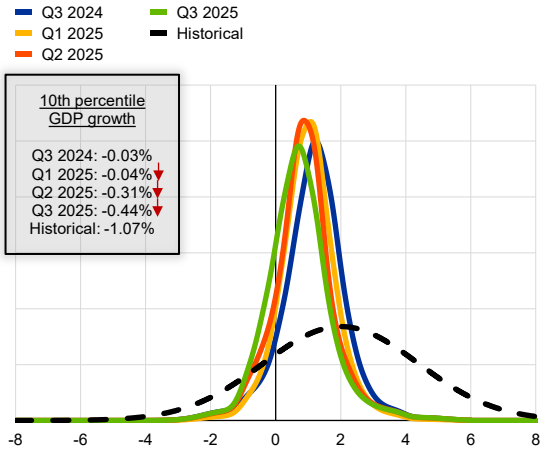
Chart 2. Significant tail risks to euro area economic growth prospects

(x-axis: one-year-ahead GDP growth)

a) One-year ahead real GDP distributions implied by the GaR model



b) One-year ahead real GDP distributions implied by the SPF



Sources: ECB (SPF, Statistical Data Warehouse), Eurostat, policyuncertainty.com and ESRB calculations.
Note: The red and green arrows in the grey boxes indicate whether the 10th percentile GDP growth rate has decreased (red) or increased (green), for each specific forecast method.

For the first half of 2025, our GaR model points to a progressive thickening of the left tail of euro area growth, whereas downside risks to future growth appear more moderate if based on SPF survey data. In the third quarter of 2024, the 10th percentile of one-year-ahead growth stood at -0.6%, indicating limited downside risk to future GDP growth in the euro area (Chart 2a). This estimate is higher than that observed at the 10th percentile of actual real GDP outcomes since 1970 (-1.1%).[5] For 2025, however, the model shows a significant increase in the probability of a one-year contraction across all quarters in 2025, compared with the third quarter of 2024. The 10th percentile values have hovered in the range of -1.7% to -2.6%. Using the SPF approach, we observe a less pronounced increase in the downside risk to future GDP growth, with the 10th percentile falling from -0.04% in 2024 to -0.4% in 2025. This discrepancy is consistent with several studies which found that the ECB's SPF tends to underestimate the tails of the distribution and extreme outcomes.[6]

[3] While Donald Trump and the Republican Party made had made various references to the introduction of tariffs and other significant policy changes earlier in 2024, we argue that these became more credible later in the year. This was reflected in the sharp increase in economic policy uncertainty after the election outcome was announced in November 2024.

[4] We describe the technical details in an online annex.

[5] To extend the series prior to the inception of the euro area in 1999, we construct a historical aggregate by applying the average real-GDP growth of the eleven original euro-area member countries to the official post-1999 euro-area index.

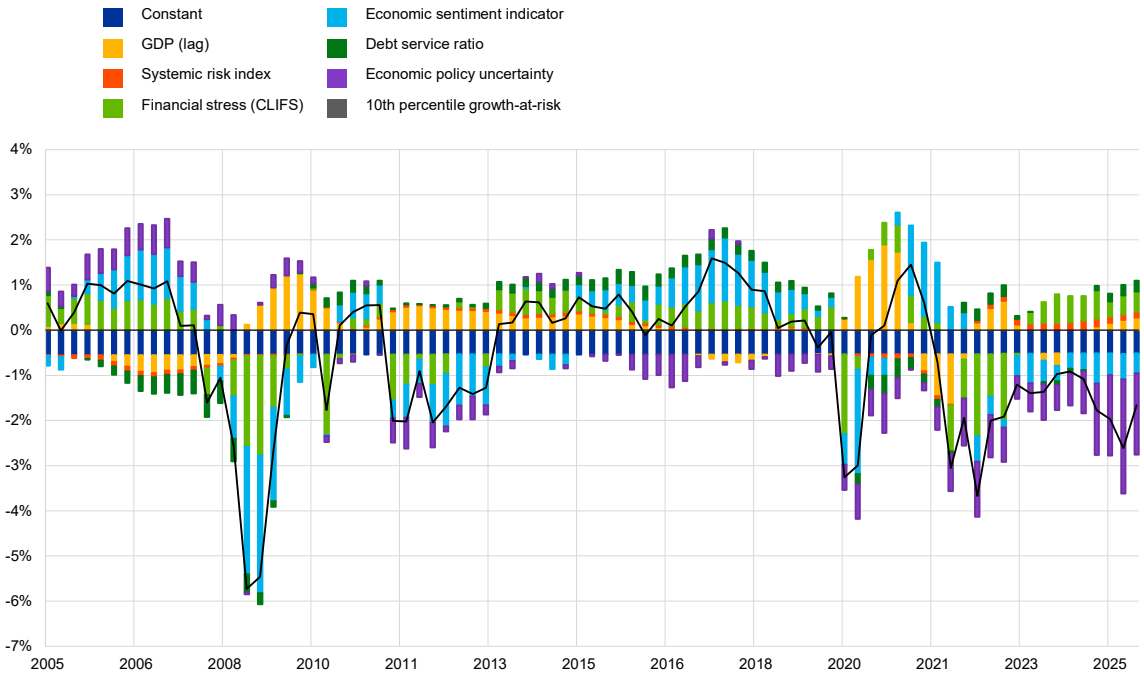
[6] On design and interpretation issues in the SPF, see Bowles et al. (2007) and Rich et al. (2012), who warn that disagreements among point forecasts are a poor proxy for uncertainty and that individual distributions may underweight extremes. Engelberg et al. (2006) report heterogeneity between point and probabilistic responses while Clements (2011) shows that rounding can

3 Understanding the drivers of tail risks to macroeconomic growth

A breakdown of the factors driving movements in our estimates of GaR reveals that economic policy uncertainty has been the largest contributor to downside risks to GDP in the euro area in recent quarters. Chart 3 illustrates the breakdown of the 10th percentile of real GDP growth in the euro area into its constituent components. These results lead us to two conclusions. First, the most significant negative contributor over the past year has been the economic policy uncertainty index (purple). Second, financial conditions, represented by the Country-Level Index of Financial Stress (CLIFS), which incorporates equity prices, has had a positive impact (light green).[7]

Chart 3. Decomposition of the GaR model at the 10th percentile

(One-year-ahead real GDP growth, annual growth rates)



Sources: ESRB Secretariat, also in conjunction with the ECB/ESRB workstream on financial stability risks from geoeconomic fragmentation.
Notes: The plot shows the quarterly GaR, broken down into the contributions of the explanatory variables included. It is measured by the 10th percentile as estimated under the ESRB GaR specification.

Long-term time series estimations of one-year-ahead GaR indicate that the downside risks to euro area growth observed in 2025 are significant. As we can see in Chart 3, the current level of downside risk to growth are comparable to those during four previous episodes: the global financial

compress tails and generate inconsistencies. In addition, Kenny et al. (2014) show that SPF respondents understate uncertainty, higher moment features such as skewness rarely improve density performance and a large majority of respondents rely on judgement when reporting densities. For a recent institutional review, see Allayioti et al. (2024).

[7] CLIFS is a composite indicator of financial stress that fuses information from bond markets, equity markets, bank funding costs and foreign-exchange conditions into a single measure. This is designed to capture episodes when financing conditions in Europe become unusually strained. See Duprey et al. (2017).

crisis (2008-09), the EU sovereign debt crisis (2011-12), the COVID-19 pandemic (2020) and the period of high inflation (2022-23). The current episode is, however, quite different. First, there is a clear contrast in the role of financial stress (CLIFS). During earlier episodes, financial stress (light green) was the major negative contributor to GaR.[8] Second, in the past we have generally seen economic sentiment move in tandem with financial stress. However, since 2023 the contributions of these two indicators to GaR have diverged: economic sentiment is currently reinforcing policy uncertainty, further increasing downside growth risks, while the materialisation – or lack thereof – of financial stress is contributing to a reduction in GaR.

4. A closer look at equity market developments

The rising equity prices seen in the euro area so far this year are not fully consistent with the downward revisions in earnings expectations observed since April. Financial conditions are particularly benign in equity markets. At the time of writing (end-November), US and European equities are both up around 15% so far this year (the blue and yellow lines in Chart 4a). There have, however, been bumps along the way. In early April, global stock markets fell sharply following the US President's announcement of sweeping new tariff policies affecting a large number of countries. In the months that followed, however, equities rebounded and reached record highs. Given that stock prices theoretically reflect expected future earnings, analysing trends in earnings forecasts provides a useful source of information. Chart 4a shows average earnings expectations for EURO STOXX 50 firms for 2025 (red) and 2026 (green). Immediately after the US tariff announcements were made on 2 April 2025, analysts revised these expectations down significantly (in the range of 6-8%). After that, the forecasts continued to deteriorate until 27 July 2025, when the United States and the EU reached a trade agreement.

Despite the challenging macroeconomic environment, investors perceive the likelihood of future significant equity price corrections to be low. Option prices tell us how much investors are willing to pay to insure against different outcomes. Chart 4b displays the options-implied distribution of one-year-ahead expected EURO STOXX 50 stock price returns as of the third quarter of 2024, in early April 2025 and in early November 2025. The left tail of the distribution increased following the April US tariff turmoil, suggesting there is significant potential for further falls in equity prices. However, looking at the distribution in November 2025 (the red line in Chart 4b), we see that market estimates of the downside risk to equities are back to the pre-US election levels seen in September 2024 (the blue line). They are also now below their historical average (the black dashed line).

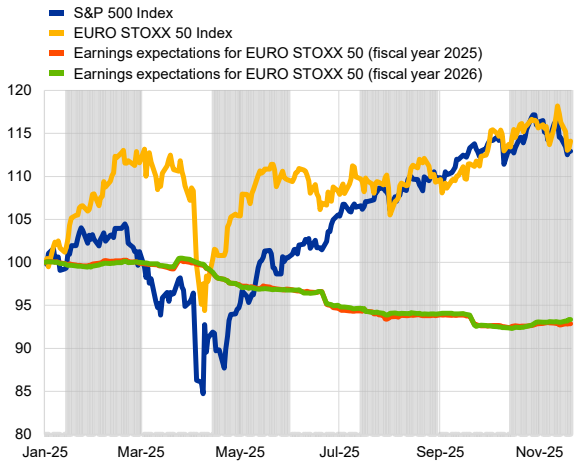
This leads us to two important conclusions. First, the optimism in equity markets appears inconsistent with the subdued earnings expectations and the high prevailing downside risk to economic growth presented above. Second, information from option markets suggest that investors seem to have an overly benign view of the risk of future sharp equity price corrections.

[8] Some of these periods did entail significant policy uncertainty (particularly around the Russian invasion of Ukraine in 2022).

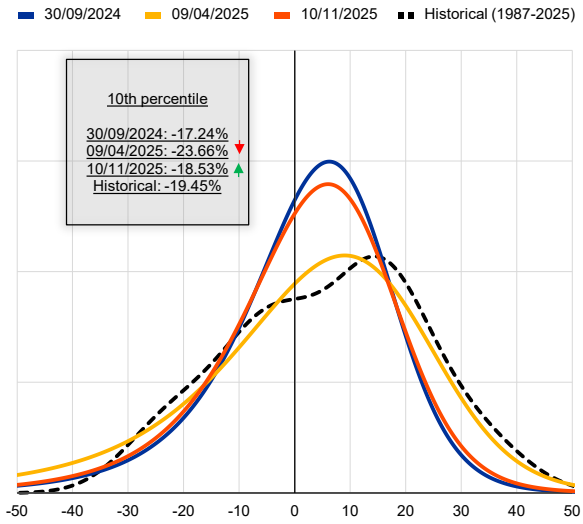
Chart 4. Strong recovery for equities after the April turmoil

(Chart 4a: y-axis: index, 100 = 1 January 2025; Chart 4b: x-axis: one-year-ahead index percentage return)

a) EURO STOXX 50 and S&P 500 index prices, EURO STOXX 50 earnings expectations for 2025 and 2026



b) One-year-ahead option-implied EURO STOXX 50 return distributions as of September 2024, April 2025 and November 2025 and long-run historical distribution



Sources: Bloomberg Finance L.P., ESRB calculations.
Notes: In Chart 4a, the shaded areas represent the earnings seasons. The historical distribution in Chart 4b is based on data from 1987-2025.

5. Potential growth implications of an increase in financial stress

How much would a sharp episode of financial stress, including lower equity prices and higher bond spreads, raise downside risks to economic growth? The GaR model allows us to address this question. Using a quantile coefficient-based scenario analysis, we estimate how movements in CLIFS around historical events affect GDP-at-risk (10th percentile), isolating the impact of financial stress under crisis-like conditions. If in Q3 2025 CLIFS were to have reached levels equivalent to those seen in March 2020 and 2009 (roughly six times larger) GaR would have fallen by approximately 2.7 and 3.3 percentage points respectively. In the third quarter of 2025, EPU contributed about -1.8 percentage points (Chart 3) to the one-year-ahead 10th percentile for growth. A deterioration in CLIFS to these crisis levels, combined with a further spike in EPU to be at similar levels to those seen in Q2 2025, could reduce the 10th percentile of GDP growth by a further 3.3-3.8 percentage points (from roughly -1.7% in Chart 3 to -5 to -5.5%). To offset a rise in financial stress to such levels, EPU would need to moderate by 1.8 standard deviations, that is decrease by about 40% to levels seen before the second quarter of 2024, all else being equal. This computation highlights the sizeable adverse impact of financial stress and policy uncertainty shocks. The model also indicates that GDP-at-risk is slightly more sensitive to financial stress than to policy uncertainty over the full sample, underscoring the vulnerability to extreme negative growth outcomes should severe financial stress materialise in the current environment of elevated uncertainty.

Conclusion

In this commentary we show that even as financial markets have continued to signal benign conditions, downside risks to euro area growth have risen materially over the course of 2025. GaR estimates show a thickening of the left tail of expected GDP growth one year ahead, with current levels of tail risk comparable to past episodes of severe financial stress. A breakdown of the key drivers indicates that elevated economic policy uncertainty is the main factor driving downside risk, while still accommodative financial conditions are reducing tail risks to growth. Overall, the optimism seen in financial markets (particularly in equity markets) appears inconsistent with subdued earnings expectations and the high prevailing levels of downside risk to economic growth. Furthermore, information from option markets suggest that investors are not hedging against a higher risk of sharp equity price corrections. Taken together, this evidence points to a macro-financial disconnect in which markets are underpricing the growth implications of sustained policy uncertainty.

From a macroprudential perspective, such a configuration leaves the euro area vulnerable to an abrupt shift in risk appetite. A scenario analysis using the GaR framework suggests that a re-emergence of financial stress to levels observed during the global financial crisis or the Covid-19 pandemic could quickly turn financial markets from cushioning to amplifying the downside risks to GDP growth. These findings highlight the value of distribution-based tools – combining model-based GaR estimates, survey information and market-implied densities – in providing an integrated view of tail risks to financial stability.

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