

OCTOBER 23, 2025
London Conference

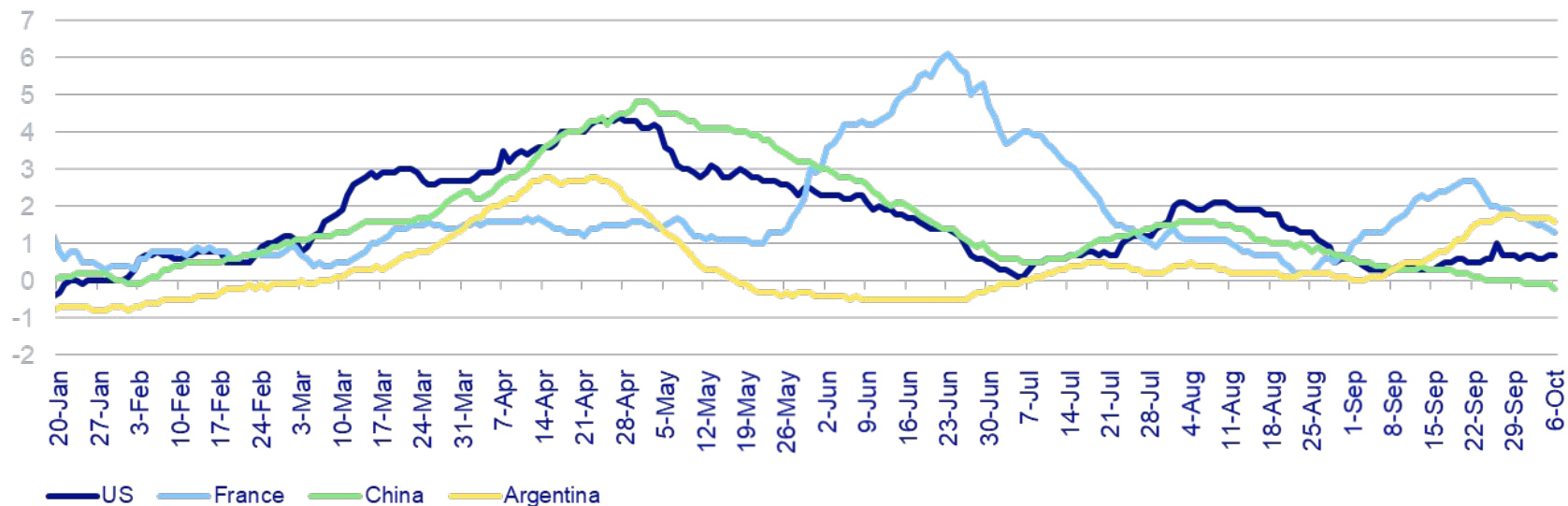
Jorge Sicilia

Global Economic Outlook & Selected issues

Global economy: recent developments

Uncertainty remains key, but apparently less than before

ECONOMIC POLICY UNCERTAINTY INDEX (2025): UNITED STATES, FRANCE, CHINA AND ARGENTINA (*)
(INDEX: HISTORICAL AVERAGE = 0; 28-DAY MOVING AVERAGE)

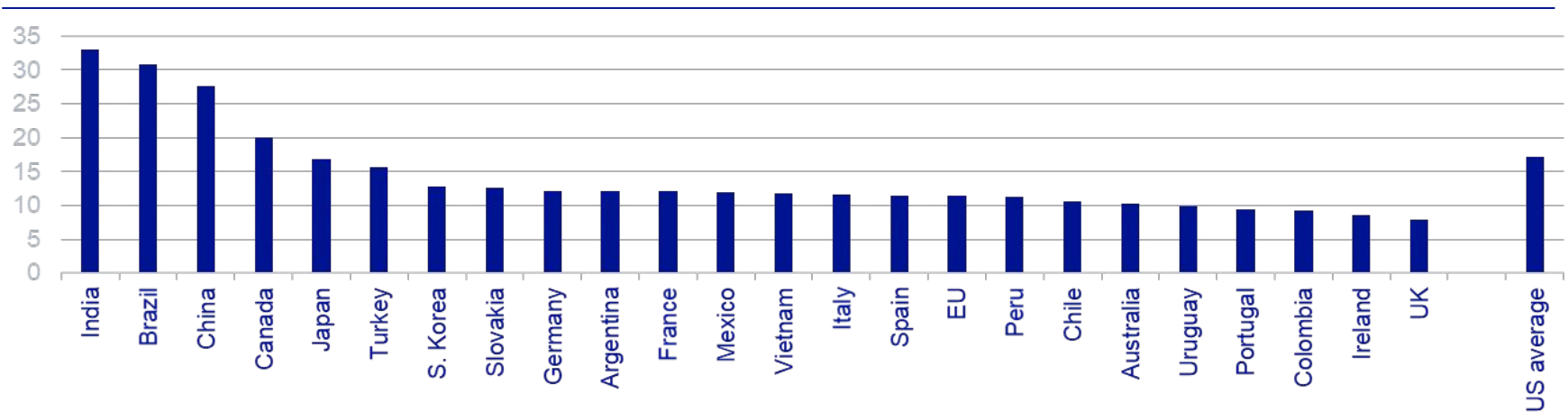


(*) Last available data: October 6, 2025.
Source: BBVA Research.

Many sources of uncertainty, including geopolitical and political tensions, wars, tariffs, immigration curbs, attacks on the Fed and other institutions, high debt levels (stress in France, US fiscal deficits and US government shutdown), rare earth controls.

Protectionism: US tariffs have reached high levels, especially for some targeted countries

US TARIFFS: ESTIMATED INCREASE SINCE THE BEGINNING OF 2025 UNTIL OCTOBER 6 (*)
(PP)

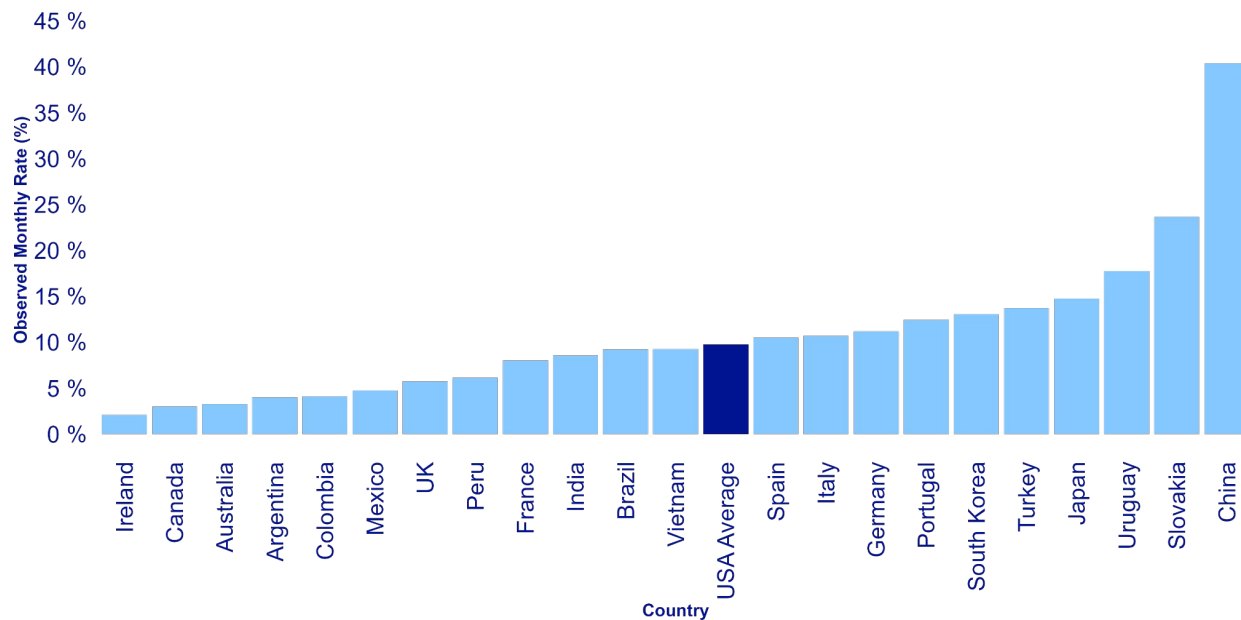


(*) BBVA Research calculation Following recent trade deals and unilateral US announcements. Based on general tariffs set for each country (reciprocal and/or fentanyl), specific tariffs on some sectors (steel, aluminum, automobiles, autoparts, pharma...) and exempted goods (selected electronics, oil...). Sectoral weights are calculated according to 2024 trade flows.

Despite several US trade deals, uncertainty on tariffs remain given still unsettled negotiations, legal challenges and the view that they are now part of the US policy toolkit

Preliminary evidence suggests that effective tariffs are mostly below face-value tariffs

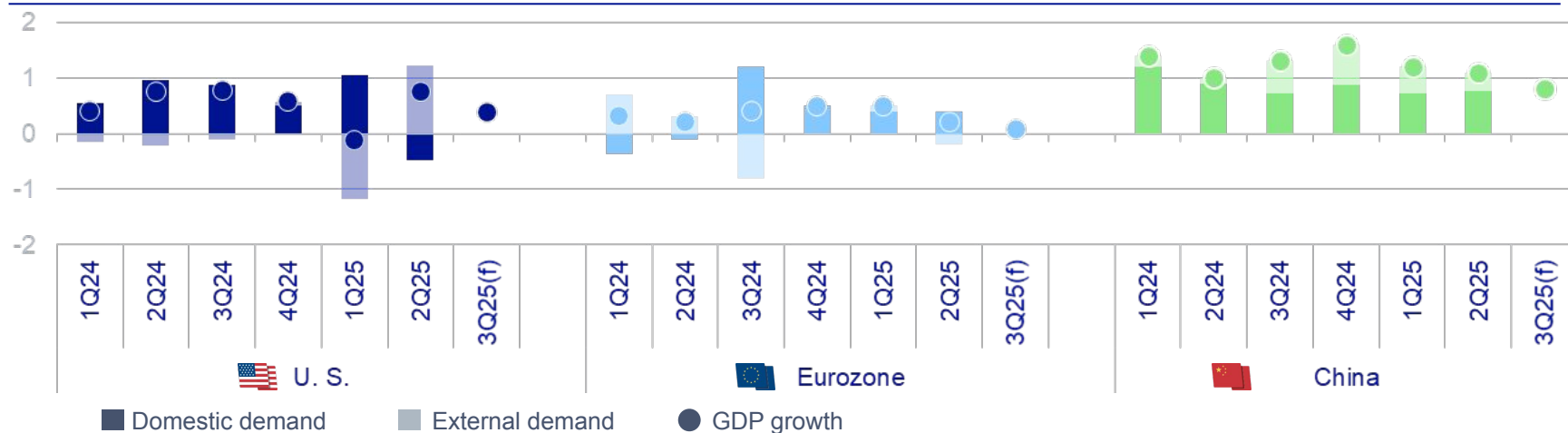
EFFECTIVE TARIFFS: CURRENT LEVEL (JULY 2025), ESTIMATIONS USING US DUTY INFORMATION (%)



GDP growth has remained broadly resilient in the first half of the year, with mixed signals

GDP: CONTRIBUTION OF DOMESTIC AND EXTERNAL DEMANDS TO GDP GROWTH (*)

(GDP GROWTH: Q/Q%; CONTRIBUTIONS TO GDP GROWTH: PERCENTAGE POINTS)



(*) 3Q25 figures: BBVA Research forecasts.

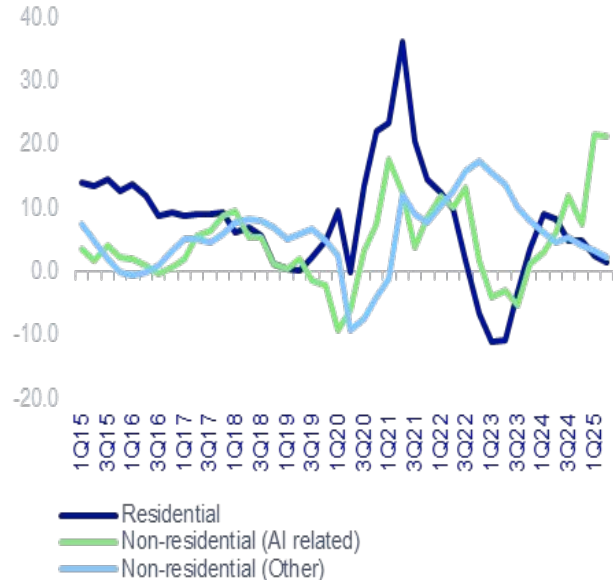
Source: BBVA Research based on data from Haver and China's NBS.

GDP data surprised upwards in 1H25; consumption has slowed, but remained resilient; investment has been supported by AI spending especially in the US; exports have stayed resilient

US: AI-driven investment is fuelling short-term US GDP growth. Is it sustainable? Will it increase productivity?

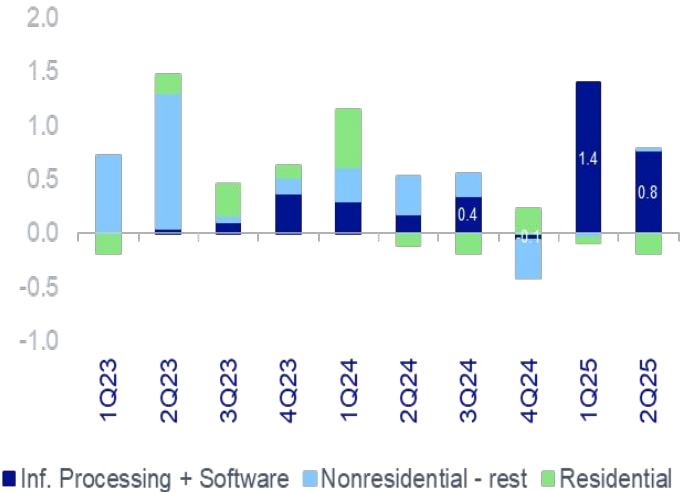
GROSS PRIVATE DOMESTIC INVESTMENT

(Y/Y%, REAL, SA, MOVING AVG. 6 MONTHS)



INVESTMENT EXCL. INVENTORIES

(CONTRIBUTION TO GDP GROWTH, PP)



Global trade surged ahead of tariffs, but has slowed lately

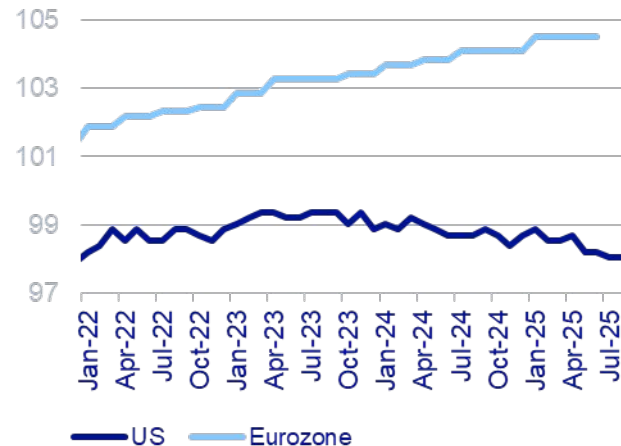
US labor markets have eased amid lower immigration flows

GLOBAL EXPORTS OF GOODS: VOLUME
(4Q19=100; THREE-MONTH MOVING AVERAGE)



Source: BBVA Research based on data from Haver.

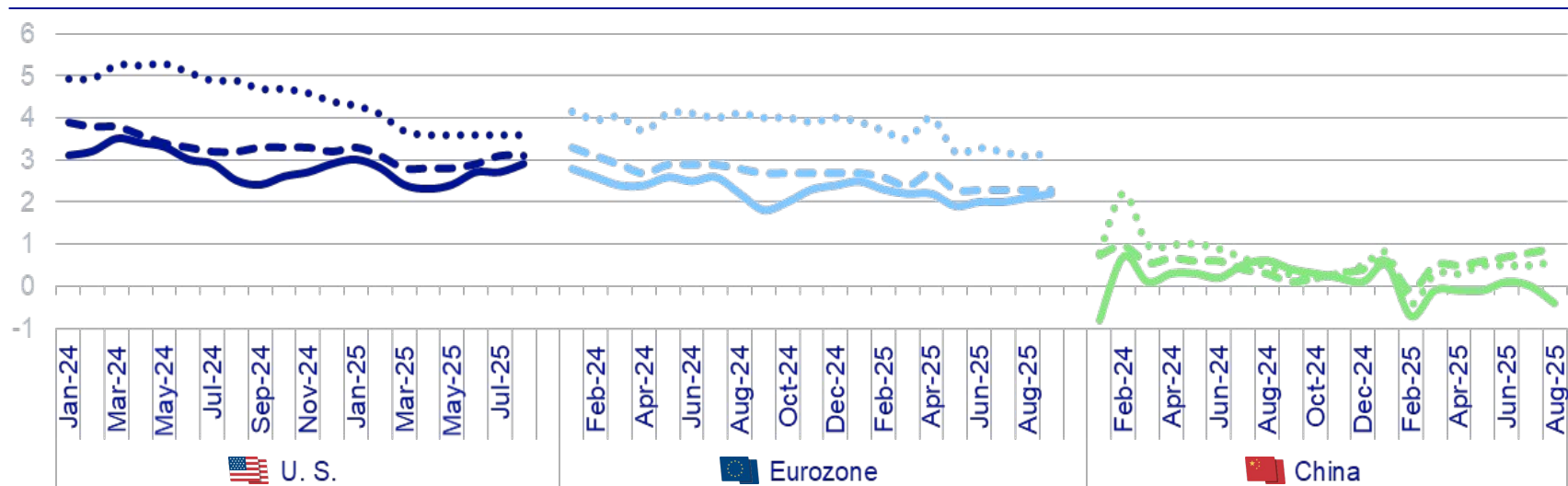
EMPLOYMENT-POPULATION RATIO
(INDEX: 2019 AVERAGE = 100)



Source: BBVA Research based on data from Fred and Eurostat.

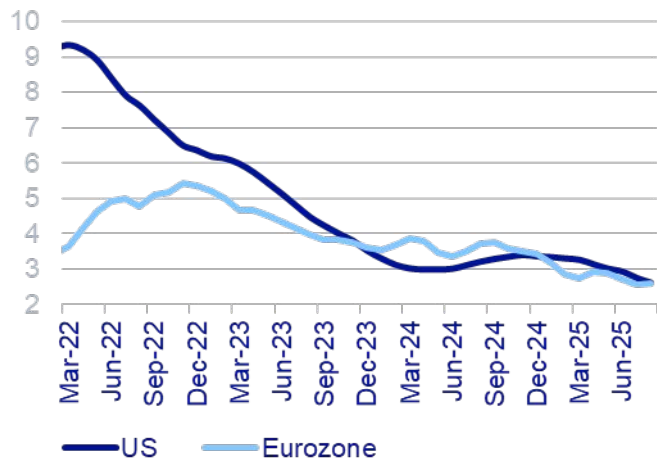
Inflation has risen (but less than expected) in the US; it remains close to 2% in the Eurozone and very low in China

CPI INFLATION: HEADLINE, CORE AND SERVICE (Y/Y %)



Wage moderation and lower energy prices have taken some pressure off inflation

NOMINAL WAGES: INDEED WAGE TRACKER
(Y/Y %, 3-MONTH MOVING AVERAGE)



Source: BBVA Research based on data from Indeed.

BRENT PRICES (*)
(USD PER BRENT BARREL)

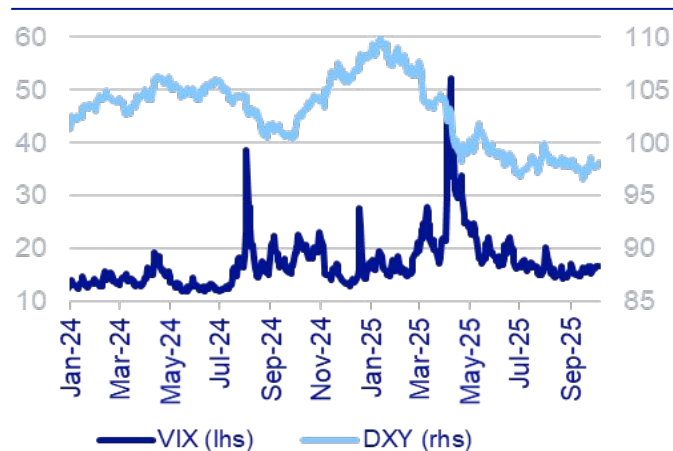


(*) Last available data: October 6, 2025.
Source: BBVA Research based on data from Haver.

Wage growth has slowed while oil prices have remained low despite ongoing geopolitical tensions; their effects are helping to offset the initial impact of tariffs

Financial markets continue to exhibit a positive tone

EQUITY VOLATILITY (VIX); US DOLLAR (DXY) (INDEXES)



(*) A lower DXY represents a weaker US dollar. Last available data: October 6, 2025.
Source: BBVA Research based on data from Haver.

US SOVEREIGN YIELDS (%)

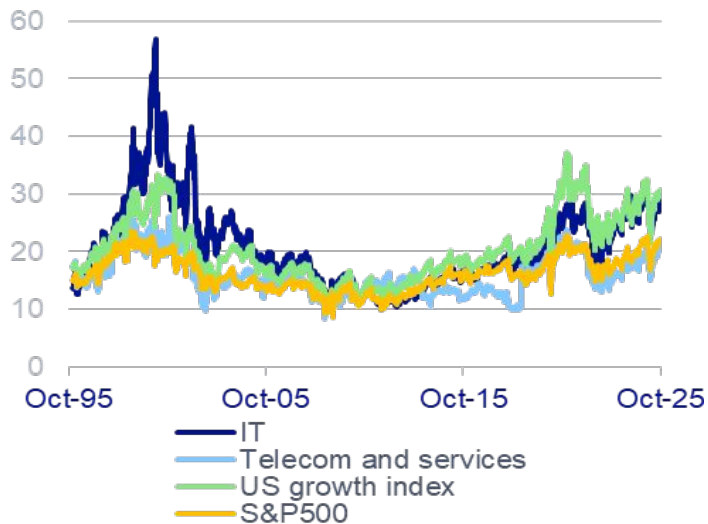


(*) Last available data: October 6, 2025.
Source: BBVA Research based on data from Haver.

Volatility has remained low and the USD has further weakened; short-term US rates have fallen due to lower Fed rates, but longer yields have declined less as term premia remains under pressure

AI boosts equities; trade tensions weigh on corporates

VALUATION IN SELECTED S&P SECTOR
(PRICE TO 12M FORWARD EARNING RATIO)



Source: BBVA Research based on Haver.

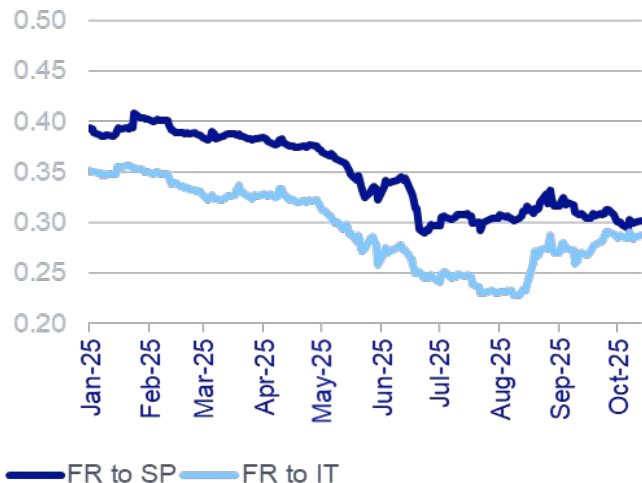
CORPORATE AND EM SOVEREIGN SPREAD (BPS)



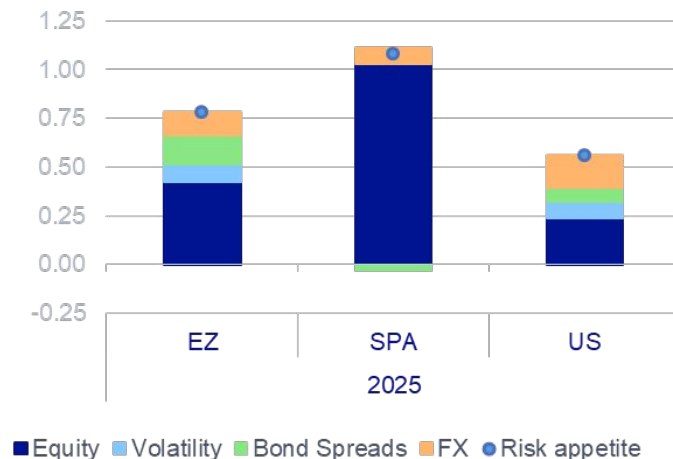
Source: BBVA Research and Haver.

French turmoil: no contagion to Spain, limited to Italy

VOLATILITY SPILLOVERS (10Y PERIPHERAL SPREADS) (%)



CHANGES IN RISK APPETITE IN 2025 (STANDARD DEVIATION)



*A We estimate a VAR(2) including 2 variables (long term rates for US and GER) using daily data from January 2002 up to now. Spillover indices use generalized spillover measures proposed in Diebold and Yilmaz(2012). Generalized spillovers are derived using generalized impulse response functions (GIRFs). The model is estimated on a rolling basis using a 250-day window.

Source: BBVA Research based on Bloomberg.

Global outlook

Unsettling US policies will eventually hit global growth, but impact could be less than expected in the short term

Global resilience, so far, on compensating factors (fiscal stimulus, AI, loose financial conditions), **agent's decisions** (preemptive exports), but also **lower effective tariffs**



More disruptive policies: tariffs seem persistent with no steady state, attacks on institutions and immigration curbs harsher than anticipated, fiscal deficits will stay high, geopolitical conflicts remain unresolved...



Global growth will likely slow; policy rates are expected to converge to 3% in the US and remain at 2% in Europe; inflation to remain around 3% in the US, close to 2% in Europe and low in China

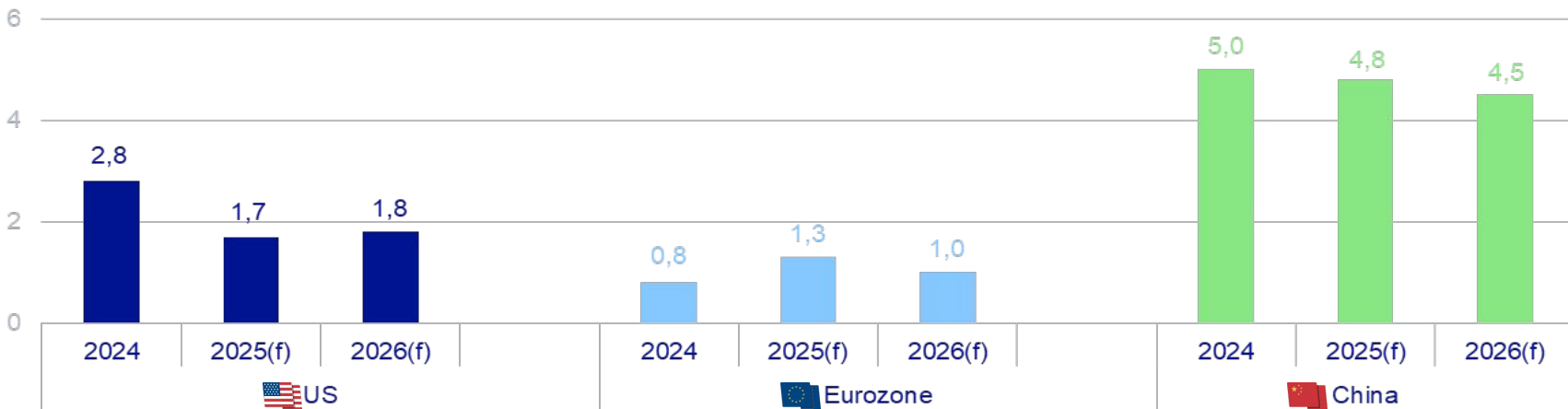


Risks are rising; they include more negative supply shocks on tariff uncertainty and discretion, immigration policies,... and stress due to Fed intervention; but also positive risks associated to a strong boom in the AI wave



Global growth is forecast to moderate gradually moving forward, from 3.3% in 2024 to 3.0% in 2025 and 3.1% in 2026

GDP GROWTH (%)



(*) Global GDP grew by 3.3% in 2024 and is forecast to expand by 3.0% in 2025 and 3.1% in 2026, unchanged in comparison to previous forecasts.

(f): forecast.

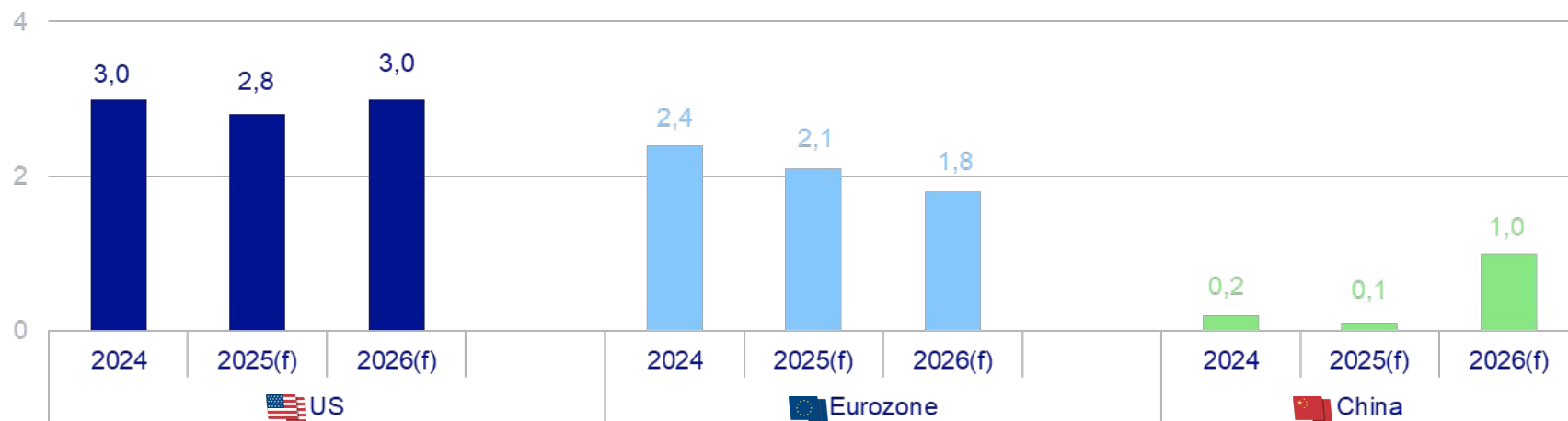
Source: BBVA Research

In the US, policies lead to weaker growth despite supportive 2Q25 GDP data and positive AI effects; in Europe, recent data support higher growth in 2025, but 2026 outlook stays unchanged as defense stimulus will likely offset tariff impact; in China, slowdown prospects remain in place

Inflation: tariff effects are still expected; mostly unchanged prospects in Europe; lingering downwards risks in China

HEADLINE CPI INFLATION

(Y/Y %)



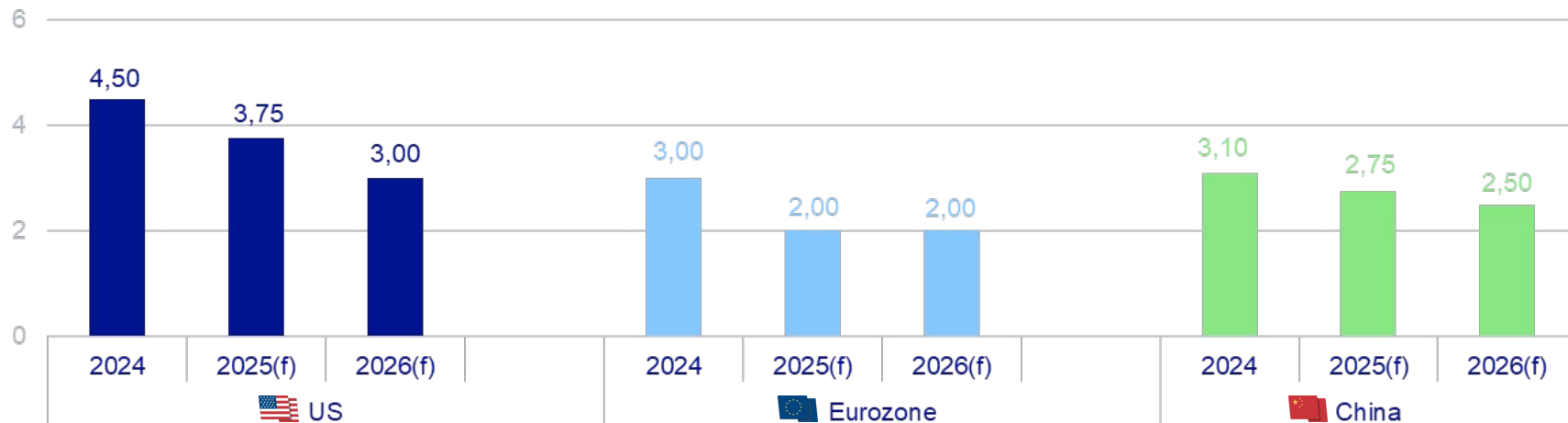
(f): forecast.
Source: BBVA Research.

US inflation has surprised downward, but tariffs and immigration curbs will keep it around 3%; in the Eurozone inflation will be slightly higher than forecast but very close to 2%; In China, moving out of the low-inflation regime is proving challenging

A more dovish Fed will keep easing monetary conditions, likely lowering rates to 3% in 2026; ECB to hold at 2%

POLICY INTEREST RATES^(*)

(%)



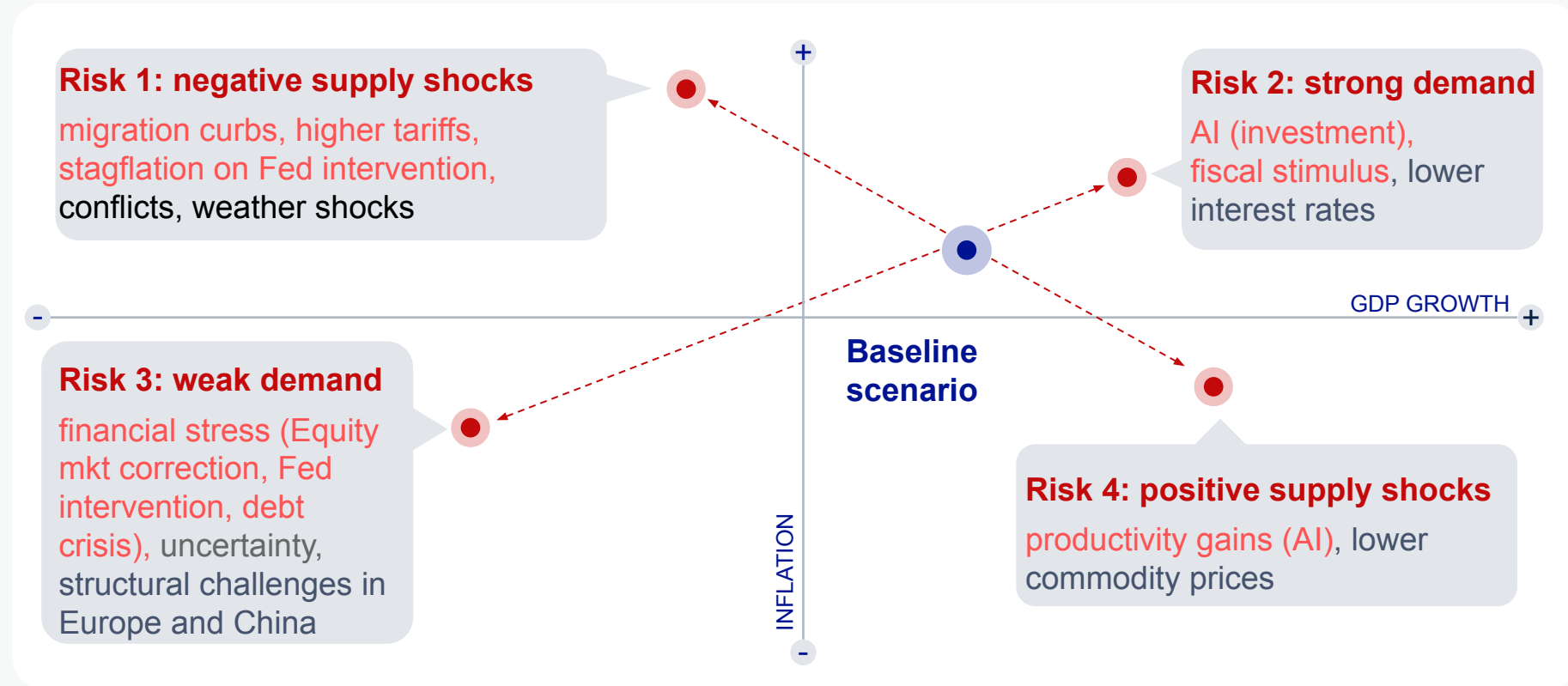
(f): forecast.

(*) In the case of the Eurozone, interest rates of the deposit facility.

Source: BBVA Research.

Fed's easing path towards 3% in 2026 will depend on upcoming inflation and labor market dynamic; the risk is that the Fed cannot go as low as 3% in 26; ECB expected to hold rates at 2%, with (diminishing) risk of one more cut

Risks are mounting amid heightened uncertainty, recurring shocks, weaker global cooperation and potential non-linearities



Selected issues:

1. Geopolitics

Geopolitics matters — what's at stake is how the new world order will be reshaped

IN THIS NEW WORLD	US	EUROPE	CHINA
Main leverage	(i) Global liquidity, safe asset status and deep markets; (ii) consumer of last resort; (iii) military power.	Strong institutions and rule of law basis.	Global producer and focus on new technologies, rare earths.
Need to rebalance	High fiscal deficit/public debt and excessive CA deficit.	Current account surplus (ongoing, following mostly GER fiscal expansion).	Current account surplus (far from adjusting due to weak demand).

Global imbalances and the new role of the IMF (External Sector Report)

The growing concerns about geopolitics...

**Polarization,
political
fragmentation
and populism**

**Protectionism
and
deglobalization**

**Conflicts, wars
and global
rivalries**

**From a
rules-based
world to
transactional
politics**

**From a
Western
alliance to
uncertain
alliances**

... with consequences for many different issues beyond the economic outlook, including:

Regulation and
“supervisory”
risk scenarios

Financial markets:
interest rates, risk
premia, currencies

Banking
sector

Policies:
fiscal,
monetary...

Global
financial
architecture

1. Geopolitical risks: **high frequency indicators and its impact** **on CDS**

Focus of the Project: Do Geopolitics & Geoeconomic Matter for High Frequency Sovereign Risk?

- **Introducing a “News” Based High Frequency Dataset for 42 countries.**
- **A Machine Learning to tackle Geoeconomic “Non-Linear” Events.**
- **Key Research Questions & Answers**
 - **Model Performance:** ML non-linear models outperform linear models explaining HF risk?
 - **Predictive Power of News:** News-based indicators (e.g., Geopolitical Risk, Policy & Trade Uncertainty, Sentiment) improve prediction of HF Risk.
 - **Drivers of Risk:** Global Finance Cycle (Rates & VIX) are the key determinants of Risk, followed by Macro. Geo-economic factors less relevant but still significant.
 - **Heterogeneity:** Some Heterogeneity by Asset Class and EM Regions.
 - **Global Financial Non-Linear Effects:** Global Financial “Position” Key as Amplifier/Stabilizer.
- **Geopolitics and Geo-economic shocks “Sovereign” cases**
 - Systemic Geopolitical Shock → Russia-Ukraine (2022).
 - Episodic Geopolitical Shock → Israel-Hamas (2023).

High Frequency Sovereign Risk Model to answer Questions

42

Countries (Advanced & 4 Emerging Markets Regions)
Daily Data 2017 January – 2025 July
Market & Sentiment Variables.

Advantage!!!
High Frequency DAILY MODEL
using Sentiment News
by BBVA Research. [Link](#)

CD Sovereign Swap (Standard Deviation)

Global Financial Variables

Global Monetary Policy (FED)
Markets Data (FED 2YrB)

Global Volatility (VIX)
Markets Data (VIX)

Market Based

Local Economic Sentiment Variables

Interest Rate Sentiment: Local
Sentiment (IRS)

Economic Sentiment: Local
Sentiment (ECO)

Local Economic Uncertainty Variables

Economic Policy Uncertainty
Local media coverage (EPU)

Trade Policy Uncertainty
Local media coverage (TPU)

Geopolitical Risk & Political Tensions

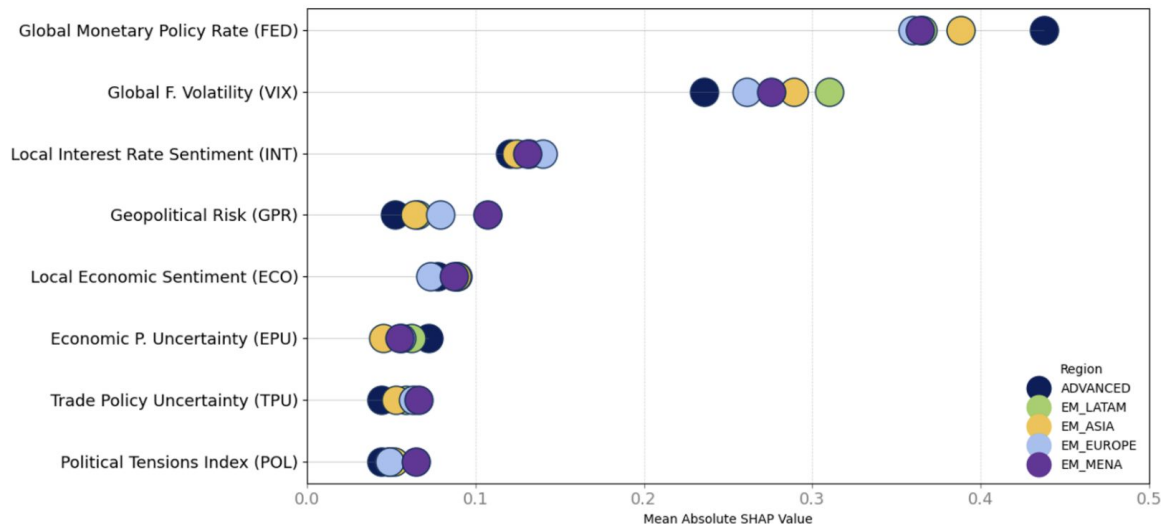
Geopolitics – Local Media
Sentiment (GEO)

Politics – Local Media
Sentiment (POL)

News Based Variables (by BBVA Research)

And with some Heterogeneity by Asset Class (Developed & Emerging) and Regions

Variable Importance in Sovereign Risk Models By Asset class & EM Regions
(Shapley Values, 2018–2025)



Global Push Factors are the Key Drivers but there's heterogeneity. **Developed Countries more sensitive to Global Rates...**

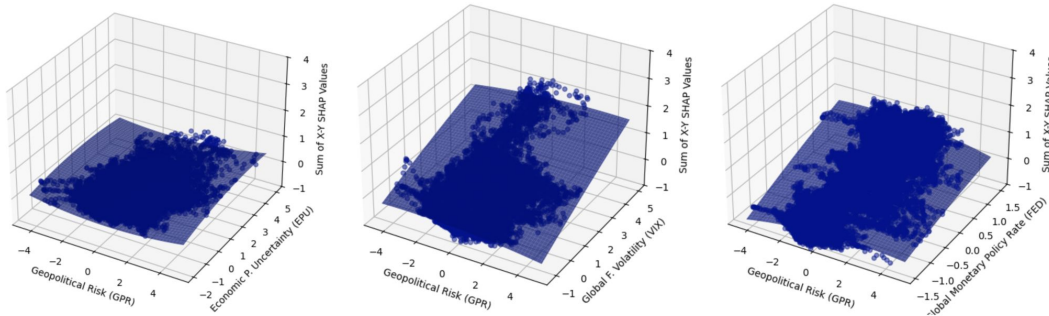
Risk Asset Class (EM) more sensitive to “Volatility”. The higher EM is integrated in global indexes (**Latam and Asia**) the more sensible it is.

Some EM Regions show **higher sensitivity** to Geopolitics, Trade or Politics (**Middle East**).

Notes: The figure reports mean absolute Shapley values, which quantify the contribution of each predictor to sovereign CDS spreads (2018–2025). Global monetary policy (2-year UST) and global financial volatility (VIX) dominate, followed by domestic interest rate and economic sentiment. Geopolitical risk, economic and trade policy uncertainty, and political tensions also contribute, though to a lesser extent.

Complexity: The Global Financial Cycle is not only the Most relevant but determines the effect of other

Partial Dependence: Geopolitical Risk + Uncertainty + VIX + Global Rates

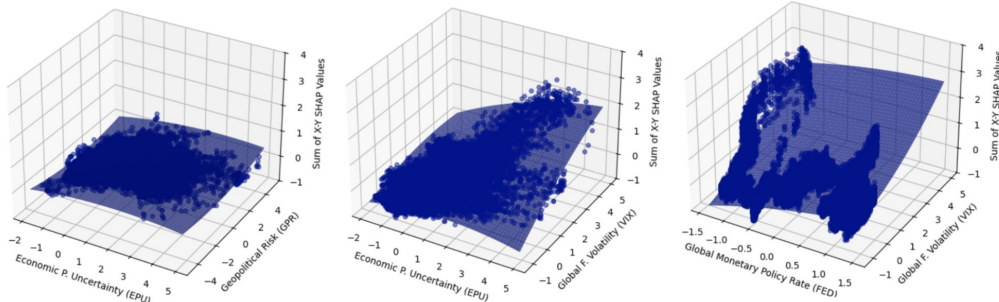


Geopolitical factor in Isolation only (but severely) affects the countries involved.

Some combination with Financial Variables is needed to see broad-based increase in Risk.

Complexity: Geopolitical Risk Morphing in Classical Financial

Degree of Complexity
Geopolitics (GPR) + Economic Pol Uncertainty (EPU) → EPU + Global Financial Volatility (VIX) → VIX + Global Interest Rates (FED)



but Departing from an Isolated Geopolitical event we can morph to more complex scenarios amplifying significantly the impact depending of the sequence of events...

Geopolitics & Uncertainty → Increase in volatility and Inflation → Tightening Central Banks + Volatility.

Two Contrasting Events: A Systemic Risk Event after Russia- Ukraine. (Global Financial as Amplifier)

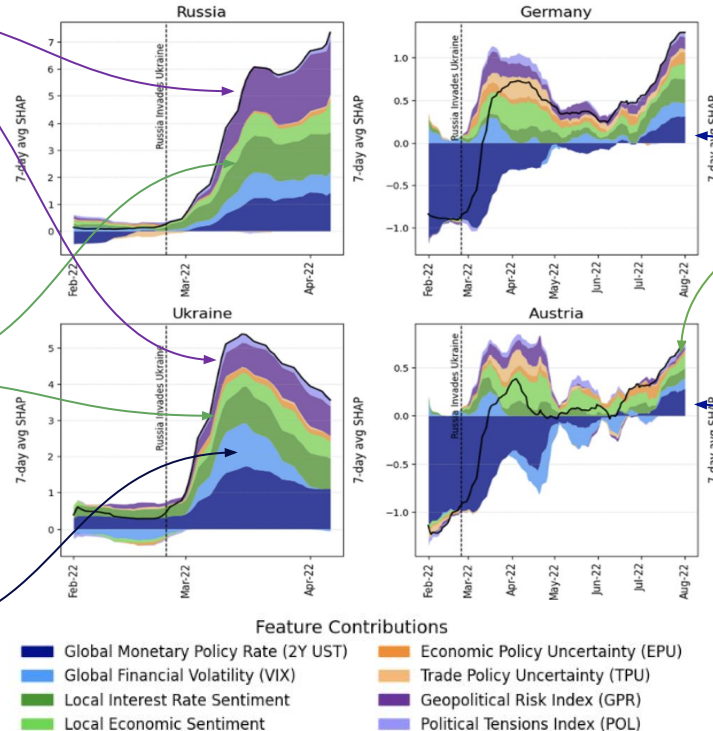
On March 2022 Russia finally invaded Ukraine...

Both Russia and Ukraine suffer a rapid & permanent increase in Geopolitical Risk contribution to CD Swaps.

... followed by a Permanent deterioration of Local Macro and Interest Rates (green).

... and increasing deterioration of sentiment in global Financial Markets.

Contribution to Sovereign CD Swaps Movements
(shap values contribution to Risk from different variables)



The Geopolitical Crisis was followed by Inflation triggered by Commodity prices Shock.

... And this morphed in a rapid response by Global Central Banks including (ECB, FED..) to control inflation ...

Which also increased Global Volatility in the financial Markets.

Both Turned the Global Financial Cycle variables as an amplifier of Risk.

For scenario building:
complexity matters

Two Contrasting Events: An “Episodic” Event after Hamas-Israel attack (Global Financial as Dampener)

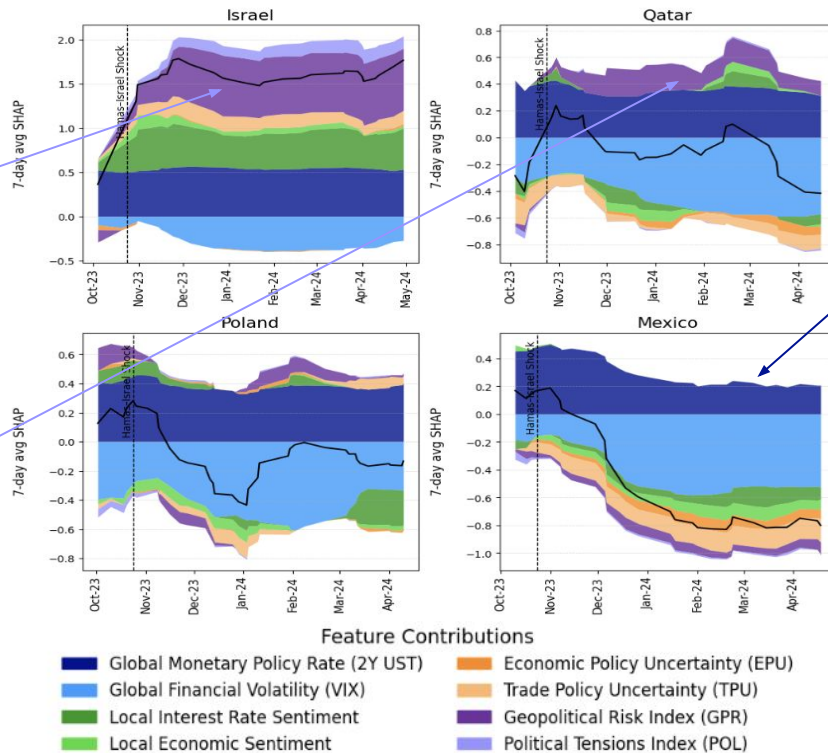
On October 2023 Israel suffered a brutal and surprise attack by Hamas...

Only Israel suffered a sharp and permanent increase in Geopolitical Risk contribution to CD Swaps + deteriorating Macro and increasing Macro Uncertainty.

... followed by a milder increase but temporary geopolitical risk in neighbours such as Qatar.

... But in general Global Risk was isolated from Geopolitics.

Contribution to Sovereign CD Swaps Movements
(shap values contribution to Risk from different variables)



Just after the Hamas Attack the Global Volatility index (VIX) dropped dramatically in part due to FED signalling the end of tightening cycle.

... The sharp decrease of VIX impacted on Sovereign risk with a sharp decrease in the contribution from Global Volatility component especially in Highly integrated markets as Mexico.

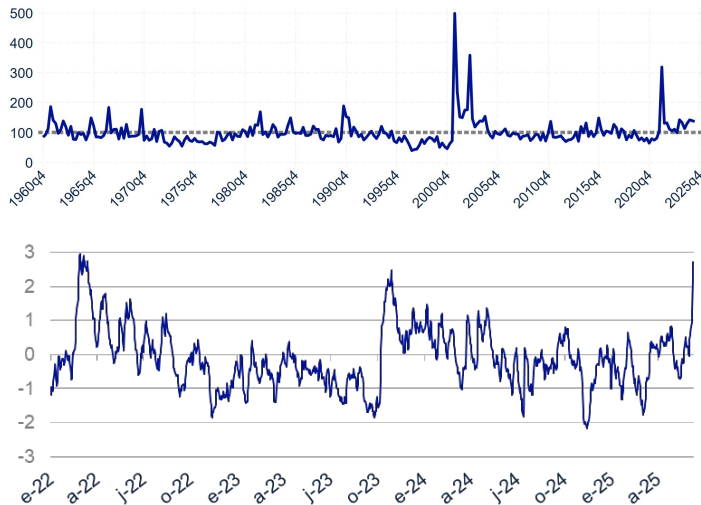
Decreasing Markets volatility outweighed the local contribution from Geopolitical tensions in Middle East.

For scenario building:
complexity matters

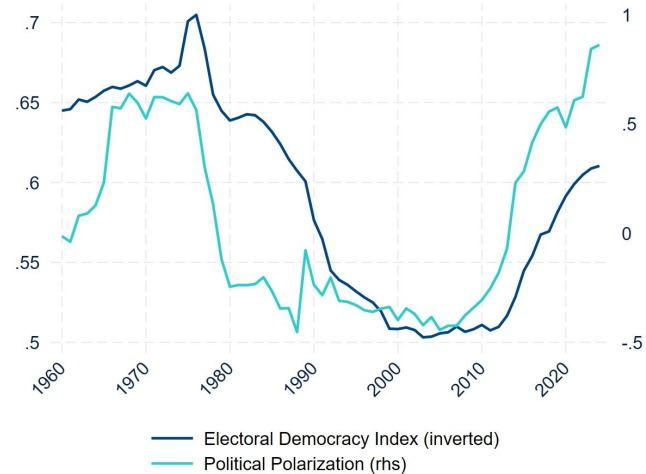
2. Geopolitical Risks: Structural Indicators and its economic impact

News-based indices can be complemented with structural shifts and trends to also see “hard data” variables

GEOPOLITICAL RISK INDEX (CALDARA & IACOVIELLO; BBVA RESEARCH*)



ELECTORAL DEMOCRACY (1 = AUTOCRACY, 0 = LIBERAL DEMOCRACY) & POLITICAL POLARIZATION (1960-2024, POPULATION WEIGHTED)



* Caldara & Iacoviello (2022) geopolitical risk index is the world-wide index, while BBVA Research indicator is US-based.
Source: BBVA Research from V-DEM Database and Caldara and Iacoviello (2022).

BBVA Research Structural Geopolitical Risk (SGR)

The SGR combines political, institutional, military, and ideological data to assess internal risks and external risks stemming from the rest of the world



Principal innovation of SGR relies on the external perspective: size and evolution of risk sourcing from each country, weighted by geospatial and ideological distances

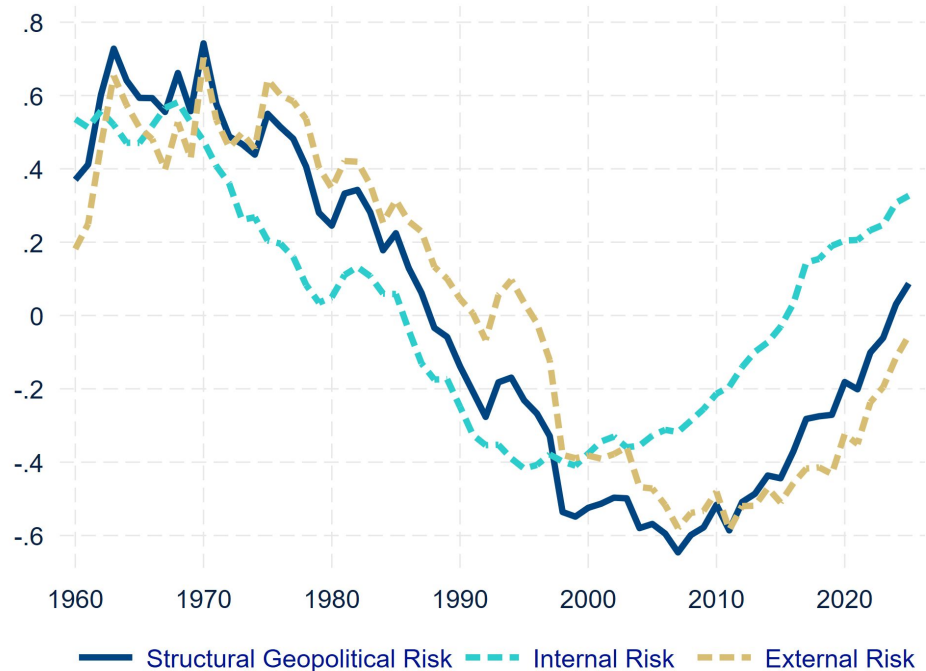
Global structural geopolitical shows that stress has risen since the GFC

Structural Geopolitical Risk (SGR)

Thus confirming prior beliefs, driven by institutional tensions and military buildups.

- The global structural geopolitical stress has reached **levels not seen since the late 1980s**.
- The escalation of **internal risks** seems to ultimately **translate into** an increase in overall **external risk** (causality?).

GLOBAL STRUCTURAL GEOPOLITICAL RISK (SGR) (1960-2024) (GDP WEIGHTED)



Note: total geopolitical risk is calculated by equally-weighting internal and external risk.
Source: BBVA Research.

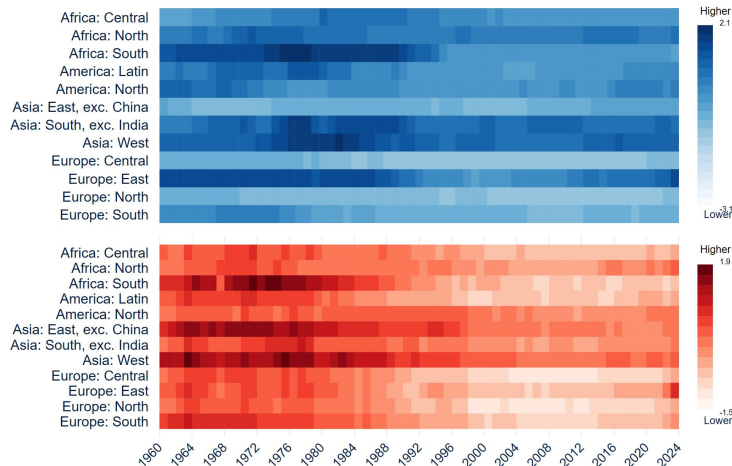
Regional aggregates provide an insightful worldwide geopolitical picture

Structural Geopolitical Risk (SGR)

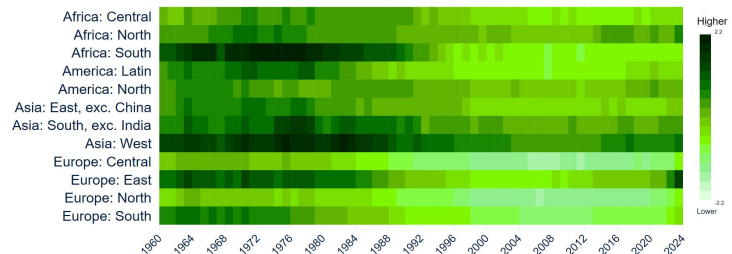
- Political turbulence in the Middle East has kept **West Asia** as one of the **regions with higher internal and external stress** for all the period.
- Stress in **Eastern Europe** has **surged recently** mainly due to a rise in external risk.
- **Southern Africa** has seen a dramatic **reduction** in geopolitical risk since the 90s.

REGIONAL HISTORICAL STRUCTURAL GEOPOLITICAL RISK (SGR) (1960-2024) (HIGHER VALUE INDICATES GREATER RISK)

INTERNAL (BLUE) & EXTERNAL (RED)



STRUCTURAL RISK



Source: BBVA Research.

Country-specific indicators:

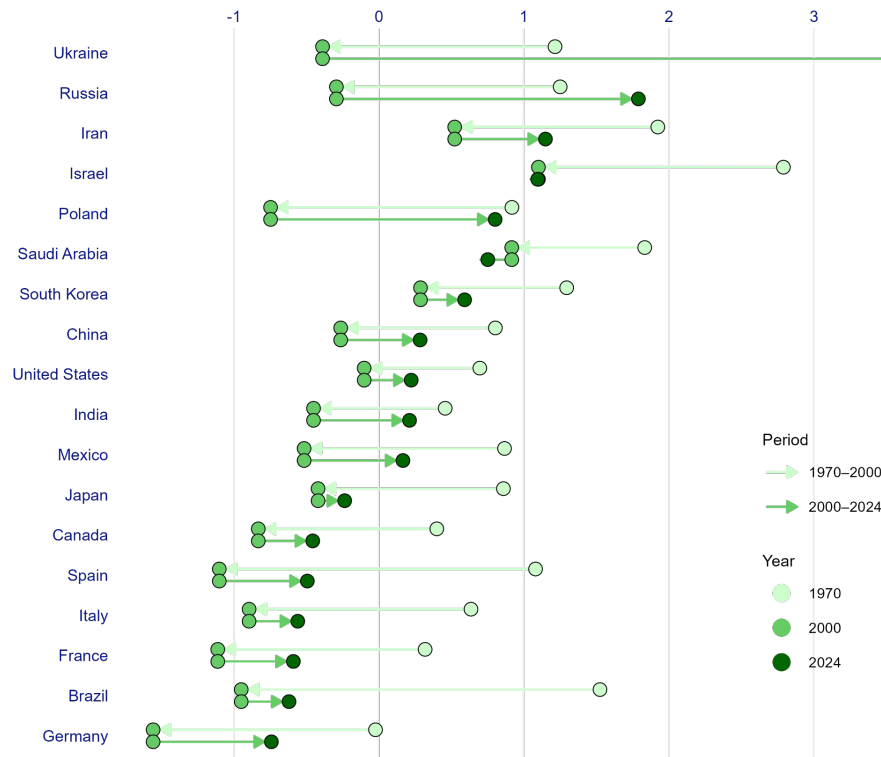
Structural Geopolitical Risk (SGR)

Countries recently involved in conflict and wars present the highest geopolitical risk levels (Ukraine, Russia, Iran, Israel) driven by a **combination of internal political turmoil and geography**: being located in conflict-ridden regions.

South Korea and China currently have similar levels of structural risk, although the risk in the former is due to external factors while in the latter is mainly due to internal ones.



STRUCTURAL GEOPOLITICAL RISK*



* Standardized values.

Source: BBVA Research. Ordered in descending order of 2024 values.

Combining news-based GPR with SGR accounts more accurately for changes in geopolitical risk

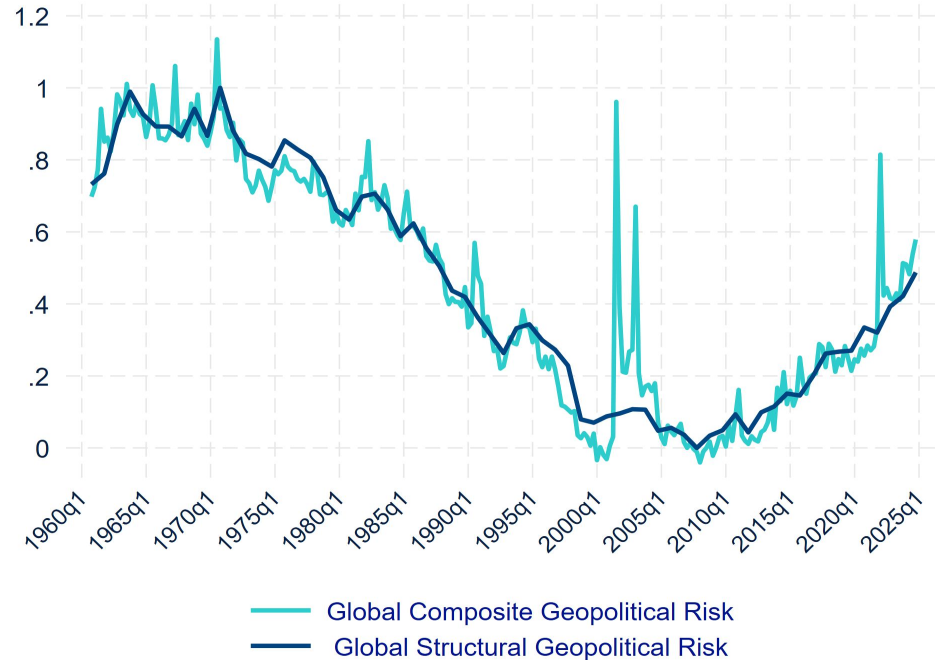
through different historical periods and at particular episodes

The combined stress indicator changes the relative risk conveyed by each indicator separately.

For instance, the **Sept-11 attacks episode does not show the highest peak as it does in the GPR**, since the structural risk was around the trough of the analyzed period.

On the contrary, the **stress level attained at the beginning of the Ukraine invasion is higher than the level during the second Iraq war**, due to the much higher structural risk seen recently.

GLOBAL COMPOSITE GEOPOLITICAL RISK (CGR) 1960Q1-2025Q1 (STANDARDIZED VALUES - GDP WEIGHTED)



Notes: both variables are standardized, and the implicit geopolitical risk index is additional demeaned, thus, letting the variable fluctuate around 0 (which adds volatility to the total geopolitical stress variable).
Source: BBVA Research calculations and Caldara and Iacoviello (2022).

The economic impact of Structural Geopolitical Risks

- We find **first evidence*** that:
 - higher SGR levels have **significant and persistent effects on trade, FDI, portfolio flows, credit risk (CDS), sovereign ratings, and long-term interest rates.**
 - structural geopolitical risk amplifies the impact of news-based geopolitical shocks.

(*) we estimate the extent to which structural geopolitical risk affects variables across a large sample of countries through different techniques: panel regressions, local projection methods, and probabilistic models,

→ stay tuned

Selected issues:

2. USD & the New Global Financial Architecture

Today's Global Financial Architecture rests on a highly developed global liquidity ecosystem around the USD

Hierarchical

USD at the apex of global currencies:

- Unit of Account (invoicing currency for trade),
- Standard of Deferred Payment (funding currency) /
- Medium of Exchange (Vehicle currency in FX markets).

Collaborative (Federal Reserve)

Coordinated policy response and unlimited **permanent swap lines** during crisis with five other major central banks.

- ECB
- BoJ
- BoE
- BoC
- SNB

Hybrid

The international dollar is largely a **private dollar**, representing liabilities of global private players rather than public central bank liability.

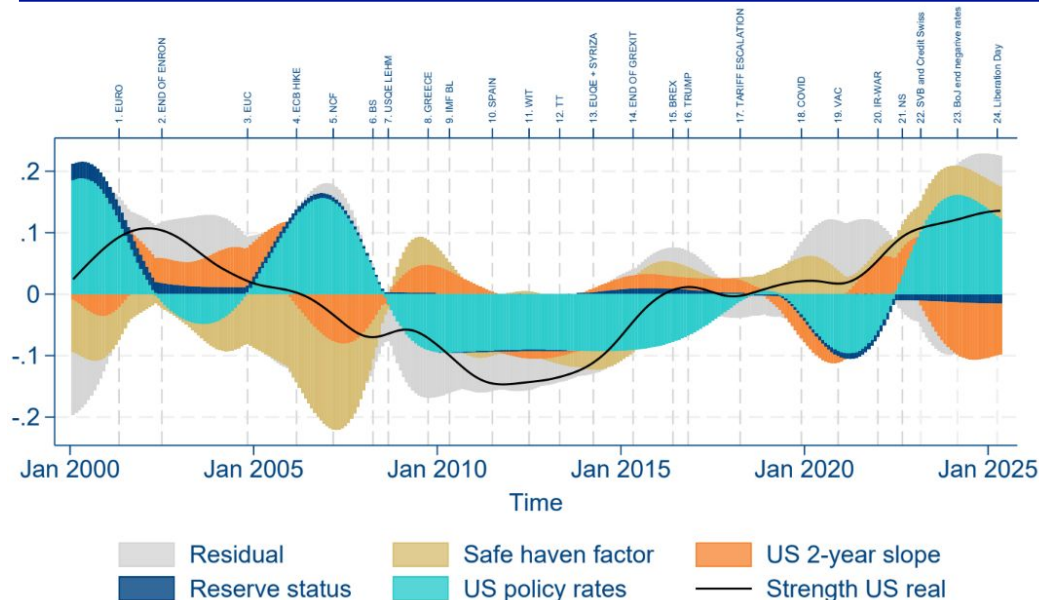
Interconnected

Major public and global private actors: banks, global dealers and clearing houses.

Evolving tech: from bills of exchange to deposit banking to derivatives ... to stablecoins & CBDCs?.

The USD's central role for global liquidity remains a key pillar underpinning its value

USD STRENGTH, A DECOMPOSITION OF SUPPORTING FACTORS (IN LOGS*100 AND DE-MEANED)

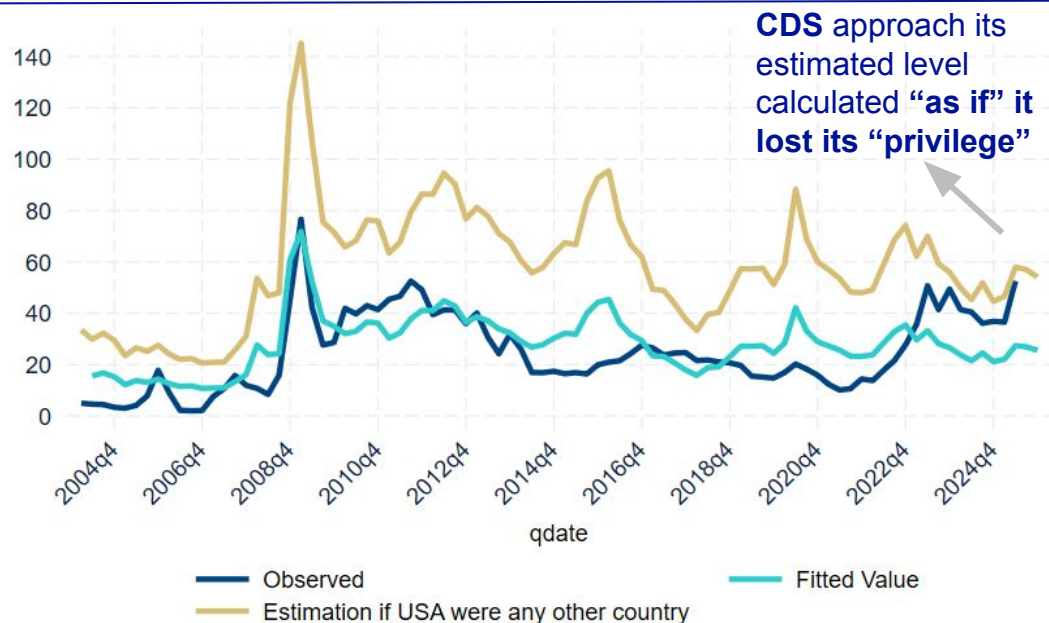


Our framework to analyse the long.run USD (vs EUR) shows:

- The USD strength is primarily driven by its dominant role in the capital and liquidity markets, i.e. as the preferred global reserve currency and the primary denomination for major global safe-haven assets.
- By early 2025, the EURUSD at 1.02 was misaligned (vs an estimated equilibrium rate of 1.20 USD per euro), primarily due to an overvaluation of the US dollar.

Financial weaponization and transactionalism may erode the dollar's credibility as the global system's backbone

US: 5 YEAR CDS



In theory, US imposed tariffs should appreciate the USD... however with the announcement of (very harmful) reciprocal tariffs, followed by erratic policies led to an (unexpected and rapid) depreciation of the USD.

Investors are concerned about the negative impact in the US economy and, more importantly, the risk that policies erode the exorbitant privilege of the USD.

While the US appears largely nonchalant— more focused on the cons of issuing the world's key liquidity currency

Exorbitant privilege

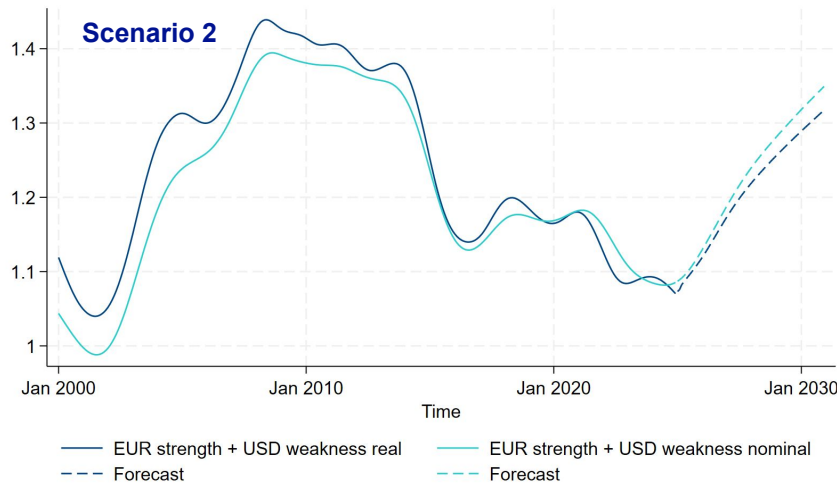
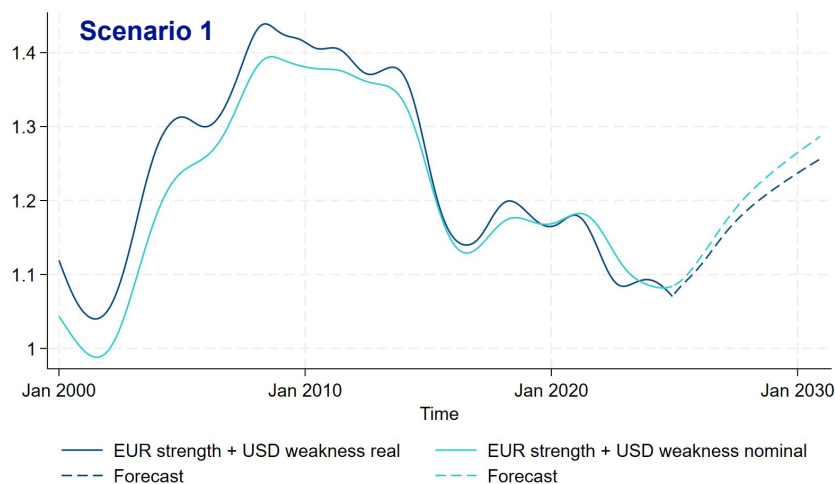
- **Seigniorage** revenue.
- Lower **funding costs** (convenience yield).
- Positive externalities and virtuous cycle between reserve currency status and deep **domestic capital markets**.
- **Geopolitical** clout.

Exorbitant duty

- **Lender/dealer of last resort** obligations (political friction between domestic mandate and global responsibility when facing a global financial crisis).
- **Supporting the growing requirements of USD** world reserves requires permanent/growing CA imbalances, **potentially leading to doubts on the currency** (Triffin dilemma) **or resistance from within** (Trump protectionism).

A managed decline in the USD's role as the world's liquidity anchor would trigger a significant depreciation

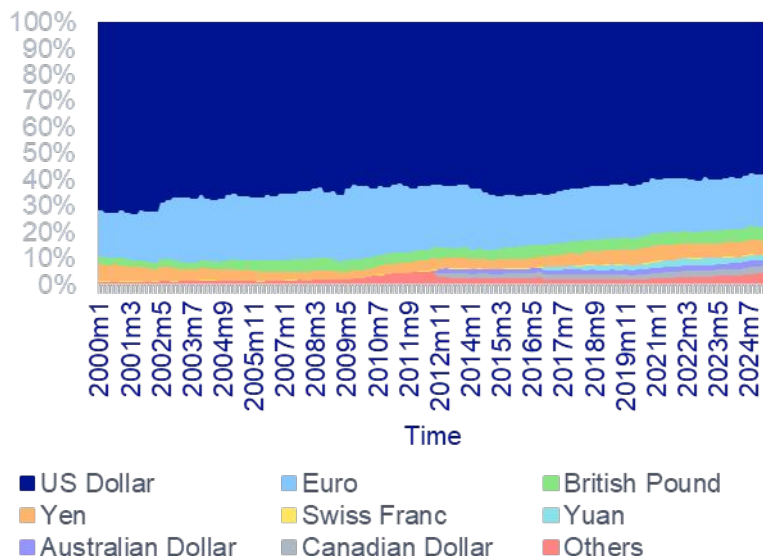
EURUSD, SIMULATIONS UNDER ALTERNATIVE SCENARIOS (IN LOGS*100 AND DE-MEANED)



- **Loss of role as liquidity anchor (proxied by falling share of the USD in global reserves):** 0.6 pp annual* decline in the share of the US dollar in central banks' international reserve portfolios.
- **Scenario 1:** The share of euros in international reserve portfolios captures 50% of the decline in preference for the US dollar.
- **Scenario 2:** The share of euros in international reserve portfolios captures 100% of the decline in preference for the US dollar.

But several (more disruptive) scenarios may emerge under a “decentralization” of the USD in the international system

CENTRAL BANKS' INTERNATIONAL RESERVES
(BY CURRENCY DENOMINATION, % OF TOTAL)



Global liquidity has gradually diversified over recent decades—but the USD has remained firmly at the very top, the hegemonic anchor on which the entire system rests.

Scenario 1:

**Endurance
(US hegemony)**

Scenario 2:

Kindleberger trap

Scenario 3:

**Multi currency
coordination**

Selected issues:

3. Defense in Europe

The EU peace dividend is definitely over...

Latest announcements (and apparently growing consensus) anticipate some key elements



...but, what insights do we have into **its potential economic impact?** **Key aspects** include:



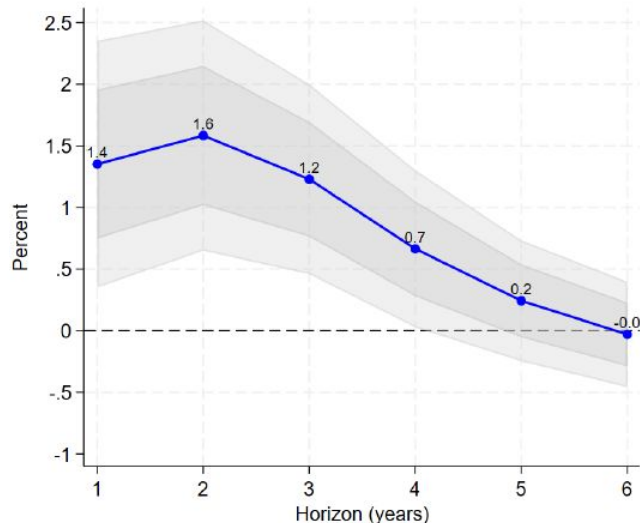
Based on **García-Serrador, Sarasa-Flores and Ulloa (2025): Buy Guns or Buy Roses?: EU Defence Spending Fiscal Multipliers** ([BBVA Research WP 25/06](#))...

Cumulative Fiscal Multipliers

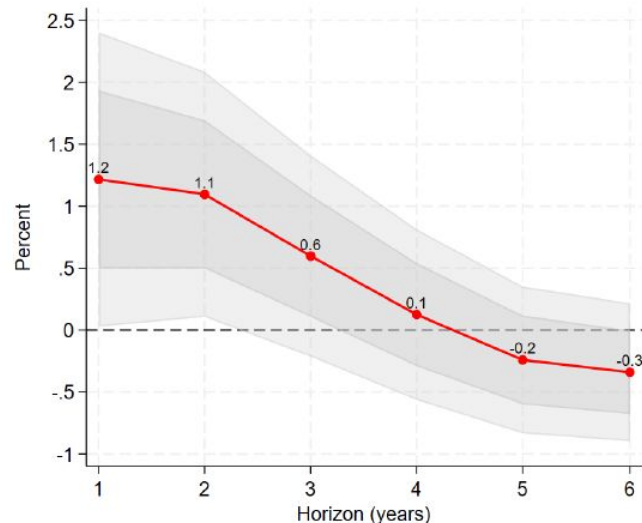
Elevated short-term defence spending multipliers (1.4-1.6), which fade in the medium-term (panel a), resulting in no lasting structural effects on output (panel b)

CUMULATIVE DEFENCE FISCAL MULTIPLIERS

(A) TREND-NORMALIZED OUTPUT



(B) REAL GDP



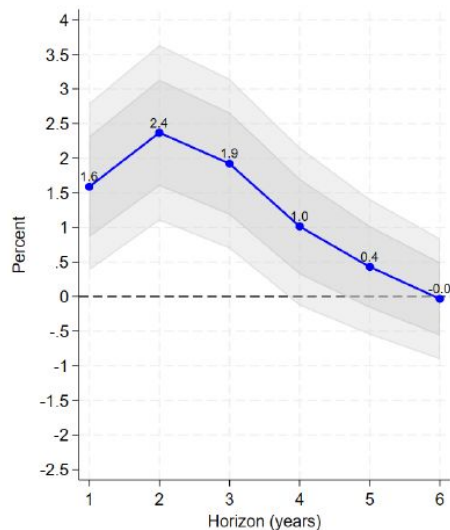
Note: the estimation sample cover all EU-27 countries from 1995 to 2023 in a annual basis.
Source: García-Serrador, Sarasa-Flores and Ulloa (2025).

What the Money is Spent on Matters:

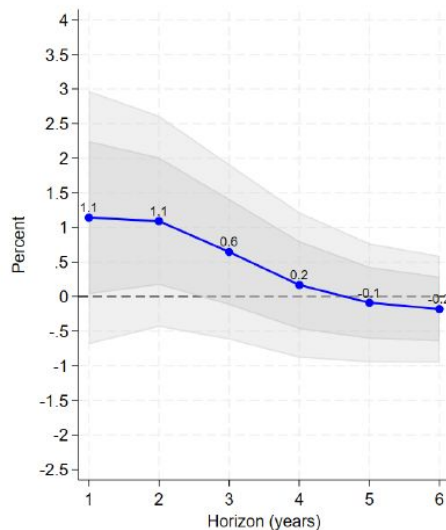
Disaggregating defence outlays confirms marked heterogeneity in the cumulative multiplier profile, where capital-intensive outlays drive yield substantial short-run multipliers

CUMULATIVE DEFENCE FISCAL MULTIPLIERS: SPENDING COMPOSITION

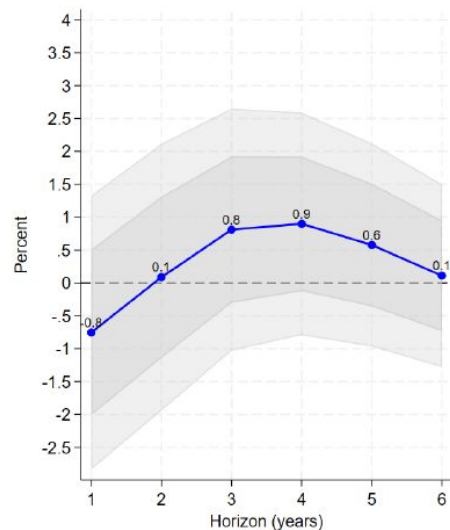
(A) GFCF



(B) PERSONNEL



(C) INT. CONS.

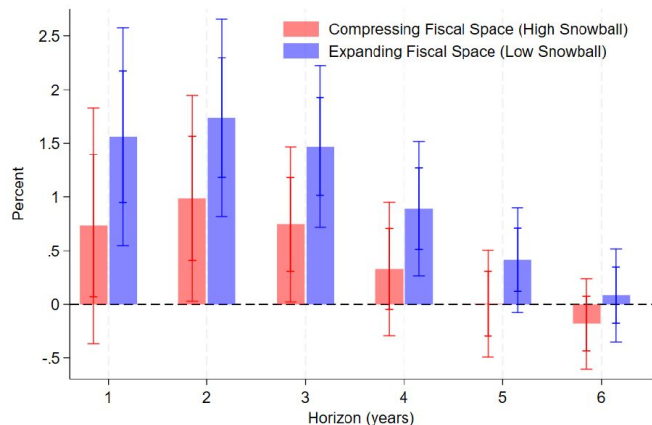


State-dependent multipliers

In addition to the cyclical position, fiscal multipliers surpass unity when countries possess ample fiscal space and exhibit low military imports dependence

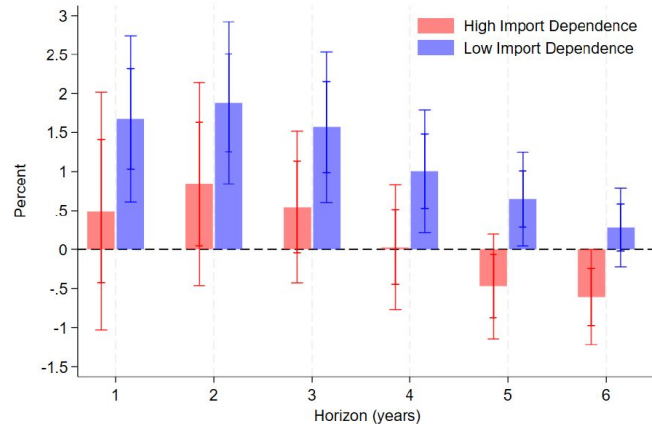
State indicator: **snowball effect**

CUMULATIVE DEFENCE FISCAL MULTIPLIERS: FISCAL SPACE STATE-DEPENDENCE



State indicator: **total military imports relative to total defence spending**

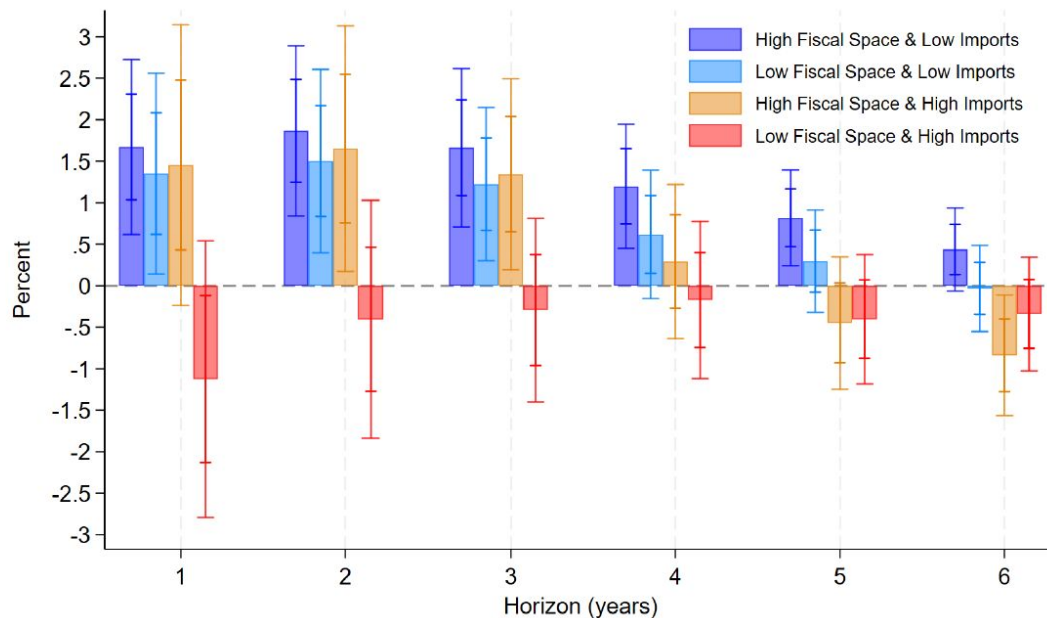
CUMULATIVE DEFENCE FISCAL MULTIPLIERS: IMPORTS RELIANCE STATE-DEPENDENCE



Embedded Non-linearities: Fiscal Space + Imports Reliance

Worst-case scenario of depressed fiscal space and elevated military imports leakage imply non-significantly different from 0 multipliers at all horizons

CUMULATIVE DEFENCE FISCAL MULTIPLIERS: EMBEDDED-STATE-DEPENDENCE

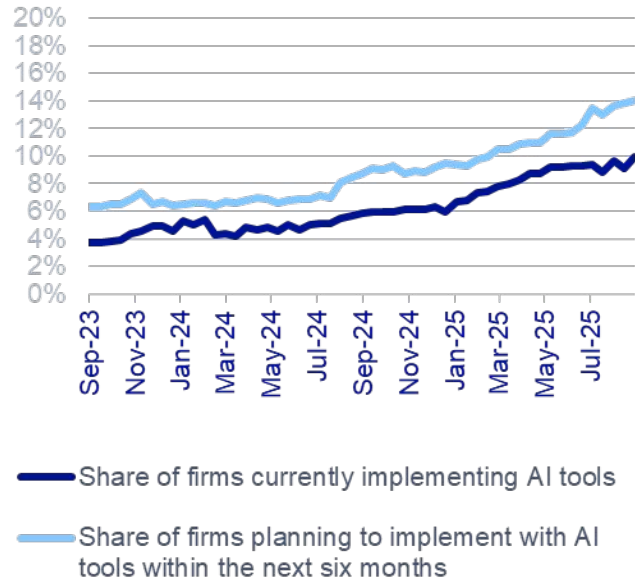


Selected issues:

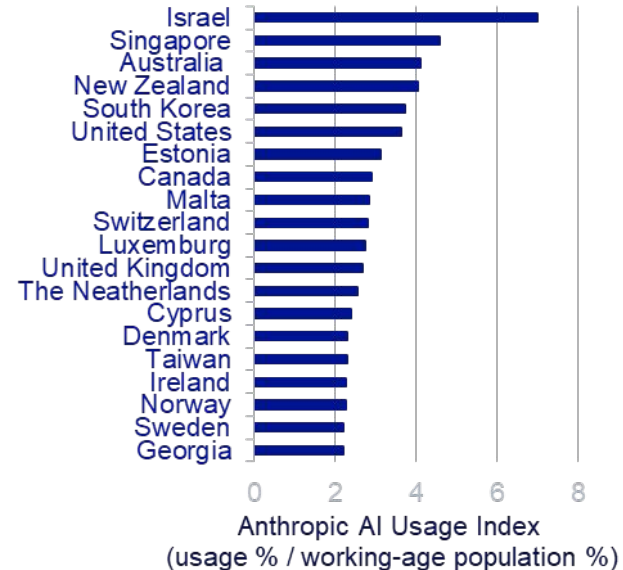
4. GenAI, employment and productivity

Adoption is accelerating but remains uneven, led by advanced economies and large & digitally mature firms

AI ADOPTION RATES AMONG US FIRMS
(% OF TOTAL FIRMS)

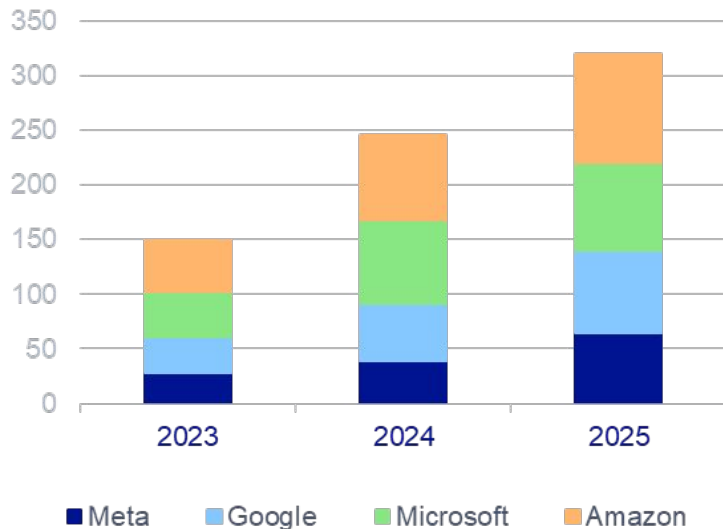


ANTHROPIC AI USAGE INDEX BY COUNTRY (*)



AI investment demand fuels short-term growth amid still uncertain long-term gains

CAPITAL EXPENDITURE IN AI BY BIG TECH COMPANIES (USD, BILLION)



- **AI investment by the largest tech companies is surging**, with 2025 capex set to significantly outpace 2024 and 2023 as they scale compute, data centers, and model development.
- **This wave is already visible in the macro data and intangibles**: in H1 2025, AI-related investment accounted for a significant share of the US GDP's 1.6% annualized rise; estimates of AI's direct contribution range from about 0.5 pp to nearly the full 1.6 pp.

AI fuels high hopes—not just for productivity, but for the very engines of innovation and entrepreneurship

- Building on experimental evidence, we highlight **three main channels through which generative AI can shape economic outcomes**:

Productivity and firm performance - through task automation, skill enhancement, and operational transformation.



Innovation - by fostering idea generation, creativity, and R&D.



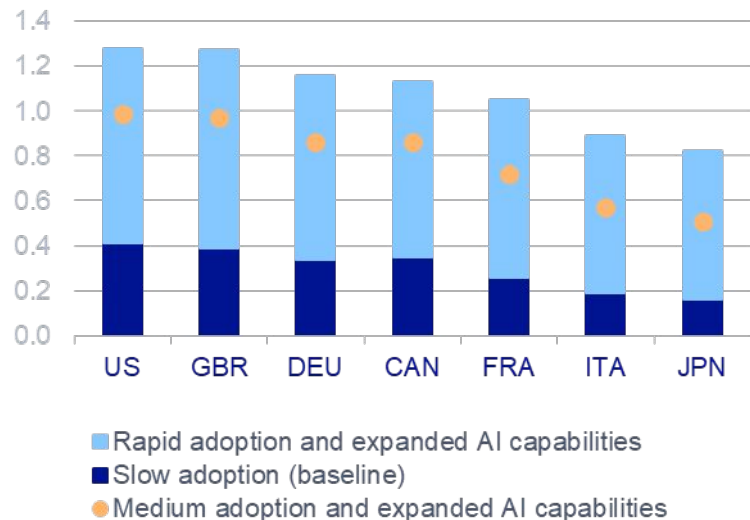
Entrepreneurship - by lowering entry barriers and supporting early-stage growth.



- **AI's aggregate productivity impact will unfold gradually, following a J-curve pattern** as adoption, complementary investments, and organizational adaptation take hold. (as any global purpose technology would do).

AI's aggregate productivity impact will unfold gradually, following a J-curve pattern

PREDICTED INCREASE IN ANNUAL LABOUR PRODUCTIVITY GROWTH OVER A 10-YEAR HORIZON DUE TO AI (PP, %)



AI, like past general-purpose technologies, **requires large complementary investments** -often intangible- that are poorly captured in national accounts.

During its diffusion, firms experiment with applications, reorganize production, and workers adapt to new processes. Productivity gains tend to be underestimated in early adoption phases and overestimated once benefits materialize, **the Productivity J-curve** dynamic ([Brynjolfsson, Rock and Syverson, 2021](#)).

Productivity gains from AI are expected to be highly heterogeneous across countries and sectors—largely conditional on adoption speed and AI capabilities. For example, OECD estimates suggest that, across G7 economies, AI could lift annual labour productivity growth by 0.2–0.4 pp under slow adoption and up to 0.8–1.3 pp under fast adoption ([Filippucci et al. 2025](#)).

Yet, there remains strong debate and no clear consensus on the magnitude, timing, or persistence of such effects.

Other relevant topics:

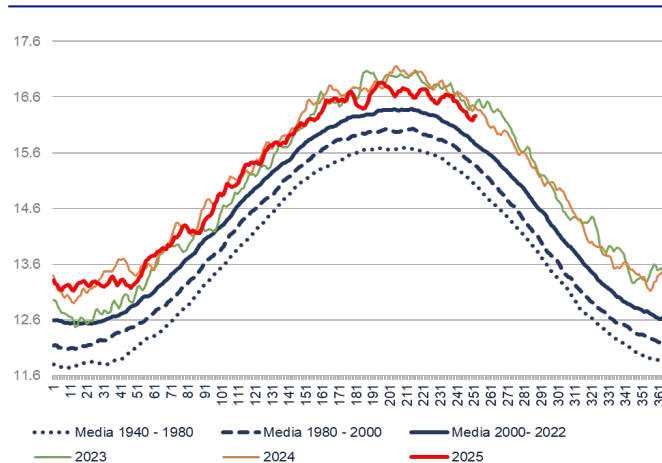
- 4. Climate change
- 5. The future of money

Rising temperatures and climate-related events highlight the urgency of decarbonization

2025 is on track to be the second or third warmest year on record (see [Carbon Brief](#)).

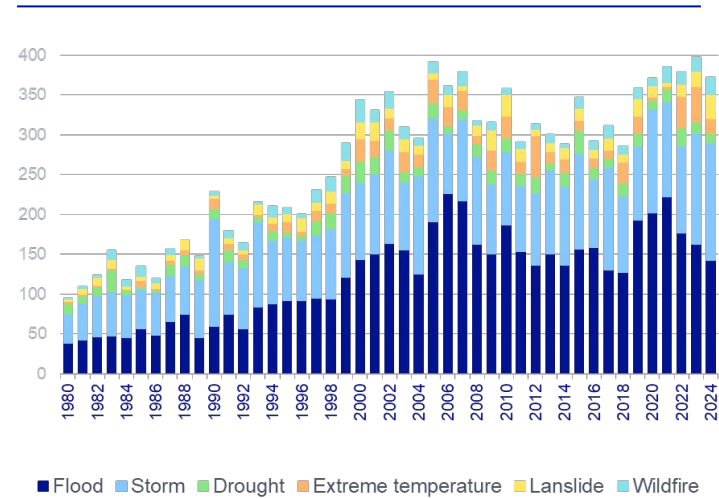
Empirical evidence indicates an upward trend in both frequency and severity of climate related acute events.

**WORLD TEMPERATURE EVOLUTION (°C)
1980-2025**



Note: Daily mean surface air temperature (2-meter height).
Source: BBVA Research from [ERA5 hourly data on single levels](#).

**WORLD CLIMATE-RELATED ACUTE EVENTS
1980-2024**

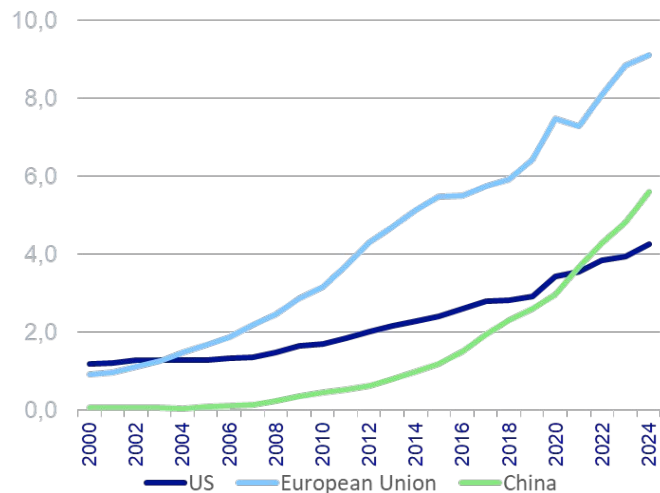


Source: BBVA Research from [EM-DAT](#).

Geopolitics is shaping the race for decarbonization, with China and the EU pushing forward as the USA retreats

In the US, the upward trend in decarbonization was slowed more than a decade ago by the shale oil revolution and, currently, by policies favoring fossil fuels to meet rising energy

RENEWABLE POWER SUPPLY(*)
(% OF TOTAL ENERGY SUPPLY)

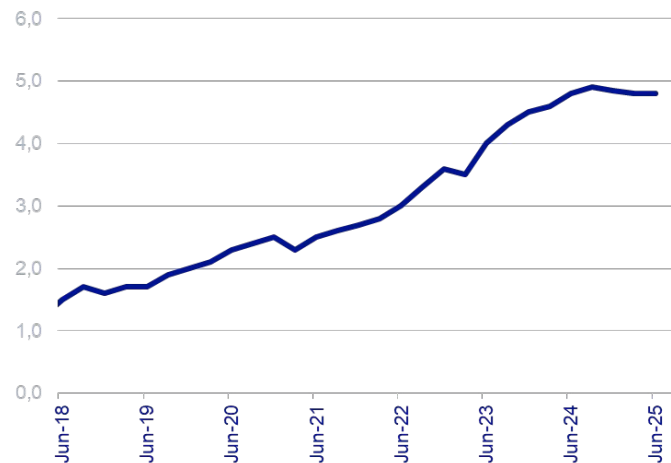


(*) Renewable power: Solar, wind, geothermal, biomass.

Energy supply comprises commercially-traded fuels, including modern renewables used to generate electricity.

Source: BBVA Research from [Home | Statistical Review of World Energy](#).

**US CLEAN INVESTMENT AS A SHARE OF
TOTAL PRIVATE INVESTMENT (%) (**)**

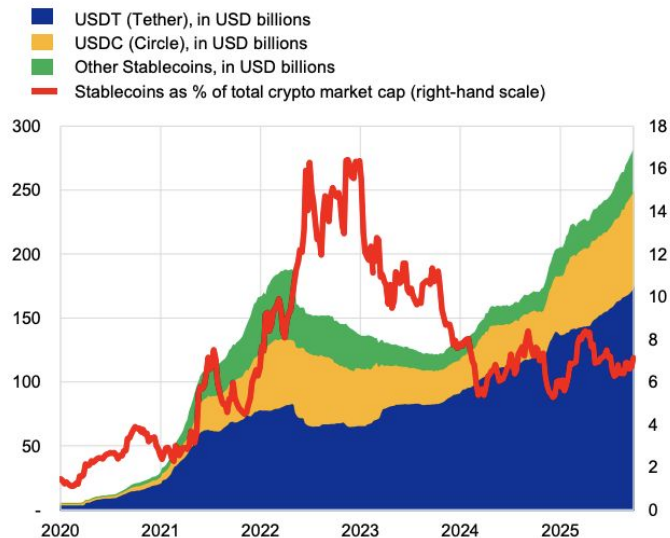


(**) (Annualized basis, total investment in all private structures, equipment, and durable consumer goods).

Source: Rhodium Group/MIT-CEEPR Clean Investment Monitor and Bureau of Economic Analysis.
[Clean Investment Monitor: Q2 2025 Update – Rhodium Group](#).

Stablecoins— the next step in the technology of money?

Size of USD-denominated stablecoins in the crypto-asset ecosystem



Sources: CoinDesk, IntoTheBlock, CoinMarketCap and ECB staff calculations.

GENIUS-Act stablecoins mark the next evolution of the US dollar: privately generated, fully reserved, redeemable at par, and blockchain-based, offering real-time settlement and programmable finance.

- Significant implementation details remain in flux. If circulation expands, the Fed must balance extending the dollar's digital reach with maintaining control over monetary policy transmission and systemic liquidity.

In contrast, while US stablecoins grow through market-driven innovation, the ECB's digital euro reflects a state-led **CBDC** model focused on public trust, privacy, and monetary sovereignty — a slower path designed to preserve control within the central bank framework.

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