



# BIS Bulletin

No 110

Macroeconomic impact of tariffs and  
policy uncertainty

Emanuel Kohlscheen, Phurichai Rungcharoenkitkul, Dora Xia  
and Fabrizio Zampolli

12 August 2025

BIS Bulletins are written by staff members of the Bank for International Settlements, and from time to time by other economists, and are published by the Bank. The papers are on subjects of topical interest and are technical in character. The views expressed in them are those of their authors and not necessarily the views of the BIS. The authors are grateful to Julian Caballero, Pablo Hernandez de Cos, Daniel Rees, Hyun Song Shin, Frank Smets and Christian Upper for helpful comments, Hongyan Zhao for sharing trade model estimates, Adam Cap and Yui Ching Li for excellent analysis and research assistance, and to Nicola Faessler for administrative support.

The editor of the BIS Bulletin series is Hyun Song Shin.

This publication is available on the BIS website ([www.bis.org](http://www.bis.org)).

© *Bank for International Settlements 2025. All rights reserved. Brief excerpts may be reproduced or translated provided the source is stated.*

ISSN: 2708-0420 (online)  
ISBN: 978-92-9259-880-8 (online)

## Macroeconomic impact of tariffs and policy uncertainty

### Key takeaways

- Tariffs affect economies most directly through trade volume and prices. Tariffs lower output growth everywhere, though the magnitude varies by country and scenario. They also tend to raise inflation, most notably in the imposing countries.
- Tariffs have indirect effects, including exchange rate shifts, supply chain disruptions, trade diversion and heightened uncertainty. These could worsen growth and inflation effects as well as the policy trade-offs central banks face.
- If it proves persistent, trade policy uncertainty could depress domestic demand and put global growth at risk.

The global economy has until recently shown remarkable resilience in the face of tariff hikes and policy uncertainty. Global economic activity held up through the first half of the year, supported by a front-loading of trade, a more gradual increase in effective tariff rates than anticipated in April and easy financial conditions. This unexpected strength has led some forecasters to upgrade their growth outlooks from earlier pessimistic projections (eg see the IMF's July projection (IMF (2025)).

However, higher tariffs could eventually weigh on global growth. Even though some countries have reached bilateral trade deals, average US tariffs are likely to settle at levels unprecedented in the modern era. Indeed, US tariff revenues had already quadrupled by July 2025 (Graph 1.A). The increased trade costs are starting to affect corporate earnings in some manufacturing sectors. Recent US economic data – such as weaker private spending, persistent inflation and softening labour market performance – indicate emerging economic weakness. Subdued consumer confidence across advanced (AEs) and emerging market economies (EMEs), coupled with weak investment due to lingering uncertainty, could further weigh on domestic demand going forward.

The inflationary effects of tariffs could also be significant, albeit uneven across countries due to the largely unilateral nature of these measures. In the United States, which imposed the tariffs, higher import prices are likely to increase price pressures. For other countries, the inflationary implications are less clear cut. On the one hand, lower export demand, trade diversion and currency appreciation can reduce inflation. On the other hand, if tariffs disrupt supply chains, higher inflation could materialise globally. With the post-pandemic inflation surge still fresh in memory, inflation expectations could be less well anchored in this event.<sup>1</sup>

This Bulletin explores the macroeconomic implications of tariffs, discussing propagation channels and presenting quantitative estimates of their growth and inflation impacts. It also examines the broader effects of tariffs and potential amplification mechanisms, from prolonged trade policy uncertainty to financial vulnerabilities.

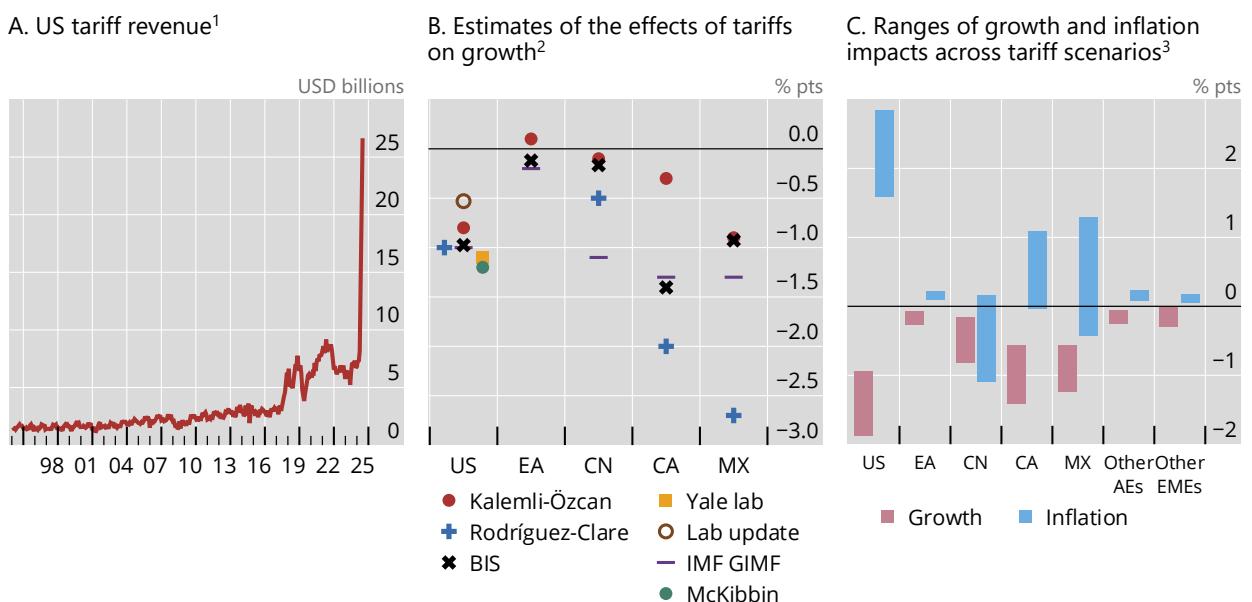
<sup>1</sup> De Fiore et al (2025) find that perceptions of significant price hikes post-pandemic tend to feed into higher household inflation expectations, pointing to the risk of a lasting impact of temporary inflation bursts.

## Macroeconomic implications of tariffs: channels and impacts

Tariffs affect growth and inflation most directly through trade. For tariff-imposing countries, tariffs raise import prices, thereby depressing real income and demand and resulting in an adverse supply or stagflationary shock. The relative burden of adjustment on output and inflation depends on firms' margin responses and households' consumption price elasticity, which in turn are shaped by factors such as market power and substitutability between goods. For countries subject to tariffs, the dominant effect may be lower export demand from the imposing countries, which by itself would lead to lower growth and inflation. Trade dependence determines the domestic impact, while globally, trade linkages and supply chains tend to propagate stagflationary effects.

Tariff hikes pose a downside risk to global growth

Graph 1



<sup>1</sup> Monthly customs duties receipts of the US government. <sup>2</sup> Estimates of tariffs' effects on short-run GDP growth, from Kalemlı-Özcan et al (2025), Rodríguez-Clare et al (2025), IMF Global Integrated Monetary and Fiscal (GIMF) projection from IMF World Economic Outlook (April 2025), the Budget Lab at Yale (15 April), McKibbin et al (2024) and BIS via Zhao (forthcoming). Yale lab update as of 1 August, BIS estimate as of 31 July. Forecast horizons vary across studies, ranging between one and three years. <sup>3</sup> Ranges of outcomes of three tariff scenarios: a benign case (US–China tariffs as of latest deal, 10% US tariffs on others with no retaliation); middle case (US–China tariffs at 30%, US tariffs on others are as agreed as of 31 July 2025, with no retaliation except from China and Canada); and worst case (US–China tariffs at peak levels, US tariffs on others as announced on 2 April with retaliation), based on Zhao (forthcoming). For the regions, GDP-PPP weighted averages for seven other AEs and 15 other EMEs.

Sources: Kalemlı-Özcan et al (2025); McKibbin et al (2024); Rodríguez-Clare et al (2025); Zhao (forthcoming); IMF; Budget Lab at Yale; US Department of the Treasury; LSEG Datastream; BIS.

Trade models offer some insights into the quantitative impacts of tariffs through the trade channel. These models consistently project lower output growth across the board, though the magnitude varies by country, model and scenario. The United States is generally the most affected economy due to tariffs being imposed on a wide range of trading partners, with near- to medium-term growth projected to drop by about 1 percentage point (Graph 1.B). Impacts on other major economies, including the euro area and China, are generally projected to be smaller, though more dependent on the specific model used. Consideration of multiple scenarios of varying tariff levels and possible retaliation widens the range of possible outcomes, yet the United States remains the most affected in terms of both growth and inflation (Graph 1.C). In scenarios involving the highest tariffs and retaliation, Canada and Mexico would face the strongest stagflationary effects, after the United States.<sup>2</sup>

<sup>2</sup> An online appendix discusses the main strengths and caveats of each of these widely used trade models.

Beyond their trade impact, tariffs also affect growth and inflation through indirect channels, often omitted from workhorse models. Higher tariffs could induce supply chain disruptions and trade diversion. Prolonged trade negotiations may also generate heightened uncertainty that weighs on domestic demand. We consider each in turn.<sup>3</sup>

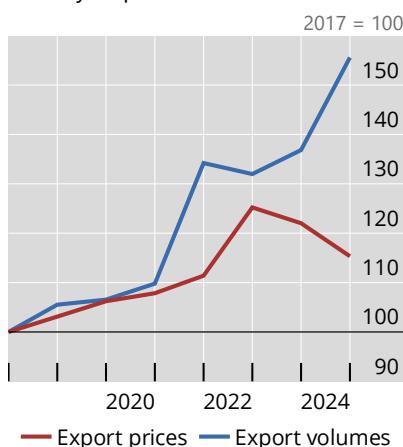
Supply chain disruptions can raise inflationary pressures even in economies with minimal price effects from trade channels. These disruptions can arise through two mechanisms. First, tariff hikes on intermediate inputs may render it too costly for firms to produce certain goods, either altogether or at previous volumes, thus creating shortages or bottlenecks further down the supply chain. Second, firms may also face funding constraints as higher input costs increase the need for working capital. While most supply chain indicators do not signal active disruptions so far, the recent decline in cross-Pacific shipping activities point, as of July, to brewing risks that warrant close monitoring. Once triggered, supply chain disruptions can rapidly intensify and become self-reinforcing (eg due to bullwhip effects; see Rees and Rungcharoenkitkul (2021)).

To avoid higher tariffs, exports could be diverted and rerouted through countries facing lower duties, generating deflationary pressures in those markets. Recent trade data suggest that trade diversion may have been taking place for some time as the prospects of trade tension loomed. Chinese export volumes have expanded robustly in recent years even as export prices have fallen; and more recently, in the first half of this year, exports to the European Union and ASEAN countries have continued to rise as exports to the United States contracted sharply (Graphs 2.A and 2.B).<sup>4</sup> Some governments may view trade diversion as a threat to their already ailing manufacturing sectors (Graph 2.C).

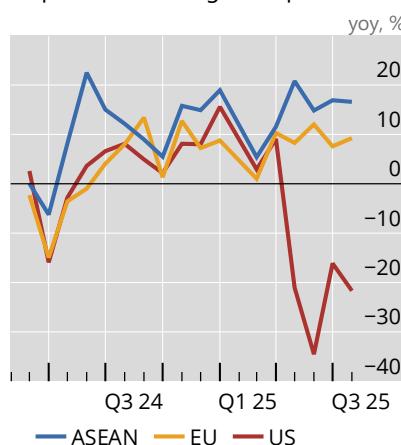
### Tariff hikes could intensify trade diversion

Graph 2

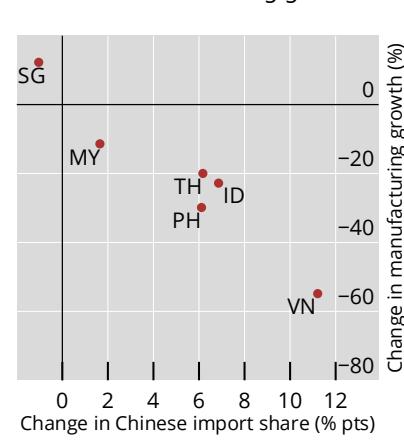
A. China's trade volume expands steadily as prices fall<sup>1</sup>



B. China's higher exports to ASEAN helped offset falling US exports<sup>2</sup>



C. Many ASEAN countries saw a decline in manufacturing growth<sup>3</sup>



<sup>1</sup> China merchandise export unit value (measured in RMB) index and volume index. <sup>2</sup> China's export data are combined for January and February to calculate year-on-year growth. <sup>3</sup> The x-axis represents the percentage point change in shares of Chinese imports from 2018 to 2024, while the y-axis shows the cumulative percentage change in manufacturing production volume from 2018 to 2023 minus that from 2012 to 2017 (for Vietnam, the y-axis reflects the difference between the periods 2018–22 and 2013–17).

Sources: UNIDO; CEIC; Macrobond; BIS.

Beyond tariff levels, uncertainty around US trade policies could additionally weigh on global growth by delaying business investment and durable consumption. According to the “real options” approach to decision-making, businesses and consumers may prefer to wait for greater clarity before incurring

<sup>3</sup> Persistent tariffs could also have implications for global supply chain reconfigurations and government tax revenues, shaping macroeconomic outcomes in the longer term. We abstract from these considerations in this Bulletin.

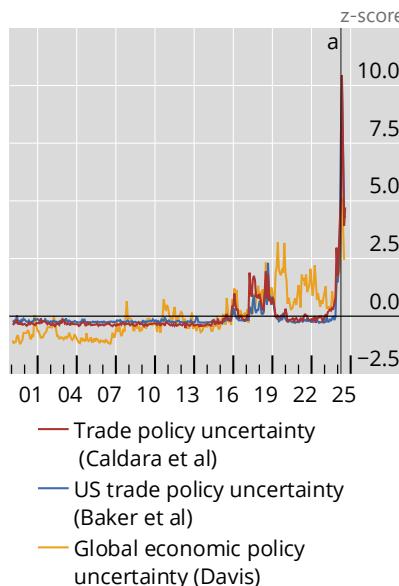
<sup>4</sup> It is unclear how much these exports were rerouted to the United States. A significant trade rerouting would imply less disinflationary impact in transhipment countries. Meanwhile, the depreciation of the RMB may amplify downward price pressures from Chinese exports, especially for those invoiced in RMB.

irreversible costs. Despite tariff pauses and more trade agreements being reached, measures of trade policy uncertainty have remained elevated (Graph 3.A).<sup>5</sup> Empirical evidence indicates that higher policy uncertainty has sizeable negative effects on output. Moderate but prolonged uncertainty could be just as detrimental to growth as a large adverse supply shock (Graph 3.B).<sup>6</sup> Higher policy uncertainty has historically been associated with a downward shift in projected growth for both AEs and EMEs, reducing the left tail of growth outcomes by up to two percentage points (Graph 3.C).

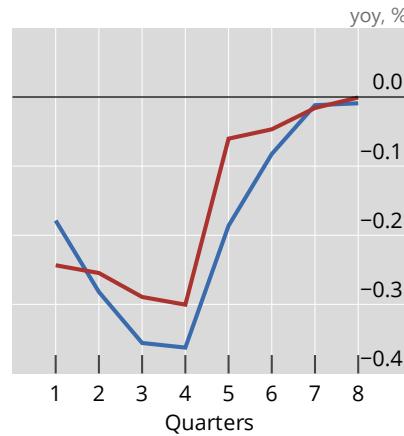
### Trade policy uncertainty weighs on growth

Graph 3

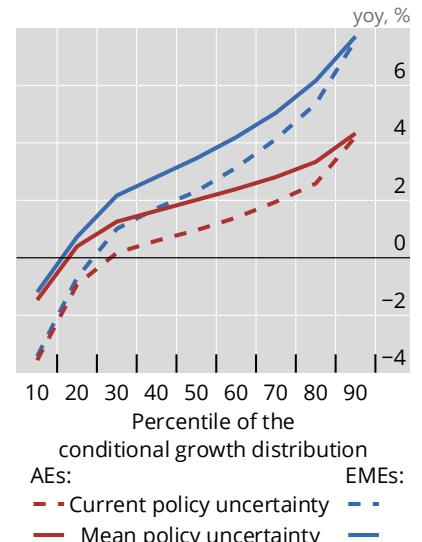
A. Trade policy and economic policy uncertainties<sup>1</sup>



B. Persistent uncertainty is a significant drag on GDP<sup>2</sup>



C. Policy uncertainty shifts growth distribution down<sup>3</sup>



<sup>a</sup> 2 April 2025: "Liberation Day".

<sup>1</sup> Z-score from 2000 to present. <sup>2</sup> Impulse response functions of GDP to shocks identified through sign restrictions (see Burgert et al (2025)). "One-time supply shock" is a one-time one standard deviation shock that pushes up inflation while lowering investment and GDP growth. "Persistent uncertainty shock" is a one standard deviation shock, spread out over three quarters, that raises uncertainty while lowering investment and GDP growth. <sup>3</sup> Expected growth rate within four quarters, based on a growth-at-risk model that features the current growth rate, one- and 10-year government bond yields, the deviation of the real effective exchange rate from each country's historical average, economic policy uncertainty, the VIX index and country dummies. Economic policy uncertainty is standardised country by country. The model was estimated based on 21 countries in a 2000–25 sample period. For AEs, GDP-weighted average for CA, EA, GB, JP and US; for EMEs GDP-weighted average for BR, CL, IN and KR.

Sources: Baker et al (2016); Burgert et al (2025); Caldara et al (2020); Davis (2016); Bloomberg; LSEG Datastream; BIS.

Tariff policy could test the resilience of global growth through these channels, though its full impact may take time to materialise. One reason for the lagged effects is that firms and households may be able to draw on existing stocks of goods as substitutes for imports. Some exporters may also be reducing their prices, temporarily accepting a reduction in their profit margins in an effort to protect their market shares. Progress in trade negotiations may also help lift investor sentiment and keep financial conditions loose, at least temporarily.<sup>7</sup> We next turn to examining the role of these financial factors.

<sup>5</sup> Temporary tariff pauses and negotiations, while lowering tariffs, may prolong perceived policy uncertainty.

<sup>6</sup> See Burgert et al (2025), who employ the same model but consider the impact of a realised increase in economic policy uncertainty. Instead, the analysis here assumes one standard deviation shock, spread out over three quarters, for comparability with the one-off one standard deviation supply shock.

<sup>7</sup> Some of the most recent resilience in activity may partly reflect measurement issues. The unusual swings in trade driven by the anticipation of tariffs may have distorted near-term GDP figures, especially as inventories tend to be measured with less accuracy and timeliness than imports. In particular, an outsize pullback in Q2 imports after previous front-loading may have

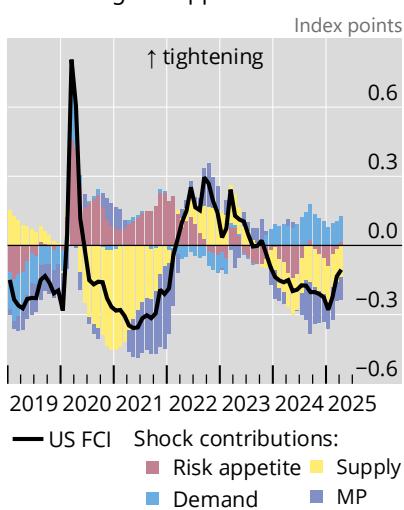
## Financial factors shape growth fallout from tariffs

Accommodative financial conditions have so far played a key role in buffering the global economy from the impact of tariff shocks. One important factor is the benign financial market reaction to tariffs. The "Liberation Day" sell-off of risky assets proved short-lived, as investor sentiment quickly rebounded following progress in trade negotiations. Strong risk appetite underpins overall US financial conditions, which continue to be stable and supportive of growth (Graph 4.A). A weaker US dollar also helps to strengthen risk sentiment through the risk-taking channel of exchange rates, but especially through the balance sheets of EME corporations with dollar debt, promoting portfolio inflows and lowering the bond risk premium there.<sup>8</sup> Dollar weakness may also have increased room for non-US economies to ease monetary policy and lower borrowing costs.

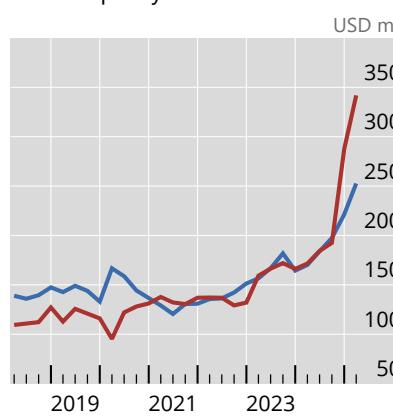
Financial conditions remain benign so far, but financial vulnerabilities remain

Graph 4

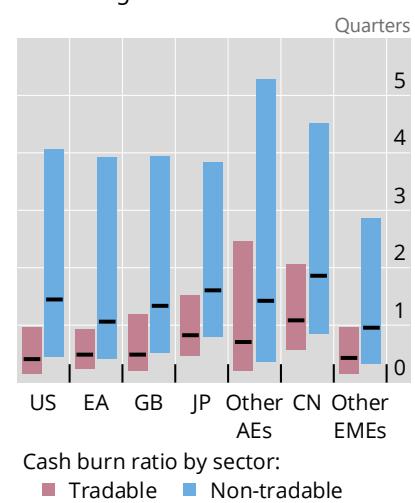
A. Financial conditions remain loose, with strong risk appetite<sup>1</sup>



B. Firms' undrawn credit lines surged as trade policy shifts loomed<sup>2</sup>



C. Firms have limited liquidity cushion against income shocks<sup>3</sup>



<sup>1</sup> FCI is the Federal Reserve Bank of Chicago National Financial Conditions index. FCI shock decomposition is based on the BVAR of Mojon et al (2025) using sign restrictions. Monetary policy (MP) encapsulates the short-term rate and central bank balance sheet size. Risk appetite shocks drive FCI and monetary policy in opposite directions. Demand shocks drive output and monetary policy in the same direction. Supply shocks drive output and inflation in opposite directions. Monetary policy shocks drive FCI/monetary policy in one direction and output/inflation in the other, with a lag. <sup>2</sup> Seasonally adjusted medians. Outstanding credit includes commercial paper, revolving credit and term loans. <sup>3</sup> Cash burn ratio = ratio of cash and cash equivalents to operating expenses, Q4 2024 data. Tradable firms are defined based on Global Industry Classification Standard sectors: energy, materials, industrials, consumer discretionary, consumer staples and information technology. Medians and interquartile ranges across firms. Seven other AEs and 24 other EMEs included.

Sources: Mojon et al (2025); S&P Global Market Intelligence; BIS.

Another supportive financial factor is firms' resilience against higher tariffs. Anticipating the adverse cash flow impact from tariffs and higher policy uncertainty, many firms rushed to secure credit lines in late 2024 (Graph 4.B). This war chest of liquidity provided a cushion for firms to shoulder tariff bills as well as weather future income shocks.

The risk is that the benign financial conditions do not last. Investor risk appetite could buckle as the effects of tariffs grow more apparent, leading to tighter financial conditions. Stretched valuations and existing financial vulnerabilities could aggravate market corrections, particularly if lenders retrench and financial accelerator effects kick in. The squeeze on trade finance and working capital could, in turn, trigger or worsen supply chain disruptions.

helped to boost US GDP in the second quarter, masking softness in domestic demand. Large downward revisions in job numbers for May and June underscore demand weakness.

<sup>8</sup> See Hofmann et al (2020) and Gelos et al (2024).

Firms' liquidity buffers, though boosted by expanded credit lines, are not limitless. Firms in the tradable sector are particularly at risk, given their higher exposure to tariff shocks and usually lower liquidity buffers. In the United States, euro area, United Kingdom and many EMEs, many of these firms would typically not be able to sustain operations for longer than a quarter without new cash flows (Graph 4.C). Undrawn credit provides some protection, but even this could be exhausted in the face of future adverse shocks.

A persistent US dollar depreciation also carries risks. The shock-absorbing function of exchange rates could become impaired, possibly exacerbating the inflationary impact in the United States and disinflationary effects elsewhere. Sustained weakness in the US dollar could also result in portfolio losses for non-US investors, generating negative wealth effects and prompting hedging activities that amplify currency movements (see Shin et al (2025)). As well, continued dollar depreciation could undermine the US dollar's global safe haven properties, with more far-reaching consequences.

## References

- Baker, S, N Bloom and S Davis (2016): "Measuring economic policy uncertainty", *Quarterly Journal of Economics*, vol 131, no 4, pp 1593–636.
- Burgert, M, M Chui, D Gorea and F Zampolli (2025): "Investment in an increasingly uncertain global landscape", *BIS Bulletin*, no 103, June.
- Caldara, D, M Iacoviello, P Molligo, A Prestipino and A Raffo (2020): "The economic effects of trade policy uncertainty", *Journal of Monetary Economics*, vol 109, January, pp 38–59.
- Davis, S J (2016): "An index of global economic policy uncertainty", *National Bureau of Economic Research Working Papers*, no 22740, October.
- De Fiore, F, D Sandri and J Yetman (2025): "Household perceptions and expectations in the wake of the inflation surge: survey evidence", *BIS Bulletin*, no 104, June.
- Gelos, G, P Patelli and I Shim (2024): "The US dollar and capital flows to EMEs", *BIS Quarterly Review*, September, pp 51–67.
- Hofmann, B, I Shim and H S Shin (2020): "Bond risk premia and the exchange rate", *Journal of Money, Credit and Banking*, vol 52, no S2, pp 497–520.
- International Monetary Fund (IMF) (2025): "Global economy: tenuous resilience amid persistent uncertainty", *World Economy Outlook Update*, July.
- Kalemi-Ozcan, S, C Soylu and M Yildirim (2025): "Global networks, monetary policy and trade", *National Bureau of Economic Research Working Papers*, no 33686, April.
- McKibbin, W, M Hogan and M Noland (2024): "The international economic implications of a second Trump presidency", *Peterson Institute for International Economics Working Papers*, no 24-20, September.
- Mojon, B, P Rungcharoenkitkul and D Xia (2025): "Integrating balance sheet policy into monetary policy conditions", *BIS Working Papers*, no 1281, July.
- Rees, D and P Rungcharoenkitkul (2021): "Bottlenecks: causes and macroeconomic implications", *BIS Bulletin*, no 48, November.
- Rodríguez-Clare, A, M Ulate and J Vasquez (2025): "The 2025 trade war: dynamic impacts across US states and the global economy", *National Bureau of Economic Research Working Papers*, no 33792, May.
- Shin, H S, P Wooldridge and D Xia (2025): "US dollar's slide in April 2025: the role of FX hedging", *BIS Bulletin*, no 105, June.
- Zhao, H (forthcoming): "Intermediate goods and economic impacts of tariff shocks", Bank for International Settlements, mimeo.