

# WORLD COMMERCE REVIEW

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GIOVANNI TRIA, PAUL SAMSON  
AND ANGELO FEDERICO ARCELLI  
CONSIDER A NEW 'POLY' GLOBAL  
RESERVE CURRENCY

MICHAEL BARR EXAMINES THE  
ISSUES AROUND ARTIFICIAL  
INTELLIGENCE AND THE LABOUR  
MARKET

A TRADE WAR WOULD  
UNDERMINE AMERICA'S  
INNOVATORS, STEPHEN EZELL  
AND RODRIGO BALBONTIN ARGUE

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# From hegemony to multipolarity

**T**he prevailing global order, often perceived as the culmination of decades of imperial expansion and territorial ambition, is increasingly viewed with scepticism, if not outright disdain. The rules that have underpinned the global economy for over half a century appear to be fracturing. Yet, this period of upheaval should not be mistaken for collapse but rather understood as a profound realignment—a reconfiguration of the structures of globalisation itself.

For more than fifty years, the United States has occupied an unparalleled position in the global economic architecture, importing vast quantities of consumer goods while relying on foreign capital to sustain its persistent trade deficits. Foreign governments, in turn, have amassed trillions in US Treasury bonds, reinforcing the dollar's status as the world's preeminent reserve currency—a phenomenon often described as America's 'exorbitant privilege.'

This privilege, however, is now under strain. The United States' shift towards protectionism and economic nationalism, particularly under recent political leadership, has prompted both allies and adversaries to reassess their dependence on the American economic system.

The resurgence of protectionist policies, most notably through the imposition of tariffs, has eroded confidence in the dollar's dominance and catalysed a reorientation of global trade and financial networks. Longstanding alliances are being recalibrated, established financial norms are under scrutiny, and nations are urgently revising their economic strategies. Far from heralding the demise of globalisation, these developments signal its transformation—a reassembly into a more fragmented yet resilient configuration.

New alignments are emerging as nations seek to mitigate the risks of further disruption. The European Union, China, and India, among others, are forging strategic partnerships to diversify their trade portfolios. The EU, increasingly drawn to a centrally planned economic model, aspires to emulate China's success in fostering innovative, globally competitive industries.

In contrast, the United States continues to champion individualism and market-driven innovation, positioning itself at the forefront of transformative sectors such as generative artificial intelligence, humanoid robotics, space exploration, and medical technology.

The global trade order remains anchored by the United States as the preeminent hegemon, though China's rising influence presents a formidable challenge. Meanwhile, Europe's prolonged economic stagnation contrasts with the dynamism of emerging regions such as India, Southeast Asia, Africa, and Latin America, whose growth is likely to reshape multilateral institutions.

The world may appear to be fragmenting, but this realignment heralds a more robust and multipolar global order—one that reflects the shifting realities of economic power and ambition. ■

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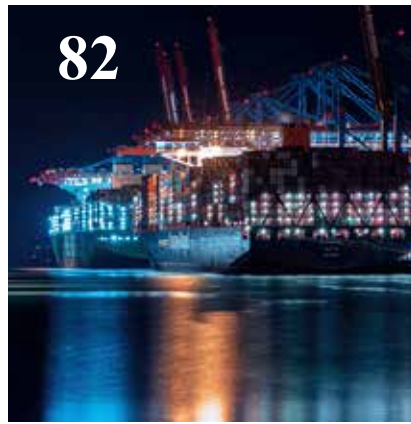
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# A new 'poly' global reserve currency





**The US dollar has dominated global finance for nearly a century. Giovanni Tria, Paul Samson and Angelo Federico Arcelli consider a proposed euro-led 'poly' digital currency basket to complement the dollar, that could help stabilise the monetary system**

**T**he US dollar has served as the cornerstone of the international financial system for nearly a century, anchoring global trade, investment and monetary policy coordination.

It remains dominant in pricing key commodities, such as energy, metals, and agricultural goods, and as the preferred reserve asset and ultimate safe haven for central banks, pension funds and institutional investors worldwide.

Recently, US debt sustainability has made the dollar less attractive, but without compromising its role. And growing discontent among emerging economies and calls for a more multipolar currency system, have not led to a credible alternative matching the combined credibility of scale, convertibility and trust of the dollar.

While the Trump administration still considers it a priority to protect the US dollar's role and benefits – particularly lower borrowing costs and the power to impose economic sanctions with global reach – the same US leadership rejects the reserve currency implications that drive persistent trade deficits and upward pressure on the value of the dollar.

*“This new pooled currency could be a complementary - not competitive - stable alternative to the US dollar, including for settlement purposes. And, if its purpose was also to facilitate international trade, other currencies might be added over time”*

To this end, one Trump administration plan is to increase the demand for dollars through supporting private US dollar denominated stablecoins or crypto currencies as a global means of exchange and reserve value. This is a proposal that the rest of the world would be unlikely to accept at scale, given problems for national and international monetary policy and financial stability.

An alternative BRICs international currency is not feasible under current conditions, but is there another innovative way to improve the stability of the international monetary system by adding a new, complementary global reserve currency that maintains the role of US dollar at the centre?

Although an improbable short-term scenario given the breadth of agreement required, a potential path would be a managed currency agreement between the euro and some other key convertible currencies. Such a process could introduce a new digital currency—the ‘poly’— based on a basket of linked digital currencies. The euro, Canadian dollar, British Pound and Australian dollar digital currencies could become the core of this basket of currencies, and be available globally.

A new poly would be centred on the euro, which already constitutes about 20 percent of the world's foreign exchange

reserves today. The new poly could be formed on a deal between these four free-floating currencies, managed within fluctuation bands.

Such an approach would be like the tried and tested approach of the original Bretton Woods agreement of 1944 and the soft peg to the US dollar until 1971. It would also follow an approach used by the European system and a soft peg to the Deutsche Mark from 1973 until the establishment of the euro in 1998.

This new pooled currency could be a complementary - not competitive - stable alternative to the US dollar, including for settlement purposes. And, if its purpose was also to facilitate international trade, other currencies might be added over time.

A key challenge with the proposal would be the absence, especially in Europe, of a large common debt instrument serving as a safe asset equivalent of the Treasury. However, this might also be a strength from a political point of view, as the US dollar would retain an advantage, with this new proposal of a euro-centred scheme serving as a stability tool and not a competitor.

Markets would likely perceive this new currency to be trustworthy and credible, given the reputation of its members. And since it might take time to scale, it might also be seen as a ‘work in progress’ as was the euro itself for a long period.

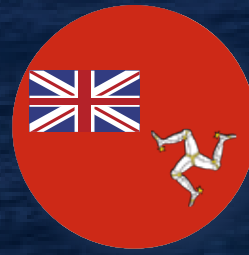
If the poly achieved credibility among central banks, it might become like a new reserve currency, which could potentially lessen some of the main negative implications that the US dollar faces as the dominant currency, mainly the excess global demand for dollars. Since reducing imbalances is a clear priority for the Trump administration, creating this new vehicle could build shared interests and even provide a base for a wider agreement with emerging and developing countries.

The G7 might be the right forum to explore options for a new monetary agenda, taking stock of the current US position and allowing the other partners to consider credible alternatives, not as a competitor to the dollar but as needed sparring partner. Maybe over time, the composition and governance of the G7 itself might need to be updated to reflect more common interests and the need for a more proactive global monetary policy agenda. ■

#### ABOUT THE AUTHORS

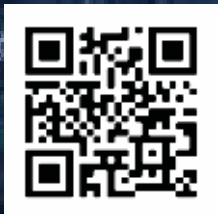
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# Is the international monetary system unfair?

**Agnès Bénassy-Quéré is the Second Deputy Governor of the Banque de France**

**T**he new Trump administration's supposed discontent with the international monetary system – judging by the views of the President's new chief economic adviser (Miran, 2024), – has left experts scratching their heads.

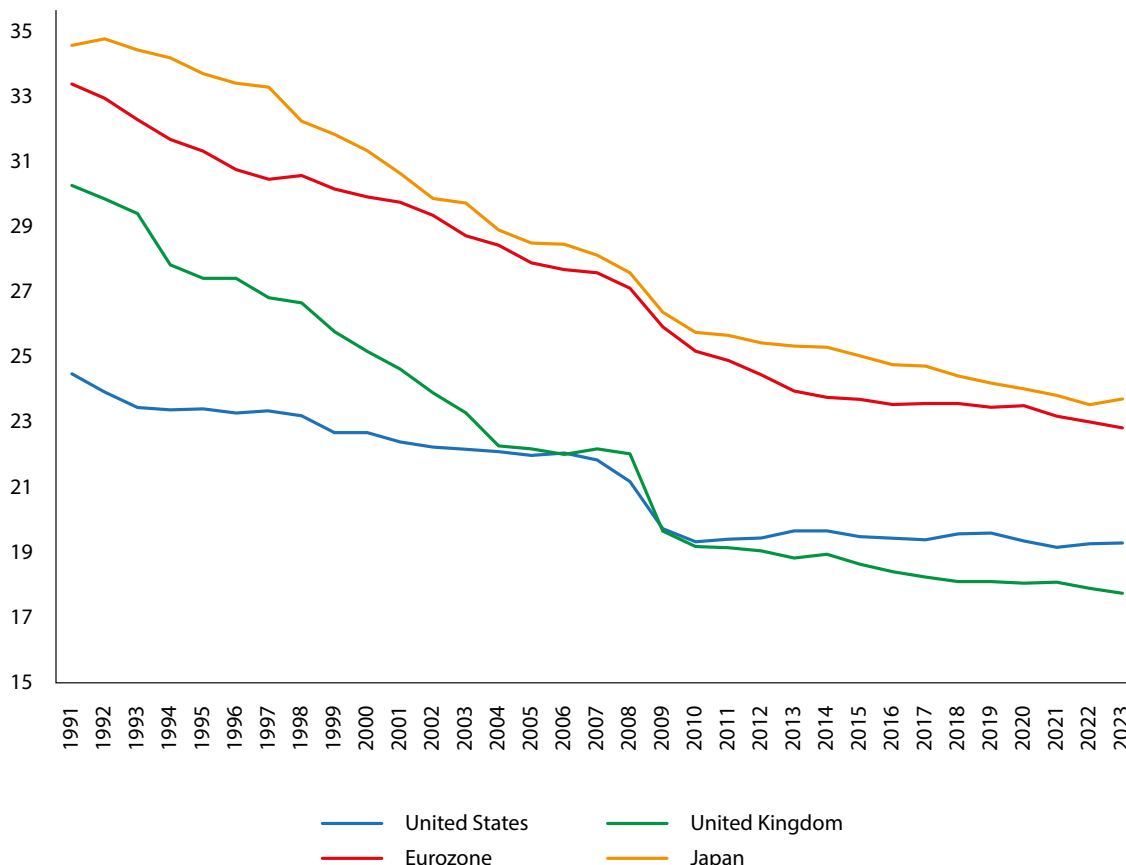
We'd grown accustomed to the dollar's 'exorbitant privilege', as Valéry Giscard d'Estaing famously called it in 1965: the US Treasury provides the rest of the world with a safe, liquid asset, thereby greasing the wheels of global finance, and, in return, on top of the profits from seigniorage (the greenback pays no interest to holders), the United States gets to borrow in its own currency, with no exchange rate risk and at a relatively

low rate given the huge size of its public debt – more than USD 35 trillion at end-2024, or over a third of world GDP.

As Pierre-Olivier Gourinchas and Hélène Rey showed in an article in 2007, the size of the United States' balance sheet makes it the 'banker of the world', and even a venture capital fund, with high-risk, high-yield investments on the asset side, and risk-free, low-yield bonds on the liability side.

In normal times, this is a good position to be in. In times of crisis, however, the value of the nation's assets falls, while the value of its liabilities remains the same. At the time, the authors concluded that the 'exorbitant privilege' went hand in hand

**Chart 1. Industrial jobs as a share of total employment**



Sources: World Labor Organization.

with an 'exorbitant duty' – that of shouldering financial losses during a crisis, in the manner of an insurance firm (Gourinchas and Rey, 2022).

However, over the long term, the yields on the United States' assets exceed the yields on its liabilities, so that its net international investment position (assets less liabilities) falls to a lesser extent than its cumulated trade deficits.

Stephen Miran says this international monetary system is 'unfair' as it supposedly prevents the United States from eliminating its current account deficit. With the American economy now growing more slowly than the rest of the world, due to the rise of emerging economies, global demand for liquid, dollar-denominated assets is increasing faster than US GDP. This strong demand keeps the dollar too high to reduce the massive US deficit, and interest rates too low to discourage private and public US agents from taking on more debt.

The phenomenon is well known. As far back as the 1950s, the Belgian economist Robert Triffin warned of its dangers, pointing out that without any constraints, the United States would inevitably issue too much debt.

In the 1950s, the risk was that this would trigger a gold convertibility crisis, which is precisely what happened in 1971. In a floating exchange rate system, demand can only support the dollar up to a certain level of indebtedness, after which confidence collapses (Fahri and Maggiori, 2017).

Economists usually assess the 'fairness' of a system by looking at how it affects household wellbeing, both in average terms and in terms of the dispersion around the average (inequality). Conventional analysis of the 'exorbitant privilege' would thus find that a dollar-based international monetary system (IMS) delivers long-term net benefits to the United States. By keeping the dollar overvalued relative to the size of America's debt, it supports household purchasing power.

Does deindustrialisation alter this analysis? Admittedly, America's full employment masks a growing scarcity of stable, well-paid 'good jobs'. But there is no guarantee that this is caused by the IMS, as many advanced economies are experiencing the same issue (see Chart 1).

The dollar's international role provides the United States with an excellent tool for exerting global pressure, via financial extraterritoriality – regardless of where a dollar transaction takes place, it is always considered to fall within the scope of US justice. This geopolitical advantage does not translate directly into purchasing power gains, or 'good jobs'. However, even Stephen Miran admits that it is a major advantage in international negotiations.

### **The case against an IMS dominated by the dollar**

In the 2000s and 2010s, critics argued that a dollar-based IMS was unsuited to an increasingly multipolar global economy. In 2009, Governor Zhou (from the People's Bank of China) memorably pointed out that it was impossible for the issuer of an international reserve currency to pursue its own domestic

*"The international monetary system is not 'unfair', or if it is, it is certainly not unfair for the United States. However, certain domestic economic policies are causing large external imbalances. In the short term, only by changing these policies can the United States reduce its external deficits"*

goals while at the same time safeguarding global financial stability.

The solution he proposed was to allow Special Drawing Rights (SDRs), created in 1969, to play a central role in the IMS. The provision of global liquidity would then be divorced from the rate of growth in one country's debt.

Another solution would be to increase the role of other international currencies, alongside the dollar, as this would boost global liquidity volumes without having to rely on a single country. Giving investors a choice of currencies in which to hold liquidity and settle transactions would also force issuers to be more disciplined, and hence mitigate the Triffin dilemma (Farhi, Gourinchas and Rey, 2011).

Japan, the euro area and China have in turn, or in parallel, attempted to boost the international role of their respective currencies, but inertia linked to economies of scale and network effects has maintained the dollar's hegemony.

Developing the euro or renminbi as an international currency would mean issuing a large quantity of homogeneous, liquid and secure assets – the equivalent of US Treasuries – and selling them throughout the financial world. China in particular would need to secure its contract law and completely liberalise capital flows, especially outflows, so that Chinese households could invest their abundant savings abroad while the rest of the world invested in China – it's the difference between these two that makes up China's current account surplus. This seems a rather distant prospect.

The euro is in a better position as the region already has secure contracts and free capital flows. Up to now, the euro's international development has been hampered by its fragmented financial system and the lack of sufficient volumes of a 'safe asset' that could rival US Treasuries. But things could change on both fronts.

Europe has made it a priority to reduce its financial market fragmentation under the Savings and Investments Union

project, which notably includes single market supervision. Moreover, the prospect of a costly rearmament in Europe raises the possibility of a new European debt issue.

In parallel, the existing large stocks of debt in euro issued separately by the European Union (€689 billion), the European Financial Stability Facility (€211 billion), the European Financial Stability Mechanism (€78 billion) and the European Investment Bank (€298 billion) could be combined to create one large pool of safe assets.

Over the longer term, the geopolitical and climate uncertainty could push Europe to finance a growing portion of its public investment jointly, by increasing the European budget and issuing common European debt. The sovereign debt of large euro area countries will also continue to provide a close substitute for a genuine European debt instrument, provided these economies comply with European fiscal rules.

In line with Ragnar Nurkse (1944), a multipolar IMS is sometimes deemed risky, as markets could switch from one currency to another at any time. However, this potential instability in portfolio allocation needs to be weighed against two stabilising factors: a multipolar system would (i) attenuate the Triffin dilemma (thanks to the diversification of liquidity sources); and (ii) provide the US with a deficit-adjustment tool: as the dollar would no longer be the only available reserve currency, it could better play its role as an adjustment variable for the US balance of payments (Bénassy-Quéré and Frouheshfar, 2015).

Charles Kindleberger (1973) introduced the concept of 'hegemonic stability', where a dominant power has an interest in maintaining the status quo and will therefore do everything it can to avoid a crisis. In practice, the US Federal Reserve acts as lender of last resort to the entire world, thanks to standing swap and repo lines with other central banks.

If a country experiences a dollar shortage, the Fed will provide it with dollars for a limited period, in exchange for foreign currencies or the pledging of federal government debt securities as collateral. This solidarity between central banks is essential and worked well during the 2008 financial crisis. However, 'hegemonic stability' failed to prevent the crisis which, as has been well-documented, was rooted in excessive leverage in the US.

### **Could we see a Mar-a-Lago Accord?**

In an essay published in November 2024, Stephen Miran proposes solving the IMS problem, not through structural changes (SDRs, multipolarisation), but with an international Plaza-style agreement. At a famous meeting at the Plaza Hotel in New York in 1985, the United States, Japan, the United Kingdom, West Germany and France agreed to intervene in currency markets to halt the appreciation of the dollar, which had doubled in value in five years.

It was a different time, in the early days of financial globalisation (see the book published by the Peterson Institute to mark the 30<sup>th</sup> anniversary of the Plaza Accord). However, forty years later, Stephan Miran is again proposing lowering the dollar

through coordinated currency market intervention by foreign central banks.

To achieve this while at the same time securing funding for the budget deficit, he suggests partly offsetting coordinated dollar sales with purchases of very long-term bonds (100 years), or even perpetual bonds. He also suggests using trade tariffs to force other countries to agree.

Richard Nixon already used tariffs in 1971 to force US trading partners to revalue their currencies. Miran concedes that if other countries fail to comply immediately, higher tariffs could cause the dollar to rise; but this, he says, would only be temporary, and the ultimate goal is a weaker dollar, which would then replace the tariffs previously put in place.

Alternatively, he suggests charging a 'user fee' on foreign holdings of US Treasury bonds, which, on the plus side, would bring in revenue and immediately lower the dollar, but on the downside would push up market interest rates while also being easy to circumvent (see McCauley, 2025).

In addition to the doubts raised about the Plaza Accord's actual impact on the dollar (the dollar had started to depreciate even before the Accord on 22 September 1985), the agreement left some US trading partners with painful memories. Japan had to repatriate huge amounts of savings that had been invested in the United States. The influx of capital led to a financial and property bubble, which then burst in the early 1990s, plunging Japan into long decades of deflation.

Assuming the United States actually manages to persuade its partners to repeat the experience, what might we expect? The results of research on foreign exchange interventions are hardly encouraging. The effects on currency levels in advanced economies are almost never long lasting, especially when the intervention is inconsistent with monetary policy.

Without a change in macroeconomic policies, and hence in expected yield spreads, a cheaper dollar would encourage private investors to increase their holdings, rapidly pushing the currency back up to where it was before the exchange rate agreement – especially if higher tariffs raise expectations of a dollar appreciation.

But central banks are now independent and have a clear mandate to fight inflation. They will therefore remain focused on inflationary risks in their own country or region, so the idea that there could be lasting reversal of exchange rates following an international currency agreement is highly speculative.

### **Rebalancing current accounts**

While the prospect of an international agreement on exchange rates seems highly uncertain, the imbalances in national current accounts are indeed very real. Whether or not they are cause for concern is open to debate, especially for an economy that borrows in its own currency. But the fact is that the new Trump administration seems particularly concerned about the country's external deficits. How can they be reduced?

Import tariffs are clearly not the right approach. As shown by Estefania-Flores *et al* (2022), protectionism reduces trade flows, GDP, investment and productivity, but has no impact on the trade balance. Charging different rates to different trading partners, as the new administration is seeking to do, is even less effective, as trade is simply rerouted via 'connector countries', allowing it to enter the United States at lower tariffs (Alfaro and Chor, 2023).

In reality, external imbalances primarily reflect macroeconomic imbalances, so cutting them up into bilateral balances does little to resolve them:

- **The US deficit** is due to an excess of expenditure (consumption and investment) over income (GDP). A large share of this excess stems from the budget deficit. Based on a sample of 193 countries over the 1980-2016 period, Afonso *et al* (2022) estimate that, all other things being equal, a rise of 1 percentage point of GDP in the budget deficit widens the current account deficit by between 0.29 and 0.45 percentage point of GDP, confirming the twin deficit hypothesis.
- In the same way, **China's surplus**, to take this as an example, is caused by insufficient expenditure relative to

GDP. Although it has fallen recently, China's gross saving ratio remains very high by international standards, at 34% of disposable income in 2023, compared with 11% in the United States.

While recognising the need to increase social protection to reduce Chinese households' need for precautionary savings, China is continuing to prioritise the development of its productive apparatus. Yet the steady fall in Chinese producer prices suggests the country has excess production capacity, although weak corporate profits are doing nothing to slow investment growth.

Ultimately, the international monetary system is not 'unfair', or if it is, it is certainly not unfair for the United States. However, certain domestic economic policies are causing large external imbalances. In the short term, only by changing these policies can the United States reduce its external deficits.

The dollar could then adjust endogenously rather than via some hypothetical international currency accord. It should be noted, however, that although it would help to balance the current account, a depreciation of the dollar would weigh on US household purchasing power. ■

*This article is based on a piece published on the Banque de France website, 19 March 2025.*





# Lessons from the history of international currencies

**Christine Lagarde is the President of the European Central Bank**

**O**ver the past 80 years the global economy thrived on a foundation of openness and multilateralism – underpinned by US leadership. By championing a rules-based international system and anchoring the dollar as the world's reserve currency, the United States set the stage for trade to flourish and finance to expand.

This global order proved immensely beneficial to the European Union, whose founding liberal principles aligned seamlessly with it. But today it is fracturing. Multilateral cooperation is being replaced by zero-sum thinking and bilateral power plays. Openness is giving way to protectionism. There is even uncertainty about the cornerstone of the system: the dominant role of the US dollar.

All else equal, this fracturing can pose risks for Europe. Our economy is deeply integrated into the global trading system, with exports accounting for close to one-fifth of our value added and supporting 30 million jobs. Any change in the international order that leads to lower world trade or fragmentation into economic blocs will be detrimental to our economy.

But – with the right policy responses – there could also be opportunities. The changing landscape could open the door for the euro to play a greater international role. Today, the euro is the second global currency, accounting for around 20% of foreign exchange reserves, compared with 58% in the case of the US dollar. Increasing the international role of the euro can have positive implications for the euro area.

It would allow EU governments and businesses to borrow at a lower cost, helping boost our internal demand at a time when external demand is becoming less certain. It would insulate us from exchange rate fluctuations, as more trade would be denominated in euro, protecting Europe from more volatile capital flows. It would protect Europe from sanctions or other coercive measures.

In short, it would allow Europe to better control its own destiny – giving us some of what Valéry Giscard d'Estaing called the 'exorbitant privilege' 60 years ago. So, how likely is this change to happen? History suggests that it is far from guaranteed. The euro will not gain influence by default – it will have to earn it.

For the euro to increase its global status, history tells us that we need to build on three foundations – each of them critical for success. First, Europe must ensure it has a solid and credible geopolitical foundation by maintaining a steadfast commitment to open trade and underpinning it with security capabilities.

Second, we must reinforce our economic foundation to make Europe a top destination for global capital, enabled by deeper and more liquid capital markets. Third, we must bolster our legal foundation by defending the rule of law – and by uniting politically so that we can resist external pressures. Before we explore each of these three foundational components, let us observe what recent history can teach us.

## **Shifts in the global currency landscape**

Shifts in the global currency landscape are not unprecedented in monetary history. There have been previous episodes where the world's leading reserve currency issuer has taken steps that have called that leadership into question, without ultimately jeopardising it.

For example, the US dollar took over from the pound sterling as the world's leading reserve currency in the mid-1920s, with its share in foreign exchange reserves rising to 64% by 1931. But this leading position did not stop the United States taking measures to unilaterally change the international monetary order.

For instance, in 1933 President Roosevelt suspended gold convertibility to fight the deflationary forces of the Great Depression. He dismissed European demands for fixed exchange rates with the argument that *"the sound internal economic system of a nation is a greater factor in its well-being than the price of its currency."*<sup>1</sup>

Then again in the 1970s President Nixon ended the Bretton Woods system by unilaterally suspending dollar convertibility to gold and imposing a 10% import tariff.

Faced with growing imbalances between US current account deficits and the surpluses of western Europe and Japan, Treasury Secretary John Connally declared that *"no longer can considerations of friendship, or need, or capacity justify the United States carrying so heavy a share of the common burdens."*<sup>2</sup>

On both occasions, there was a decline in the standing of the US dollar as a foreign reserve currency. In the 1930s, it fell from over 60% to around 20% of global foreign exchange reserves. In the 1970s, it fell from about 70% to 50% two decades later.

But on neither occasion was there a robust alternative currency that could take over at short notice. In the 1930s, the pound sterling was already declining, while in the 1970s the Deutsche Mark and the Yen were backed by markets that were too small. So, instead, investors flocked to gold. The share of gold in foreign reserves increased by about 20 percentage points in the 1930s to 97% and almost doubled to 60% in the 1970s<sup>3</sup>.

Today, there is a key difference compared with previous eras. With the euro as the world's second-largest currency, there is another international currency alongside the dollar. But this has not yet convinced investors.

Over recent years, the dollar's share in global foreign exchange reserves has fallen, with its current level of 58% being the lowest since 1994. In parallel, central banks have been accumulating gold at a record pace – almost matching the levels seen during the Bretton Woods era<sup>4</sup>. The share of gold in global foreign reserves<sup>5</sup> has reached around 20%, surpassing that of the euro<sup>6</sup>.

As previously mentioned, we can identify three essential foundations for international currency usage, without which a currency cannot succeed on the global stage. And in each case, we can see that Europe has many of the key ingredients for success, but we need to bring them together to reinforce the foundations. Action is in order.

### **The geopolitical foundation**

The starting point is a credible geopolitical foundation – which rests on both a country's role in global trade and the strength of its military alliances. A currency's exposure to trade is especially important, as it provides the initial pathway to wider international use.

In the mid-1920s, for example, the dollar overtook the pound sterling as the leading form of trade credit before it became the leading reserve currency<sup>7</sup>. Once a currency captures a larger share of trade invoicing, its role in international banking and finance, and ultimately as a reserve asset, becomes self-reinforcing. Higher demand for the currency enhances its role as a store of value and further encourages investors to hold it<sup>8</sup>.

As a major actor in global trade, Europe already has a key ingredient of a strong geopolitical foundation, creating the potential for a virtuous circle of euro internationalisation to unfold. The EU has the largest network of trade agreements in the world. Europe is the number one trading partner for 72 countries, which together represent almost 40% of world GDP<sup>9</sup>.

And this status is reflected in the share of the euro as an invoicing currency, which stands at around 40%, more than double its share as a reserve currency. Europe can press home this advantage by continuing to forge new trade agreements.

*“Any change in the international order that leads to lower world trade or fragmentation into economic blocs will be detrimental to our economy”*

And we should make clear that we support a win-win approach to trade, ensuring that we are the most attractive partner to make deals with.

The ECB can also help make the euro more attractive for euro-denominated trade. We are working on a potential digital euro and pursuing initiatives to enhance crossborder payments in euro, which could potentially facilitate international crossborder transactions in the future.

And by extending swap and repo lines to key partners, we safeguard against euro liquidity shortages abroad disrupting the smooth transmission of our monetary policy – which in turn encourages those partners to transact more in euro.

But there is a limit to how much a currency can grow simply by virtue of being open to trade. In fact, the euro's share of global export invoicing is already as large as that of the US dollar, but we are not closing the gap in reserve currency status.

This is because investors – and especially official investors – also seek geopolitical assurance in another form: they invest in the assets of regions that are reliable security partners and can honour alliances with hard power. So a credible geopolitical foundation must also rest on robust military partnerships.

This dual strength is essentially what we can learn from the US dollar's dominance. It is not just a product of economic fundamentals, but it is also powerfully reinforced by US security guarantees. These guarantees not only deepen trade ties<sup>10</sup> but have been shown to boost a currency's share in foreign reserves by up to 30 percentage points<sup>11</sup>.

We are now seeing a major shift in Europe towards rebuilding our hard power, with important initiatives underway at the national and EU levels. And we should be clear that following through with this effort is a precondition for the euro to become more widely used.

### **The economic foundation**

Trade and military power are important for establishing demand for an international currency. But to satisfy this demand, investors need appropriate assets to invest in. This is why a strong economic foundation – one that provides opportunities for growth and opportunities to invest in growth – is equally essential.

There is a virtuous circle between growth, capital markets and international currency usage. Growth generates robust

rates of return, which make investors want to hold assets in a particular currency. And capital markets provide investment opportunities and channel funds back into growth.

At the same time, if capital markets provide a sufficient supply of 'safe assets', investors can hedge their exposures efficiently. When a shock hits and riskier investments lose value, safer assets rise in value. That provides a complete ecosystem for investments in the currency.

The US dollar's rise to dominance in the interwar period was certainly driven by this virtuous circle. The development of US capital markets boosted growth – with each 1 percentage point increase in market capitalisation yielding 0.5 percentage points more growth<sup>12</sup> – while simultaneously establishing the foundation for dollar dominance.

The depth and liquidity of the US Treasury market in turn provided an efficient hedge for investors. Europe has all the elements it needs to produce a similar cycle. But so far, we have not been able to put all the pieces together.

Despite our large single market, we have fallen behind the US in terms of growth performance and market returns. Since 2000, US labour productivity per hour has grown twice as much as in the euro area, mainly driven by the tech sector, and US markets have delivered returns that are around five times as high as those of European markets<sup>13</sup>.

Despite our large savings, we have made little progress in integrating our capital markets to channel more of our funds into growth. 60% of household equity investment goes into home country markets even though there may be greater opportunities abroad.

And despite our strong aggregate fiscal position – our debt-to-GDP ratio is 89%, compared with 124% in the United States – we provide relatively few safe assets. Recent estimates suggest that outstanding sovereign bonds rated at least AA are just below 50% of GDP in the EU and above 100% in the US<sup>14</sup>.

The conclusion for Europe is clear: if we truly want to see the global status of the euro grow, we must first reform our domestic economy. That means moving forwards with the priorities identified in recent reports: completing the Single Market, enabling start-ups, reducing regulation and building the savings and investment union.

And it means avoiding a piecemeal approach, where we make progress where it is easy and dither where it is hard, else we will never kick-start the positive cycle.

Moreover, in this new geopolitical landscape, the case for acting in a European way has never been stronger. Each individual country of course needs to make sure that its national policies support growth. But we also need to be mindful of self-defeating fragmentation.

For example, we all agree that Europe needs to build up its strategic industries to avoid excessive dependencies – as

Mario Draghi and Enrico Letta emphasised in their recent reports. But we will not succeed if we have 27 different policies for these industries.

Nowadays there are also more policy goals that qualify as European public goods, notably strengthening European defence. But due to the free-rider problem, defence is a good that is likely to be undersupplied.

Moreover, joining forces to procure equipment and develop new technologies – leading to economies of scale and more interoperability – will result in greater operational effectiveness than if all 27 member states go it alone.

Economic logic tells us that public goods need to be jointly financed. And this joint financing could provide the basis for Europe to gradually increase its supply of safe assets.

### **The legal foundation**

Geopolitical strength and faster growth can go a long way towards strengthening the euro's international role. But maintaining demand for the currency will also depend on our ability to uphold a robust legal and institutional foundation.

Ultimately, currencies achieve and maintain their reserve status if the institutions and policies backing them consistently safeguard investor confidence in their long-term value<sup>15</sup>. For example, historically, the US dollar's pre-eminence has rested on the strength and stability of US fiscal and monetary institutions.

The Federal Reserve System's credible commitment to controlling inflation, combined with the unparalleled liquidity of the US Treasury market, created a perception of minimal sovereign risk.

This made the dollar a safe haven during global economic turbulence and recessions<sup>16</sup>. Since 1970, there have been 34 instances of simultaneous sovereign debt and financial crises globally, but the US has remained immune to such 'twin crises'<sup>17</sup>.

However, when doubts emerge about the stability of the legal and institutional framework, the impact on currency use is undeniable. These doubts have materialised in the form of highly unusual cross-asset correlations since 2 April this year, with the US dollar and US Treasuries experiencing sell-offs even as equities fell.

The same doubts are also cited by investors who are turning to gold: two-fifths say they are doing so as a hedge against rising geopolitical risk<sup>18</sup>.

Given this context, the EU has a legitimate reason to turn its commitment to predictable policymaking and the rule of law into a comparative advantage. This commitment is baked into how the EU works.

The positive side of our often slow and complicated decision-making processes is that checks and balances are always respected. We have also enshrined into law the independence

of our key institutions, like the ECB, in ways that are hard for politicians to threaten.

But relying on the fact that our bureaucratic systems are hard to change is not enough. In the current geopolitical environment, we are facing increasing external pressures to take actions that jeopardise the rule of law. And we will only be able to resist these pressures if we are more politically united and able to speak with a single voice.

As we potentially enter a renewed era of great power rivalry, with countries being asked to take sides, we are likely to find ourselves under pressure to make decisions that are not necessarily in our own interest.

But if we take this opportunity to unite and, preferably, to reform our institutional structure by enabling more qualified majority voting in areas where a single veto has often held back the collective interests of the 26 other countries, that

would enable us to act decisively as a united Europe. We would then be in a much stronger position to defend and uphold our values and, as a result, to defend and uphold global confidence in our currency.

### Conclusion

In the history of the international monetary system, there are moments when the foundations that once seemed unshakeable begin to shift. The Belgian-American economist Robert Triffin described this with great clarity. He observed that nations' confidence in the international monetary system depends on the reliability of the reserve currency, which, in his words, is *"highly dependent on individual countries' decisions."*

But moments of change can also be moments of opportunity. The ongoing changes create the opening for a 'global euro moment'. This is a prime opportunity for Europe to take greater control of its own destiny. But this is not a privilege that will simply be given to us. We have to earn it. ■

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This article is based on a speech delivered at the 'Europe's role in a fragmented world' event organised by the Jacques Delors Centre at Hertie School in Berlin, Germany, Berlin, 26 May 2025.



# Challenges of the G20

**Lesetja Kganyago is the Governor of the South African Reserve Bank**

**T**he focus of this article is the Group of Twenty (G20), for which South Africa currently has the presidency. As you will all know, the G20 started in the 1990s as an informal arrangement for discussing macroeconomic developments and financial stability.

It was designated the premier forum for international economic cooperation during the Global Financial Crisis (GFC)<sup>1</sup> and, at the time, it proved this status was well deserved<sup>2</sup>. It did this by demonstrating two great strengths.

First, unlike the Group of Seven, it brought together all the major economies, not just the richer ones. This balanced participation made it a genuinely global institution. Second, it was just small enough that it could act decisively.

In the years since the GFC, the G20 has worked on many important issues, with some real successes. The global regulatory reform agenda stands out as perhaps one of the most significant achievements of the G20. Today we can say the core of the global financial system is more resilient than it was during the GFC.

The G20 has demonstrated its value during crises, most notably at the onset of the COVID-19 pandemic, where it served as a central forum for coordinating responses and mobilising finance.

It has strengthened the global financial safety net, with a better-resourced International Monetary Fund at its centre, and has facilitated expanded resource commitments for the multilateral development banks.

In 2020, the Debt Service Suspension Initiative helped create fiscal space for poor countries at a moment of great peril. The Common Framework that grew out of this is still the most promising mechanism available for working out unsustainable sovereign debts.

It is a testament to the G20's value that even now, at a time of extraordinary global change, all its members agree about its importance, and all of them are committed to continuing its work.

At the same time, I think we are all in agreement that the G20 faces many challenges. I would like to discuss some of them

today as a prelude to the discussion to come. I hope you will forgive me for focusing today on how process subverts better policy formulation, but I believe this is a serious concern and detracts from what the G20 might achieve.

Let me start by drawing attention to the need for more focused agenda-setting, supported by better processes. From a very operational perspective, G20 meetings are large. There is a rule of thumb, sometimes called Parkinson's law<sup>3</sup>, that the maximum size of an effective committee is around 20 participants. Once you get past that threshold, it seems to become difficult to make decisions efficiently.

It would seem that an organisation called the G20 would be perfectly designed for satisfying Parkinson's law. But, in addition to the G20's 21 members, we also have a roster of invited countries and many international organisations. Counting in these invited participants, we had a total of 52 countries and institutions at our recent Finance Ministers and Central Bank Governors meeting in Cape Town.

In this context, it can be challenging to have spontaneous conversations and robust debates. One high-level observation is that the G20 functions best in a global crisis. Minds are focused and participants move quickly to find each other in identifying root causes, analysing options and defining the path forward. I think of the meetings of Washington in 2008, London in 2009, and Toronto and Pittsburgh in 2010 as exemplars.

Once we are no longer in the throes of a crisis, it becomes harder to find purpose. When we say, for instance, that the G20's relevance is fading, I think we mean that the agenda, always rich in topics, is overloaded and too complex.

While there are many agenda items suitable for reasoned, technocratic discussions, such as improving payment systems or helping heavily indebted poor countries, the G20 cannot effectively address itself to all of them.

Against this, the G20 has powerful mechanisms for adding issues to its agenda. Each year, we have a new presidency, and each presidency wants to make its mark by putting new issues on the table. This means we add more than we subtract. Because the G20 is powerful, prestigious and global, it is tempting to bring it all the problems of the world.

It does not follow, however, that, just because something is important, it should be on the G20's agenda. There are many important issues for which the G20 is not the right forum.

So, we should be more intentional in how we choose which issues to discuss – especially when the world is in between crises. Narrowing the G20's scope might also make for more focused discussions that say something more meaningful about the top two or three priorities chosen each year.

Keeping those priorities central to our discussions would also encourage a better kind of engagement – more intimate conversations that help participants find each other and craft common views.

In the end, with too much content and not enough conversation, our messaging and communication becomes loaded with vague 'priors' rather than more concrete solutions. We tend to sacrifice clarity and purpose in favour of finding relevance among only the most specialist audiences.

Refocusing on solutions would help to avoid falling into the trap of drafting long and formulaic communiqués. Finally, we would do better by having shorter statements, written in plain language.

Of course, it is easier to communicate when you have clear decisions to share. The path here is to zero in on our inherently common challenges and then to work harder, partly with better agenda-setting, to develop common views. In its early years, the G20 worked well for economic and financial stability issues. We need to preserve that focus and enhance it.

Another way of doing this could be to separate the various tracks, making them more distinct from one another, creating the space for the principals of the G20 Finance Track to focus, in part, on defining the agenda. Such a step might also mean rethinking the structure of the Finance Track itself and of its multiple working groups and their processes.

It has also been suggested that we should establish a permanent G20 secretariat. There are obstacles to this, including who hosts it, who gets which roles and who foots the bill. We would have to be very disciplined about keeping it small, meritocratic and well governed.

*“The global regulatory reform agenda stands out as perhaps one of the most significant achievements of the G20. Today we can say the core of the global financial system is more resilient than it was during the GFC”*

That said, establishing a secretariat for each track might address the problem that each year a new country assumes the presidency, puts in a huge effort and financial resources to learn the ropes, and then, just as it starts to really understand the system, its term is over and someone else starts all over again.

I cannot say I'm convinced a secretariat for each standalone track is a good idea, but maybe it is better than what we have now. It would be great to hear other suggestions.

To conclude, one of the best parts of the G20 is building relationships and social capital through meeting regularly. In doing so, we enhance our ability to cooperate in crises, gaining perspective and defining better, sustainable solutions.

Such a dynamic and engaged process is arguably even more critical now as the global community feels its way into a new era. It is in these times that we will find it harder to agree, and it therefore becomes more important to hear each other and seek to redefine our common interests. That there may be contestation over certain topics and how to approach them is a positive outcome of the G20, not a weakness. This is where value we add should, in fact, be found.

The G20 remains the premier forum for international economic cooperation, and should not have to be reinvented for every crisis. There is no doubt that global cooperation is difficult, even in less crisis-prone times. But the alternatives are worse. And the G20 could, with concerted effort, reach its previous levels of excellence. ■

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*The G20 comprises 19 countries plus the African Union and the European Union (EU) (with the European Central Bank, European Council and European Commission being counted with the EU, not separately). The 10 invited countries were Egypt, Ireland, Netherlands, Norway, Nigeria, Singapore, Spain, Sweden, Switzerland and the United Arab Emirates. The 21 international organisations included one regional organisation, the Southern African Development Community.*

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# Harnessing the digital future of payments

**Piero Cipollone is a Member of the Executive Board of the European Central Bank**

**M**ost people associate the adoption of the euro with the launch of euro banknotes and coins. While the euro was introduced for accounting purposes in 1999, we tend to feel it only became our money three years later once we started paying in euro cash around Europe. Euro banknotes and coins made the currency the tangible symbol of a united Europe.

A strong currency also comes in tandem with strong payment systems. We offer payment infrastructures that form the plumbing of the financial system. Though less visible than banknotes and coins, these infrastructures are key to our monetary and financial integration.

Retail and wholesale payments are hence an integral part of our tasks at the central bank. We issue cash, supply reserves – the ultimate liquid asset – to banks and operate payment systems, thereby supporting our economy by enabling euro area transactions that are secure, risk-free and European. This is what preserves our economic stability and our monetary sovereignty.

Building on this reliable base, private sector firms can then offer their own solutions, without their customers having to worry about the money they use. One euro is one euro, because private money can be converted to cash at all times and because financial transactions can be settled in central bank money – the only risk-free asset there is.

So I want to focus on how we can make our currency future-proof and enhance the integration, competitiveness and resilience of European payments in the digital era.

As people increasingly prefer to pay digitally and online commerce expands, the role of cash as a universal payment solution is declining. We thus risk being left without a European solution that allows us to pay throughout the euro area in all situations. To restore the central role of cash, we need to complement physical cash with its digital equivalent, a digital euro.

Making central bank money available in digital form might seem like a small and obvious step, but it is in fact an essential one for overcoming the entrenched and longstanding fragmentation of our payment market. The digital euro will achieve this directly by modernising the supply of

public money and indirectly through its infrastructure and acceptance network, which private payment service providers can leverage to expand and innovate on a European scale.

Ultimately, a digital euro will enhance the competitiveness of European providers and their ability to offer all types of digital payments to European consumers.

The situation is different for wholesale financial transactions as we already offer settlement in digital central bank money and do not face the same dependencies. However, market participants increasingly expect that tokenisation and distributed ledger technology (DLT) will transform financial transactions by enabling assets to be issued or represented as digital tokens.

We are currently expanding our initiative to settle DLT-based transactions in central bank money. By making central bank money available, we avoid the risk of other settlement assets being used, such as US dollar stablecoins, which would reintroduce credit risk, fragmentation and a dependency on non-European solutions.

We are progressing on the retail and wholesale fronts in parallel. In both cases, Europe needs its own, sovereign money for the digital era, so that it can harness the benefits of integration, innovation and independence. In the words of the late French economist Michel Aglietta, money is not just a technical device, it is an essential institution<sup>1</sup>.

## **A digital euro for everyday payments**

Let me first discuss the rationale for the digital euro and the benefits it will bring. Currently, cash is the sole sovereign payment method across the euro area. It offers Europeans a convenient, secure and universally accepted way to pay and store value, ensuring financial inclusion. Cash also upholds the resilience of our payment systems and economies, acting as a reliable fallback during crises such as cyberattacks or power outages. This is why we remain strongly committed to cash<sup>2</sup>.

However, digital payments have gained popularity, with online shopping accounting for more than a third of our retail transactions. This means that acceptance of and access to cash are no longer sufficient to cover a growing share of payment situations. In value terms, cash payments made up only 24% of day-to-day payments in the euro area last year<sup>3</sup>.

Lacking a genuine European payment solution that works across the euro area, we are left critically dependent on foreign payment providers<sup>4</sup>. Currently, nearly two-thirds of euro area card-based transactions are processed by non-European companies while 13 euro area countries depend entirely on international card schemes or mobile solutions for in-store payments<sup>5</sup>. And even where national card schemes are available, they require co-badging with international card schemes to facilitate crossborder payments within the euro area or online shopping.

Moreover, mobile apps and e-payment solutions are dominated by foreign solutions like PayPal, Apple Pay or Alipay. And they partner with international card schemes to further reinforce their position and expand their reach: PayPal has just announced that it will start enabling contactless payments in Germany, using Mastercard technology<sup>6</sup>. Looking ahead, our dependency could soon extend to foreign stablecoins, 99% of which are dollar-denominated in terms of total value<sup>7</sup>.

As a result, European payments face three significant challenges. First, we need to ensure our strategic autonomy and monetary sovereignty. Our overreliance on foreign payment providers makes us dependent on the kindness of strangers at a time of heightened geopolitical tensions. I trust that this risk is well understood in the country of De Gaulle.

There is no true sovereignty without sovereign money<sup>8</sup>. As my dear colleague Banque de France governor François Villeroy de Galhau has remarked, this is as true in the 21<sup>st</sup> century as it was in the past<sup>9</sup>.

Second, we should simply ask ourselves why there is no Europe-based international card scheme. I would say it's because we suffer from a lack of competitiveness and innovation. European payment service providers focus on their home country and struggle to compete on a European level, let alone on a global one, limiting their ability to drive large-scale innovation. The cost of investing in a European-wide acceptance network has often discouraged European payment service providers from offering a European card payment solution.

These failures come at a high price: the dominance of non-European providers stifles competition, leading to higher costs for merchants and consumers. And when transactions are conducted through international card schemes, European banks lose fees. When transactions are made on apps such as Apple Pay or PayPal, they lose fees and data. And if the use of US dollar stablecoins becomes more widespread, the banks could lose, fees, data and deposits.

Third, user experience is still poor for Europeans, who juggle multiple payment solutions to meet various needs. Despite the euro's 25-year legacy, we still lack a digital payment solution that can be used across all euro area countries.

By introducing the digital euro, we aim to tackle these challenges head-on. Importantly, the digital euro would make payments more convenient. It would provide a digital payment method that complements cash, extending its

*“Ultimately, a digital euro will enhance the competitiveness of European providers and their ability to offer all types of digital payments to European consumers”*

benefits into the digital realm. For instance, it would have legal tender status, meaning that it would be accepted wherever one can pay digitally.

And it would also be available offline, offering users similar privacy to paying with cash and allowing them to pay even in the absence of a network connection. A digital euro would give European consumers a simple and safe digital payment option, free for basic use, that covers all their payment needs everywhere in the euro area.

In fact, one simple reason for introducing the digital euro is that people want it. Even at this early stage, surveys show that close to half of respondents would be likely to use the digital euro – a number that has significantly increased over time<sup>10</sup>.

This trend is confirmed by several surveys<sup>11</sup> conducted by national central banks which suggest that many Europeans are open to the idea of using a digital euro.

Launching the digital euro would also ensure that the euro area retains control over its financial future. By offering a secure and universally accepted digital payment option which would be suitable for all use cases – and, crucially, under European governance – it would reduce our dependence on foreign providers. This would protect European merchants from excessive charges, strengthening their bargaining power with those providers and offering an attractive alternative<sup>12</sup>.

At the same time, European banks would be able to retain their customer relationship and be remunerated for their role in distributing the digital euro. And the digital euro would limit the likelihood of foreign currency stablecoins becoming widely used for retail payments within the euro area.

Moreover, the digital euro would be based on a core public-private partnership that would leverage synergies, enabling private initiatives to scale up across the euro area. For instance, domestic card payment solutions could co-badge with the digital euro to cover transactions currently beyond their reach.

At the same time, banks' wallets and internet banking solutions could integrate the digital euro as an alternative way to pay that is accepted throughout the euro area and supports both contactless and QR-based payments<sup>13</sup>.

The open digital euro standards – which can be finalised as soon as the regulation on the digital euro is adopted and can start being used even before the digital euro is issued – would





facilitate cost-effective standardisation, allowing private providers to launch new products and functionalities on a European scale.

This would unlock innovation and create new business opportunities. In fact, research shows that stock prices of European payment firms increase in response to positive announcements on the digital euro, whereas those of US payment firms decrease<sup>14</sup>.

Last October we issued a call for expressions of interest in innovation partnerships for the digital euro. Some 70 merchants, fintech companies, start-ups, banks and other payment service providers – including four from France<sup>15</sup> – have now joined us in exploring the potential of the digital euro to drive innovation<sup>16</sup>.

Our innovation platform simulates the envisaged digital euro ecosystem, in which the ECB provides the technical support and infrastructure for European intermediaries to develop digital payment features and services at European level. One of the areas we are exploring is broadening the set of possible conditional payments, such as making payments dependent on successful delivery of goods or services.

In July we will release a report on these innovation partnerships. It will include the technical information shared with the participants, enabling the entire market to replicate these activities, thereby further supporting innovation by the private sector.

Additionally, based on the positive feedback from the pioneers, we will extend the exercise until the end of June, which will allow us to test new functionalities of conditional payments, incorporating fresh ideas and suggestions from our private sector counterparts.

The digital euro's success in reclaiming our autonomy in the retail payment space and boosting innovation capacity hinges on collaboration. In recent years we have engaged extensively with market stakeholders, gathering input from consumers, merchants, banks and payment service providers. We have also started working with market participants on the digital euro rulebook – a single set of rules, standards and procedures for digital euro payments<sup>17</sup>.

This inclusive approach helps us to address everyone's needs and perspectives, crafting a robust payment solution and platform that will benefit all Europeans, support private sector innovation and preserve the future of our money – the euro.

## The role of central bank money in shaping a European market for digital assets

Let me now turn to wholesale transactions, a domain where technology holds tremendous potential for transformation. Currently, we facilitate transactions between financial institutions through our TARGET Services: T2 processes over 90% of large payments, while T2S handles securities transactions.

These services have significantly enhanced the efficiency and integration of post-trade platforms in Europe. And we plan to continue improving them: in 2023 we extended T2 operating times to 22.5 hours on weekdays and we are about to launch a consultation paper investigating stakeholder needs and their interest in a further extension of operating hours.

In a month's time we will also launch the European Collateral Management System, which will provide a single, harmonised framework for handling collateral in the 20 euro area countries<sup>18</sup>. And in October 2027 we will move to T+1, shortening the settlement cycle from two days to one.

Meanwhile, emerging technologies such as DLT and tokenisation have the potential to bring about a step change in wholesale markets. These technologies are no incremental improvement: they represent a fundamentally new way of operating by allowing assets to be issued or represented in digital token form. This innovation would enable market participants to manage trading, settlement and custody on a single platform, available 24/7, 365 days a year.

It would also synchronise trading and settlement. And it would enable new business models, as tokenised money can be used to automate conditional transactions. DLT and tokenisation could also reduce the cost and barriers to access capital markets, in particular for small and medium-sized enterprises.

In fact, the emergence of these new technologies is an opportunity to establish an integrated European capital market for digital assets from the outset – a digital capital markets union – which would contribute to better channelling

our savings into productive uses and boosting Europe's innovation potential<sup>19</sup>. It could help European capital markets to become a hub for DLT-based financial services.

European banks are active in this space, with over 60% exploring or using DLT and 22% already implementing DLT applications. On the securities front, there is a growing number of high-profile issuances on DLT.

The availability of central bank money for settling transactions using these new technologies is crucial for two reasons. First, without central bank money, other settlement assets like stablecoins or tokenised deposits may be used, reintroducing credit risks and fragmentation into the financial system. Second, the market views the ability to settle in central bank money as a key factor in adopting new technologies.

Last year the Eurosystem conducted exploratory work with DLT for settling wholesale transactions in central bank money, using three different solutions to ensure interoperability between our infrastructures and market DLT platforms<sup>20</sup>. The results were highly promising, with 60 industry participants settling real transactions in central bank money or conducting experiments with mock transactions.

A wide range of securities and payments use cases were covered, including the first issuance of an EU sovereign bond using DLT. A total of €1.6 billion was settled over a six-month period, exceeding values settled in comparable initiatives in other parts of the world.

As the next step, we have already announced plans to provide a solution to settle DLT-based transactions in central bank money in the short term<sup>21</sup>. Looking further ahead, the Eurosystem will explore a more integrated, long-term solution.

A critical risk is indeed that DLT application fragmentation and a lack of interoperability could hinder the development of liquid DLT-based markets in Europe, imposing high costs on investors and issuers connecting to multiple platforms. So we need to create a more harmonised and integrated ecosystem.



One way to achieve this would be to move towards a shared ledger: a programmable platform bringing together token versions of central bank money, commercial bank money and other assets, on which market players can provide their services.

Another option could be the coordinated development of an ecosystem of fully interoperable technical solutions, which might better serve specific use cases and enable the coexistence of both legacy and new solutions.

This approach will help us enhance the efficiency of European financial markets through innovation, aligning with the Eurosystem's goal of achieving a more harmonised and integrated European financial system. However, we cannot do this alone. As we enter this new exploration phase, collaboration with public and market stakeholders will be crucial.

## Conclusion

The journey toward a digital euro and the integration of new technologies in wholesale transactions represents a pivotal moment for Europe. By embracing these innovations, we can strengthen our monetary sovereignty, enhance our

competitiveness and pave the way for a more integrated and resilient financial system.

The digital euro will ensure that Europeans have access to a secure, reliable and universally accepted digital payment solution that complements cash while reducing our reliance on foreign providers. Meanwhile, leveraging central bank money in DLT-based transactions will foster a dynamic and unified digital asset market, driving innovation and unlocking new business opportunities across the continent.

In this transformative era, collaboration is key. We must bring together all stakeholders – public and private, national and European – to craft solutions that reflect the diverse needs and perspectives of all Europeans. Together, we can harness these technological advancements to build a financial ecosystem that is not only more efficient and innovative but also more inclusive and secure.

We have inherited a united Europe and a currency embodying this unity. Our legacy should be European sovereignty and a euro that is fit for the future. This is our collective responsibility, in the public and private sector alike. ■

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*This article is based on a speech delivered at the France Payments Forum event 'Digital euro and the future of payments in Europe', Paris, 15 May 2025.*



# A trade war would undermine America's innovators



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**T**he Trump administration is correct to seek to revitalise American manufacturing—especially in critical advanced-technology industries. Thus far, however, the preferred path has principally been through tariffs that seek to induce manufacturers to relocate production to the United States. Unfortunately, a predominantly tariff-first reindustrialisation strategy is unlikely to succeed.

President Trump's trade war will harm American innovation in four ways:

- 1) A tariff wall will increase the cost of manufacturing in the United States, increasing domestic consumers' costs and making the economy less globally competitive;
- 2) Uncompetitive US-manufactured products will open the door for Chinese competitors to capture global market;
- 3) Other countries will enact their retaliatory tariffs;
- and 4) The more that unpredictability become the hallmark of the administration's trade war, the more that militates against companies committing to the expanded US advanced-manufacturing investments.

1. A tariff-first reindustrialisation will win back some manufacturing, but it will make US-manufactured high-tech products uncompetitive in global markets. The Trump administration's intent is clear: to impose high tariffs across a wide range of both imported components and final goods entering the United States.

Tariffs imposed under the International Emergency Economic Powers Act (IEEPA) are being litigated; however, the administration has a range of other tools at its disposal. For example, they have given signs to implement a host of forthcoming 'Section 232' tariffs—at 25 percent or higher levels—on advanced-technology products such as biopharmaceuticals and semiconductors.

Let's suppose a 25 percent tariff on semiconductors scenario. Building an advanced semiconductor fab can cost over \$30

billion and depends on the import of specialized inputs and components sourced across the world. Japanese suppliers produce 90 percent of the photomasks and photoresists central to the semiconductor etching process. Netherlands-based ASML produces the world's most sophisticated extreme ultraviolet (EUV) lithography equipment, which carries a price tag of \$380 million.

A 25 percent tariff instantly raises its price by \$100 million alone. Play that process out across the thousands of components that go into a semiconductor fab, and the reality that pervades is that while the Trump administration will likely attract some greater level of semiconductor manufacturing, the semiconductors America produces will be at a much higher cost.

More expensive US-produced semiconductors—or higher tariffs on imported semiconductors—will also have the downstream effect of increasing the price of every product that uses US-manufactured semiconductors (or foreign-imported ones). In the modern economy, that's virtually every product. Again, this process will not only jack up prices for American consumers—it will make US exports of these products globally uncompetitive.

These dynamics explain why ITIF finds that a blanket 25 percent tariff on US semiconductor imports would produce a 0.18 percent downturn in US economic growth in the first year, and if sustained over 10 years, would result in a 0.76 percent slowdown in US economic growth in the 10<sup>th</sup> year. The same dynamics will play out in other relevant industries, such as biopharmaceuticals.

In short, Trump's tariffs will likely induce a 'Galapagos Island' effect on America's advanced-technology industries—referring to policy-induced, isolated markets that serve domestic constituencies but are ultimately globally uncompetitive<sup>1</sup>.

However, the administration has not appeared to be greatly troubled by this, as it believes the US market alone will be sufficient to support globally competitive advanced companies. That view is fundamentally mistaken.

Advanced innovation industries have an exceptionally high cost of initial R&D and capital, requiring companies to access global markets at scale to both amortize their costs and generate sufficient revenues to finance the next generation of innovations.

Indeed, these dynamics explain why US manufacturers export over \$1.7 trillion annually, with at least \$550 billion corresponding to advanced-manufacturing products produced by large companies in sectors such as chemicals, computers and electronics, electrical equipment and components, machinery, transportation equipment, and other manufacturing goods<sup>2</sup>.

America's high-tech companies must have access to foreign markets to flourish. And it's for this reason that they will likely maintain as much manufacturing abroad as they can—to make price-competitive goods for global markets. Thus, a tariff-first reindustrialisation strategy will attract far less manufacturing back to the United States than other strategies might, particularly ones focused on investing in advanced technologies.

2. Uncompetitive US advanced-technology products will open the door for China to capture greater market share in third-party nations, denying US innovators the revenues produced from economies of scale to sustain future generations of innovation. The United States is locked in an internecine contest with China for leadership in the advanced-technology industries of the future, everything from AI and semiconductors to airplanes and electric vehicles to biotech and robots<sup>3</sup>.

Indeed, Chinese President Xi Jinping has stated that *"technological innovation has become the main battleground of the global playing field, and competition for tech dominance will grow unprecedentedly fierce."*

China is faring much better in this competition than has generally been understood. In a 2023 study, ITIF examined countries' enterprises' global market share across 10 critical advanced-technology industries: pharmaceuticals; electrical equipment; machinery and equipment; motor vehicle equipment; other transport equipment (largely aerospace); computer, electronic, and optical products; information technology and information services; chemicals; basic metals; and fabricated metals<sup>4</sup>.

It found that while China accounted for less than 5 percent of the global market in these 10 industries in 1995, by 2020 that share exceeded 25 percent. Elsewhere, the United Nations Industrial Development Organization estimates that China now accounts for 26 to 30 percent of global manufacturing value-added, with that share potentially rising to as much as 45 percent by the end of this decade, while America's share falls to 11 percent<sup>5</sup>.

In short, there's a global fight for every new factory in the world—just as there's a fight for the sale of every manufactured product in the world—and every time Boeing loses an aircraft sale to COMAC in Vietnam or Huawei sells a phone or AI

*"A successful effort to attract advanced manufacturing investments involves the challenging work of developing and implementing a strategy that lays the groundwork for investment in the next generation of technologies, manufacturing processes, and robust supply chains"*

chip instead of Apple or NVIDIA (whether in China, India, or anywhere else), American companies lose the opportunity to earn the revenues needed to sustain innovation. And if they're forced to sell artificially more expensive goods into global markets due to tariffs, this dynamic worsens.

The unwillingness of the Trump administration—similar to the previous unwillingness of the Biden administration—to negotiate free trade agreements with key trade partners allows China to create trade frameworks that benefit its firms at the expense of Americans.

Indeed, China has already launched a 'charm offensive' seeking to deepen trade relations with countries such as Japan, Korea, and Vietnam.

China's objective is to rewrite the global trade rules in its favour. In particular, China's engagement in the Regional Comprehensive Economic Partnership (RCEP)—a trade agreement that includes Southeast Asian countries as well as Australia, Japan, Korea, and New Zealand—gives it a platform to reshape the global trade system. Notably, RCEP's lack of robust enforcement mechanisms, market access commitments, workforce protection standards, or provisions against non-tariff barriers does little to constrain China's mercantilist model.

The United States exigently needs to join the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), and in so doing, prevent China from joining, and then use that as the springboard to create a community of like-minded nations committed to much higher standards of private enterprise-led, market-based, rules-governed trade.

The countries—including the United States—that initially conceptualized the CPTPP envisioned it as an economic bloc to counter China's mercantilism; China's possible entry into this trade agreement—possible if the United States continues to refuse to engage—would crystallize American retreat from leadership of the global trade system.

3. The Trump administration does not appear to be adequately factoring in the harm that other nations' retaliatory tariffs would inflict on American innovators. Indeed, if the United States were to implement and sustain significant tariffs on



other nations' goods, this would likely engender retaliatory tariffs in kind.

ITIF simulated the potential impacts on goods covered under the World Trade Organization's Information Technology Agreement (ITA) if countries were to impose tit-for-tat tariffs on the United States under three scenarios: like those announced on Liberation Day, the 90-day pause of reciprocal tariffs announced a week later, and the exemption for 20 products announced a few days afterward. In these scenarios, US exports of ITA products would decline by between 18 and 27 percent, resulting in annual losses exceeding \$56 billion<sup>6</sup>.

4. Trump's tariffs implementation thus far creates an uncertain environment unconducive to attracting companies to make investments in the United States. A successful effort to attract advanced manufacturing investments involves the challenging work of developing and implementing a strategy that lays the groundwork for investment in the next generation of technologies, manufacturing processes, and robust supply chains, supported by a strong domestic base of manufacturing suppliers and a workforce that will make American manufacturing globally competitive.

Indeed, ITIF has long contended that only a serious national industry strategy—or 'national developmentalist approach'—will be sufficient to counter China's rise and place US advanced manufacturing competitiveness on a stable, long-term footing<sup>7</sup>.

Unfortunately, this is where the real lacunae of a tariff-first reindustrialisation strategy without the complementary investments truly needed get laid bare. For instance, the

Trump administration has sought to gut the Department of Commerce's Manufacturing Extension Partnership (MEP) program, which plays a crucial role in helping America's SME manufacturers—which account for over 98 percent of all US manufacturers—adopt advanced production technologies and processes. While Congress is likely to maintain funding for the program, some administration budget proposals have called for zeroing out the program<sup>8</sup>.

Similarly, the administration has sought to severely curtail National Science Foundation (NSF) funding, proposing to cut NSF funding by \$4.7 billion, more than 50 percent of what the agency currently receives.

The administration has also proposed funding cuts of nearly 40 percent at the National Institutes of Health and nearly half of NASA's Science Mission Directorate<sup>9</sup>.

These proposed cuts are quite concerning, particularly when China's gross R&D expenditures have likely already caught up to, if not exceeded, America's<sup>10</sup>. Likewise, targeting international students seeking visas will also deter the world's top researchers from coming to work in the United States.

To be sure, the Trump administration has proposed some supportive policies. Notably, proposed reconciliation legislation includes restoring first-year expensing, which allows for the immediate deduction of 100 percent of domestic R&D expenses for tax years 2025–2029<sup>11</sup>.

Similarly, the executive order establishing the United States Investment Accelerator creates an entity that can play a productive role in reducing regulatory burdens, speeding up



permitting, coordinating responses to investor issues across multiple federal agencies, and facilitating collaboration with national laboratories and other national innovation assets.

But this is where the greater focus needs to be: policies and investments that will make American manufacturing genuinely competitive on a sustainable basis. One final point should be made here. The Trump administration appears to view all manufacturing as equal. Even most food products involve some manufacturing process (eg. packaging).

However, not all finished products are relevant to America's techno-economic global leadership (ie. a nation does not become a global power by manufacturing apparel), nor do they contain the embedded knowledge or advanced research and development (R&D) needed to generate spillovers to

other sectors. Indeed, there's a significant difference between potato chips and computer chips<sup>12</sup>.

The White House recently stated that *"for far too long, globalist elites sold out the American worker and let other countries unfairly take our factories, our jobs, and our dreams."*<sup>13</sup>

Regardless of the rhetoric, the reality is that the United States is falling behind in the race for an innovative future, where America leads the world in innovation.

A trade war, as has been conducted so far, may only intensify this trend. Trump's trade war might result in more innovation, but perhaps it won't be American innovators; China might win because the United States is too busy fighting a trade war with the rest of the world. ■

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# Monetary policy in uncertain times

Andrew Bailey is the Governor of the Bank of England

**W**e live in a world where big shocks can challenge the way we go about our lives and force us to adapt, build resilience and be ready to act. On some days, an icy wind blows from the North under a clear blue sky. On others, Autumn's dismal rain moves in from the South under a sky packed tight with clouds.

Occasionally, tectonic plates shift, and volcanos erupt. I am not going to belabour the metaphor. Suffice to say that we live in a world where big economic shocks can test the strength and resilience of the framework for monetary policy.

In the United Kingdom, where the weather can be to say the least variable that monetary policy framework is inflation targeting. It is well-established and has proved its worth. The numerical inflation target and an independent Monetary Policy Committee with a diversity of views, expertise and experience, supported by expert analysis from staff, has been fundamental in anchoring inflation expectations and delivering price stability.

In the early days after inflation targeting was first established in the 1990s, however, the world was a different place. It was the 'NICE' (or 'Non-Inflationary and Consistently Expansionary') period, according to one of my predecessors – a time when, on the whole, fluctuations in economic activity were driven by small shocks to aggregate demand against a backdrop of a steadily expanding supply side<sup>1</sup>. These were mild days of warm breezes and springlike rain.

In this world, monetary policy could no doubt be challenging, but the setting was reasonably predictable. Central to MPC deliberations at the time was to form a clear view of the outlook for aggregate demand in the 1-2 years ahead and set interest rates in a forward-looking manner such that it aligned with aggregate supply.

In this way, inflationary pressures would be kept in check, and the economy could grow along a sustainable path with consumer prices rising at the target rate. This was a world that lent itself to one central projection as the basis for



policy deliberations and to communicate the inflation and policy outlook to the outside world – with the central paths positioned within fan charts thereby rightly avoiding any suggestions of a spurious degree of precision<sup>2</sup>.

The global financial crisis was the first major test of this approach. Demand was certainly affected in this episode, by uncertainty and the loss of wealth and income, but it was not the only part of the economy to suffer. The supply side of the economy was affected too, and sharp exchange rate moves affected imported inflation directly.

Inflation targeting had to adapt to recognise and manage evident trade-offs between the speed with which inflation was brought back to target and the balance between aggregate demand and supply in the transition.

In the United Kingdom, this was expanded in the annual remit letter from the Government to the Bank of England in 2013. The remit recognises that there are circumstances in which returning inflation to target as quickly as the lags in the monetary policy transmission mechanism allow could cause undesirable volatility in economic activity and employment.

Expanding this to large and persistent shocks was a sensible change, and ‘trade-off management’ was subsequently deployed in the response to the United Kingdom’s decision to leave the European Union<sup>3</sup>.

But it did not fundamentally change the way the MPC went about its business, with a central projection and a fan chart around it derived from past forecast errors at the centre of its policy deliberations and communication.

Over the last five years, the world has been very different, certainly compared to the tranquil years before the global

*“Over the last five years, the world has been very different, certainly compared to the tranquil years before the global financial crisis. Whatever we call this period, a sequence of unprecedented global shocks has created a very challenging environment for monetary policy”*

financial crisis. As my former colleague Ben Broadbent put it, we went from NICE to NaSTY (‘Not-AS-Tranquil Years’)<sup>4</sup>. Whatever we call this period, a sequence of unprecedented global shocks has created a very challenging environment for monetary policy.

The largest pandemic in a century, the largest war in Europe since 1945, and now a trade war between the world’s two largest economies – these are not small and simple disturbances to aggregate demand, and they come against a backdrop of low productivity growth and ageing populations.

While it remains to be seen how recent changes to global trade policies will play out and what the effects on our economies will be, the effects of the pandemic and Russia’s brutal war on the Ukrainian people are fresh in our minds. Our economies have suffered, inflation has surged. These have been hard



times for businesses and households, not least those on lower incomes.

As the economic effects of these shocks have faded and inflation has come down, we do also have a positive story to tell. The nominal anchor has remained intact. Inflation targeting – through forceful action to lean against second-round effects from the global shocks on domestic price and wage setting with a restrictive monetary policy stance – is working to return inflation sustainably to target.

It is testament to the strength and resilience of this framework that we can say we are on course to put the inflation surge firmly behind us.

This is not to sound complacent. We must learn the lessons from the difficulties we have faced as policymakers and forecasters over this period. Our models, infrastructure and analytical frameworks were challenged by the sheer scale and unpredictability of the shocks that hit us. Underlying issues were revealed under the stress of these big unforeseeable events.

Forecasting became much more difficult, irrespective of the specific models and approaches used. We need no reminder that the global economic environment is likely to continue to be challenging – and less predictable – than it was in the past.

So we need to adapt and develop to ensure that our processes are nimble and robust, and that our monetary policy decisions are communicated effectively, while ensuring that we continue to act methodically in response to inflationary pressures.

That is why, in the Summer of 2023, we asked Ben Bernanke to lead an independent review into the Bank of England's forecasting and related processes during times of significant uncertainty. We are very grateful to him for having taken on this work and for the dedication he put into it.

As you would expect, the review Dr Bernanke published in April last year was a thorough and carefully conducted assessment of the relationship between our projections, monetary policy decisions, and their communication. It has been an excellent catalyst for a comprehensive programme of change.

There are many practical elements to this work. In the year since the report, we have made substantial investments to continue to develop key parts of the Bank's model and data infrastructure. A significant programme is in train to deliver a state-of-the-art environment for working with data on the cloud, and to update our systems for accessing, analysing and visualising data accordingly.

We have updated our core structural macro model to better capture the transmission of energy price shocks and to tackle the extreme data outturns of the pandemic period. And we are widening our suite of models including heterogeneous agents, machine learning and threshold vector-autoregressive models as well as a new semi-structural model. Work is underway to

bring this together in a modelling and data environment with enhanced capabilities for forecasting and policy analysis.

But more broadly, the challenge we face is to adapt our processes so that they assign more prominence to risks and welcome challenge to underlying assumptions, drawing on a wider range of analysis and exploring different economic shocks and mechanisms through which they affect the economy, while ensuring that it continues to serve to maintain the nominal anchor that is the Alpha and the Omega of inflation targeting.

The UK setup with an MPC with nine individually accountable members, each with an equal vote in monetary policy decisions, was never a good match for a single core model and a single central projection summarising one view of the outlook.

Policy discussions on the MPC are open, frank and lively – as they should be. Expert views are exchanged, assumptions investigated, and questions posed. Three-way splits are not unheard of. I can honestly say that there is no groupthink on the MPC.

This is a system with great strengths. Diversity of expertise and experience, combined with expert knowledge, makes for better decisions given the complexity of monetary policy. Differences of views are inevitable consequences of the uncertainty we face. But equally, behind a split vote is often a high degree of communality on the qualitative factors shaping the outlook and the broad implications for the policy stance.

In agreeing on a central projection, the MPC has historically come together by forming what has long been described as its 'best collective judgement'. This is a view of the outlook that all members can sign up to as reflecting the balance of views on the Committee. But exactly what the 'best collective judgement' is meant to represent has been left undefined and ambiguous, open for discussion and negotiation.

Embracing this ambiguity has been the way the MPC has reconciled individual accountability with the approach of formulating monetary policy through a central projection for the economy and inflation.

Dr Bernanke challenged us to reconsider this approach, and instead of only deliberating our way towards a 'best collective judgement' of a central case to add alternative scenarios to our policy making process and communication. That, he said, would *"help the public better understand the reasons for the policy choice, including risk management considerations."*

In response, as my colleague Clare Lombardelli set out in a speech last Autumn, we have been building scenarios into our processes, framed within a broader discussion of risks to the outlook<sup>5</sup>. And we have started to see the benefits.

Scenarios have helped us not only to explore what would happen in case a particular shock, or constellation of shocks, should hit the economy, but also how any given set of shocks



could affect the economy and inflation depending on the strengths of different economic mechanisms.

And it has helped us consider how monetary policy should respond in different states of the world – or with a different balance of risks – as well as the implications of setting policy as if we are in one state of the world when in fact we are in another. These are considerations that enrich monetary policy deliberations.

In the *Monetary Policy Report*, we presented two alternative scenarios along with a baseline projection. In the first scenario, global and domestic uncertainty could weigh on UK demand to a greater extent than in the baseline, in turn easing inflationary pressures. In the second scenario, recent energy price rises could lead to new second-round effects on domestic prices and supply could be more constrained, in turn increasing inflationary pressures.

These scenarios are meant to convey more than mere upside and downside risks to inflation. By setting out the mechanisms behind them, they explore why inflation may take a different path. And from a policy perspective, it matters whether inflation differs from the baseline because of demand or supply. Even if the difference in inflation is of a similar magnitude on the downside and on the upside, the size of the required monetary policy response might not be.

A demand-driven downside scenario is likely to require a larger monetary policy response than a supply-driven upside scenario, simply because there is more of a trade-off to balance when inflation and activity move in different directions. These are nuances that an articulation of the mechanisms behind the scenarios can help us bring out and clarify in our communication.

But the choice of these two scenarios – proposed by Bank staff – should not be taken to mean that MPC members, individually or collectively, put a larger weight on a downside risk to inflation from demand and an upside risk in inflation from supply than the opposite constellation with an upside risk from demand and a downside risk from supply.

Nor should it be taken to mean that inflation risk is skewed in one direction or the other, or that we see the risks to the path for Bank Rate to be skewed. The scenarios are only two examples from many possible paths the economy could take. That is important to emphasise.

What the scenarios also do, by exploring important judgements underlying the projection, is to serve as articulations of elements of the outlook that individual MPC members can use to position themselves within our material.

This is an additional benefit in the UK context where MPC members are individually accountable for their votes and are expected to explain their positions to the wider public. Scenarios, combined with a broader set of analysis, can help support the explanation of alternative views without the need to sign up to a ‘best collective judgement’.

This is the direction of travel for our monetary policy communication. We are moving away from one central projection reflecting the ‘best collective judgement’ of the MPC, set within fan charts to illustrate risks around it. This was a good approach in a world where fluctuations in activity and inflation were largely driven by relatively small disturbances to demand.

But it does not work as well in the world we now live in where we are exposed to big shocks to supply as well as demand – and in particular in a context where individual members of a policy committee are individually accountable for their decisions.

So instead, we are putting greater weight on the key judgements behind our view of the outlook, emphasising the underlying economics as much as precise numbers, and framing our discussions within a broader discussion of risks and drawing on a wider range of analysis.

We will maintain a baseline projection, based on a staff proposal, one that a majority of the MPC agrees is a reasonable baseline, rather than one that meets an elusive notion of the MPC’s ‘best collective judgement’. And we will use scenarios as vehicles for exploring risks around the baseline and accommodating differences of views on the Committee.

Over time the scenarios we look at will evolve as our capabilities advance. And as we build out the scenarios, we will be able to develop the explanation about how we have factored them into monetary policy decisions. So our public communications will evolve along with this process.

These changes that will help us build resilience into our inflation targeting framework and secure the nominal anchor for the future, whatever it may bring, come wind or rain. Our commitment to the 2% inflation target is unwavering. ■

#### Endnotes

1. Speech by Mervyn King | Bank of England.
2. Quarterly Bulletin February 1998 | Bank of England.
3. Lambda - speech by Mark Carney | Bank of England.
4. From NICE... to not so nice - speech by Ben Broadbent | Bank of England.
5. Managing the present, shaping the future - speech by Clare Lombardelli | Bank of England.

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# WORLD COMMERCE REVIEW

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EURO EXIM BANK  
Facilitating Global Trade

# INDIAN TIGER



**SANJAY MALHOTRA BELIEVES  
INDIA IS POISED TO BE A  
DYNAMIC POWERHOUSE OF  
OPPORTUNITIES**

**GRAHAM BRIGHT CONSIDERS  
THE GLOBAL TRADE LANDSCAPE  
AND FEARS THE RISKS OF  
INSTABILITY AND CONFLICT**

**URSULA VON DER  
LEYEN DISCUSSES THE  
CONSEQUENTIAL PARTNERSHIP  
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# The consequential partnership

## Ursula von der Leyen is President of the European Commission

**I**t was Gandhi himself who famously said that a nation's culture resides in the hearts and in the soul of its people. This is certainly true of India, its people and its breathtaking cultural heritage and history. And above and beyond any economic or diplomatic relations, I believe it is culture that binds the people of India and Europe together.

We have a shared love of sport, art and literature. Our students and academics work and deepen their knowledge together. And our companies do business together on a scale almost unmatched around the world. All of this makes us natural and long-standing partners as we start our third decade of strategic partnership.

I believe what lies ahead is far greater than what has already been. Although history can always be a useful guide for how to approach the world of today. If we think back to 1947, we see how the soul of this great nation and its struggle through history propelled India to its independence. And looking back at the voices of the time, we also hear and feel the resolve and the determination of India to build prosperity, security and democracy for its future generations.

The words spoken at the time were as prophetic as they were poignant. At the same time in Europe, we were trying to put back together the pieces of our Continent ravaged by war. The countries of Europe chose to come together. To tie their destinies, their security and prosperity to one another in order not to repeat the mistakes of our past. This is how the seeds of our European Union were planted.

The point is that the world then was fragile, fractured and on the verge of change that would define the next eight decades. And both Europe and India, albeit in very different circumstances, understood the need to come together. I believe this is a clarion call for all of us as we stand here in 2025 at another inflection point in history.

I do not need to describe the geopolitical and geoeconomic headwinds that both the EU and India are confronted with. We have all seen how countries are weaponising their sources of strength against each other whether natural resources or new technologies, or economic and military coercion.

We have seen how supply chains and dependencies are used to gain influence or drive wedges between nations and

regions. We have seen a more aggressive posture from major powers and of course the conflicts that have destabilised entire regions.

How countries, in particular in the Global South, are looking for alternatives to what the international system has offered them. And we have seen clear attempts to split off parts of the world into isolated fragments.

This world is fraught with danger. But I believe this modern version of great power competition is an opportunity for Europe and India to reimagine their partnership. In many ways, the EU and India are uniquely placed to respond to this challenge together.

India is the largest democracy and soon to be in the top 4 of the world's largest economies. It is the leading voice of the Global South. Europe is a unique crossborder democracy and open economy. The largest trading partner for some 80 countries around the world.

But this partnership makes sense not only because of our shared values or our close ties. Or even because of our respective geographies, demographics or economies. But it is because our interests in this hyper-competitive world align more often than not. We both stand to lose from a world of spheres of influence and isolationism. And we both stand to gain from a world of cooperation and working together.

Because we can offer each other distinctive alternatives and tools to make ourselves stronger, more secure and more sovereign in today's world. The kind of offer that cannot really be replicated by others. This is why the EU and India have the potential to be one of the defining partnerships of this century.

And it is why it will be a cornerstone of Europe's foreign policy in the years and decades to come. So, I want this to be the start of this new era. Prime Minister Modi and I share the same view. It is time to take our EU-India Strategic Partnership to the next level. For our own security and our prosperity. For the common global challenges that we face. And for the benefit of our respective regions and our partners around the world.

Over the last thirty years we have done a lot together. But in truth we have only been scratching the surface of the

potential that is there. So, this is not a time to place limits on our cooperation. Or to get stuck looking for agreement on every issue of regional or global concern. It is time to be pragmatic and ambitious. And to realign our priorities for today's realities.

Allow me to very briefly map out my vision of the three areas which can take our partnership to the next level. The first is trade and technology. The second is security and defence. And the third is connectivity and global partnership.

The first area where I believe we can make real progress is on delivering prosperity in Europe and in India. Here we have a real shared interest and sense of purpose. India's *Viksit Bharat 2047* vision will help to transform the economy and create millions of jobs from traditional manufacturing sectors to high-tech industries and innovation. Europe is striving towards the same goal through our own economic and industrial transformation. I believe that we can help each other to reach our goals.

Make in India and 'made in Europe' can work together to drive our industries forward. And our common interests in de-risking our economies, in particular in sensitive technological areas, can help drive our economic security. Let's take some examples. We are both looking to diversify some of our most critical value chains. From our side this is for example the case on batteries or pharma, semiconductors, clean hydrogen or defence.

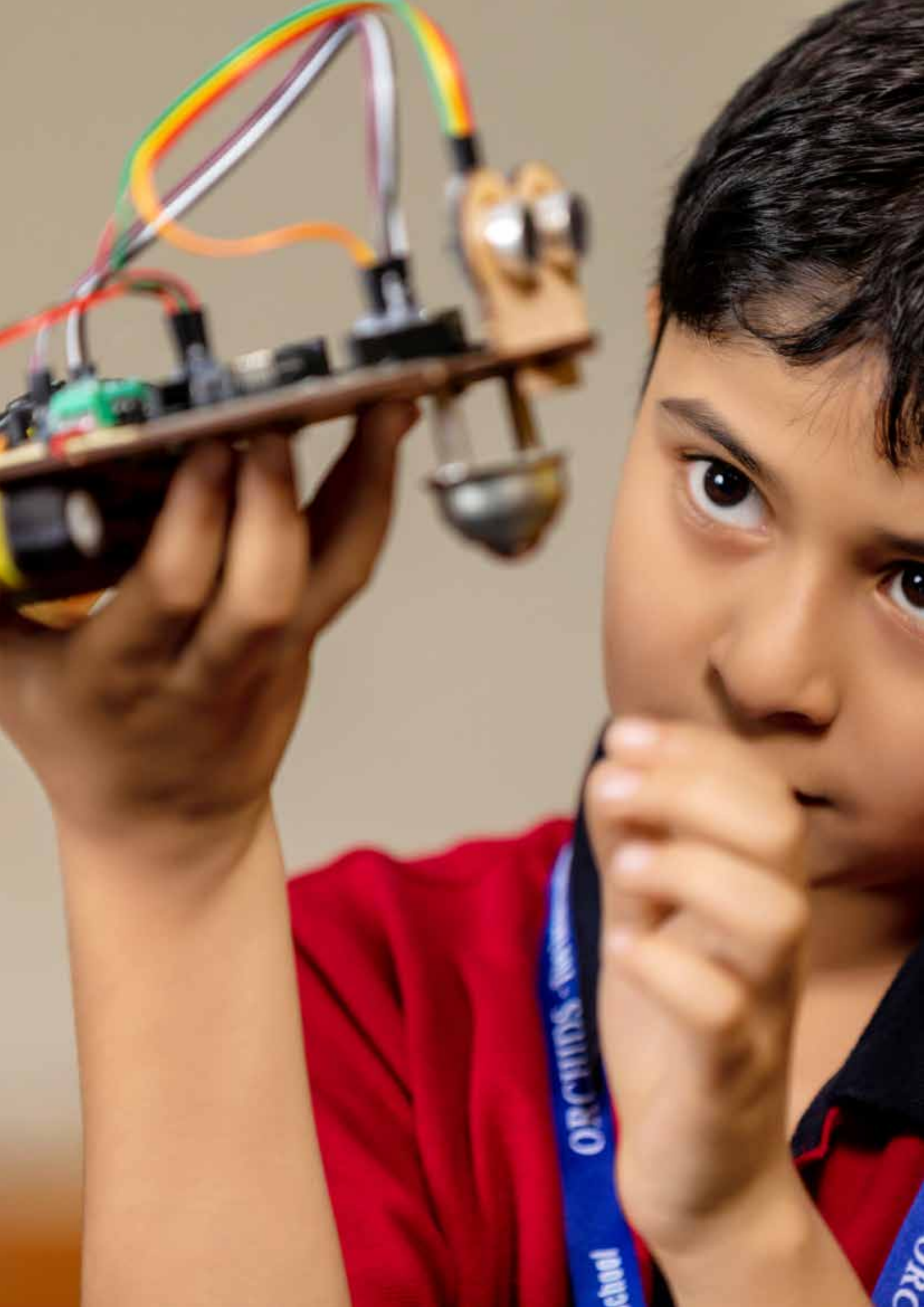
And we can support each other to achieve that. For that we need to have an ambitious trade and investment partnership. Today, the EU is India's largest trading partner, sitting ahead of

*"I believe 2025 is a historic window of opportunity to build an indivisible partnership between Europe and India. Our interests align. Our commitment is iron-clad. And if it can be done anywhere, it can be done here"*

both the US and China. European companies create 8 million jobs here in India. But we could do so much more by improving market access and tackling the barriers to trade. And I believe this can be a launchpad to strengthen cooperation in key sectors which will drive the global economy as we head towards mid-century.

From semi-conductors to clean tech, from AI to high performance computing and digital public infrastructure. By investing together in this tech and by building strong supply chains, we can create a real advantage for ourselves in today's competitive global economy. And we should draw on each other's skills and talents. Such as our academics and researchers, to help make that happen.







A free trade agreement between the EU and India would be the largest deal of this kind anywhere in the world. I am well aware it will not be easy. But I also know that timing and determination counts, and that this partnership comes at the right moment for both of us. This is why we have agreed with Prime Minister Modi to push to get it done during this year. And you can count on my full commitment to make sure we can deliver.

The second broad area for renewed cooperation is security and stability. Here again we have many shared interests. Wars, conflicts and coups have erupted in Europe, the Middle East and Asia, in Africa and across different regions. And what happens in one part of the world matters to both Europe and India. Even if we sit far apart on the map. Because peace, security and prosperity are indivisible in this world.

In Europe, Russia's goal is to tear Ukraine apart. And we should be clear about what is at stake here. A failed Ukraine would not only weaken Europe. And that is why we have taken historic steps to support Ukraine and its future. But a failed Ukraine would also intensify the challenges in other parts of the world. Not least in this region.

Other countries around the world are watching very closely whether there is any impunity if you invade a neighbour or violate international borders. Or whether there are real deterrents. This is why we want any peace talks to lead to a just and lasting peace. With a free and prosperous Ukraine, that can join the European family.

And Europe is ready to live up to its responsibility when it comes to security and defence. We will step up our defence

spending to ensure that member states have access to the full spectrum of capabilities that this new reality demands. But we also want to step up cooperation with crucial partners like India.

This is why I can announce that we are exploring a future Security and Defence Partnership with India in the mould of the partnerships we have with Japan and South Korea. This will help us step up our work to counter common threats whether on crossborder terrorism, maritime security threats, cyber-attacks or the new phenomenon we see: attacks on our critical infrastructure.

There is a lot that we can build on. For instance, the recent collaboration on maritime security. And I am delighted at India's interest in joining defence industrial projects under the EU's Permanent Structured Cooperation. India is working hard to diversify its military supply and to access new capabilities. And I believe we can help each other to deliver on our security objectives.

For instance, we can join forces where we have technology and expertise, such as on cyber security, space and drones. This is not only about stability in our respective regions. But it is also a key part in strengthening our economic security and ultimately our prosperity. And this is why security should be a core part of our new strategic partnership with India.

The third and final element I will touch on is the need to deepen our connectivity links and our global partnerships. And here there is a lot that Europe can learn from India. India has been a leading voice in bringing to the fore the concerns of many countries in the Global South. Addressing these



issues becomes all the more important in a world where major powers are pulling away or even pulling at the seams of the international system.

And I believe India and Europe have a real opportunity to step up. To invest in each other, and to invest in our global partnerships. This is in our core economic and national security interest. India can play a unique role as a bridge between the Global South and the rest of the world. Between the Indo-Pacific and Europe. And Europe is ready to invest to help bring that to life.

Through Global Gateway, our €300 billion global infrastructure offer, we can invest in projects to transport energy across India, and between India and the world. And this is just the start of what can be done to build this connectivity between India, Europe and the regions between us.

The India-Middle East-Europe corridor launched here in New Delhi in 2023 during India's G20 Presidency is a historic opportunity to bring this to life. It's an amazing project. This can be a modern golden road – directly connecting India, the Arabian Gulf and Europe.

With a rail link, that will make trade between India and Europe 40% faster. With an electricity cable and a clean hydrogen pipeline. And a high-speed data cable to link some of the most innovative digital ecosystems in the world.

This corridor is much more than 'just' a railway or a cable. It is a green and digital bridge across continents and civilisations. And it can help bring us closer together and boost trade on everything from batteries to clean hydrogen and digital services.

This can be a win-win-win for Europe, India and our partners. We are ready to invest in concrete projects that can already start making these connections happen. Europe is open for business, and we are ready to invest in our common future with India.

Investing in our common future. This is the driving force of this new era of partnership between Europe and India. In troubled times great opportunities come. And I believe 2025 is a historic window of opportunity to build an indivisible partnership between Europe and India. Our interests align. Our commitment is iron-clad. And if it can be done anywhere, it can be done here.

Because as Romain Rolland – the French writer and great admirer of India said: *"If there is one place on the face of earth where all the dreams of living men have found a home from the very earliest days when man began the dream of existence, it is India."*

And today we are one step closer to making our common dream a reality. ■

*This article is based on a speech delivered at the 'The Consequential Partnership: Reimagining and realigning EU and India ties for today's world', New Delhi, 28 February 2025.*



# FUD and the rise of economic nationalism

**Dr Graham Bright is Head – Compliance & Operations, at Euro Exim Bank**

It goes without saying that the world is in a fragile state, where we are living in a FUD culture. (Fear, Uncertainty, and Doubt). These sentiments are pervasive economic forces and even psychological drivers that influence behaviour of buyers and sellers across the globe.

Critical events such as significant stock market losses and rebounds, that were typically experienced years apart (such as the South Sea Bubble, Wall Street crash, sub-prime banking crisis) are now almost daily occurrences.

In our interconnected global economy, international trade is vulnerable to tariffs and sanctions, and more intangible elements such as poor perception, lack of trust, and low confidence. So how does fear, uncertainty and doubt manifest itself in trade?

Firstly fear. What economies dread most are threats from home and abroad that may destabilise current process, necessitate

uncosted, unexpected and unpredictable rapid changes in policy, and importantly, unforeseen outcomes and demands that may take years to unravel, such as suddenly needing to find alternative supply chains.

Then, uncertainty. Challenges in making logical provisions, understanding constant changes to regulations, customs incompatibility, and regulatory mandates affecting single countries and larger trading blocs. This may also affect trade agreements, movement of labour and the resulting bureaucracy around crossborder activity. And it could all change overnight.

And finally, doubt. Basic mistrust and scepticism abound regarding the stability, intent and means of partners, suppliers and institutions, whether local or global to act ethically and morally. Trust is key, as is the hope that product will not be stolen, counterfeited, misrepresented or your intellectual property and patents are not misappropriated.



As companies' de-risk, delay large investments, try to prevent currency flight, make more product in home markets, international trade is becoming hijacked by economic nationalism.

Thankfully today nobody throws themselves off buildings when experiencing financial loss, and large banks survive, the wealthy remain unaffected, and buses still run.

But for the small investor, home owning saver and man in the street without bitcoin, these times are increasingly challenging.

Of course, this is not helped by fluctuating political sentiment. Diplomatic U-turns, attempts at high level talks and conflict resolution failing, are not helping, nor are the predictions in a TV interview of legendary banker Jamie Dimon; *"Global fiscal deficits are inflationary. I think the remilitarization of the world is inflationary. The restructuring of trade is inflationary."*

The eyes of the world have recently witnessed the 'just in time' avoidance of a major conflict between India and Pakistan, continued posturing of a peace agreement between Ukraine and Russia, and continued action in Gaza, whilst armaments manufacturers prosper, ordinary people are under extreme hardship.

So, it's easy to see why traders are reticent in making big commitments, noting serious rapidly evolving geopolitical tensions, almost daily economic policy changes and headline seeking implications. These elements affect market sentiment, trust and confidence, wondering how to deal with disrupted global supply chains, and engendering a feeling of being out of control.

*"Events are cyclical. From the East India company world domination to independent states, emerging economies, new supply chains, collective trading blocs, free trade agreements across continents, the breakup of the former USSR, the formation and divergence within the EU, we see a return to isolationist, protectionist and economic nationalism"*

For SMEs, which account for up to 90% of global businesses, these are yet more challenges to their existing issues of lack of liquidity and funding, and frequent and onerous regulatory challenges.

In a recent article, I wrote about how the continent of Africa was seeking to extend the free trade agreement African Continental Free Trade Area (AfCFTA) with its Project 54 deals, announced in Rwanda in April. The project starts with implementation of new technologies, for a Next-Gen Digital Payment Infrastructure.

The goal is to see the benefits of technological innovation become inclusive, sustainable, and transformative, reaching every individual and enterprise, regardless of geography.



The objective? A seamless, trusted, interoperable and efficient crossborder payment system, promoting data exchange economic empowerment, financial resilience, and ensuring that Africa's digital economy is built on an infrastructure that meets the needs of businesses and individuals alike.

The simple outcomes are to further digital interconnectivity, standardise, rationalise and re-use resources and systems, reduce trade barriers and harmonise regulations.

Additionally working collaboratively for the common good in realising assets, processing raw materials closer to the point of extraction, and taking the true economic value of rare commodities would further stimulate trade and allow the continent to truly benefit from its natural resources, manpower and cost of production.

And this is possible, with free trade and fair trade working together. However, these valiant efforts may well be thwarted at the first hurdle.

With great fanfare, and fair amount of shock (especially when announcing new tariff rates for China) the US openly declared its global intentions.

To make America great again, the administration has a clear policy to rebuild industries, re-invigorate infrastructure, efficiently and economically supply its home markets, restrict expensive imports and provide new employment opportunity.

But after the hue and cry, and thought that this was just another tax, many countries will potentially be better off. India's rate was 26%, Vietnam 46%, Botswana 27%, Lesotho 50%, Mauritius 40% and South Africa 30%. Now, or for the time being at least until July, they are rated at 10%.

And this has already affected trade. The dollar has been falling against other currencies (1.22 to Stirling in January up to 1.33 in May). The global impact could be a fall in global GDP of 1%, with latest economic outlooks indicating a 40% likelihood of US recession.

And economic nationalism is the result and actively encouraged. Through trade policy, industrial policy, competition policy, restricted foreign direct investment (FDI), immigration, and macroeconomic policy, offensive use of tariffs rather than unbounded free trade, restricted rather than free labour movement, and tight control on movement of funds to prevent capital flight, no nation is immune from its effects.

By advocating protectionist policies and routes to self-sufficiency, there is a much more aggressive involvement by the state, often stifling entrepreneurial flair, to satisfy nationalistic, isolationist policy.

The thought-process of trading with liberalism and benefits for all has been highjacked, in favour of nationalist goals, not personal or corporate, enabling the building of greater military power and national security.

The construct of economic nationalism has never been more prevalent, designed to maximize exports and minimize imports for an economy, accumulating resources for one-sided trade with one-sided benefits, and clearly anti-globalisation.

In this scenario, international trade is not viewed as a 'win-win' between nations, a meeting of minds, a sharing of revenue, but where success, especially economic success, is only possible at the expense of other people's failure, or where the aim is to achieve gains for oneself only.

As with all nations suffering huge trade gaps, mercantilism aims to reduce a possible current account deficit, attempting to secure domestic funds, and build reserves of finished goods through investment in industrial processes.

History shows us that such policies may have contributed to conflicts and with little agriculture or manufacturing, countries then embarking on aggressive foreign policies, embracing colonial expansion.

The 16<sup>th</sup> century saw the rise of the East India Company, in its day the worlds' largest company, accounting for half of world trade, with global influence and value of more than 7.9 trillion USD in today's money.

However, nations were already restricting trade, promoting tariffs and subsidies, and building domestic infrastructure with a view to creating the framework for long term exports.

Scroll forward to the twenty first century, and nothing much has changed.

Challenges of globalisation, economic inequality, security issues, limited critical raw materials required in new technology industries and political extremism and unrest now abound.

Through tariffs, sanctions and blatant discrimination, with adoption of protectionist policies, these factors have created an ever-changing complex landscape compromising the global trade arena, especially around global supply chains.

Where in the past economies relied on relatively few products, new technologies have created unprecedented demand for critical raw materials (ie. used in mobile phones and communications devices powering the internet) requiring lengthy, costly extraction processes, from small deposits in unique areas.

Traditional sources are in many instances no longer economically viable or exhausted (ie. for critical materials and metals), where companies are forced to seek materials further afield, or even resorting to moving manufacturing to avoid having to import goods and face restrictions, regulation and risk.

And tariffs, either by design or retaliatory, have certainly been an effective means to beat off competition in agriculture, automotive and electronics industries. Indeed, by creating more barriers, nations are creating their own standards and

regulatory arenas, pulling away from a once cooperative contact surface to fierce competition, leaving a disrupted, fragmented trading and technology landscape.

By decoupling technology, stopping collaboration on strategic projects in defence, AI, cyber security, blockchain and crypto are compromised, with missed opportunity, additional risk and duplicated excessive cost.

Just as important will be the continued dependency on the US dollar. Wars may rage, but international deals continue with the majority still undertaken in the dollar, which remains the official currency for reserves and for global crossborder trade.

Countries need dollar reserves to pay for imports and to cover local liabilities in dollars in crises. But, whilst the US seeks to protect its primary position and flex political muscles through imposition of financial sanctions and tariffs, it is no wonder that affected countries are looking to find alternatives to circumvent lack of liquidity, high rates of exchange and contraction of trade through non-participation among domestic institutions. However, as the world's leading reserve currency, this is not likely to change any time soon.

Even as China expands use of renminbi loans for oil and commodity deals, the question remains whether they would effectively open capital accounts and float the currency on world markets. Probably not, with the short to medium prospect of the currency becoming mainstream and eventually eclipsing US dollars remaining remote.

More likely is the uptake of unregulated crypto currency, consensus in trading blocs such as BRICS to determine their

own payments, trade movement and collective currency, and further reliance on the digital form of a country's fiat currency through central banks namely CBDCs, fully regulated, protected and not wildly fluctuating.

Demand for gold as a commodity but not any longer a reserve currency has certainly grown, forcing up prices by 28% in 2024 and reaching record highs in 2025.

Where the gold standard was once the primary factor affecting currency, and limiting the amount of printed money in circulation, with finite supply, it did control volatility a situation where an increase in the price of gold can create a trade surplus or help offset a trade deficit.

### **In conclusion**

Events are cyclical. From the East India company world domination to independent states, emerging economies, new supply chains, collective trading blocs, free trade agreements across continents, the breakup of the former USSR, the formation and divergence within the European Union, we see a return to isolationist, protectionist and economic nationalism.

World economies are experiencing fear, uncertainty and doubt, unprecedented challenges, greater fragmentation, unseen critical cyber threats from state actors, intellectual property theft, possible economic destabilisation and trust in fiat currency from cryptocurrencies, and unethical trade practices.

Unfortunately, rather than a golden age, we must all be prepared to endure sustained and growing risks of global political instability and conflict. ■





# India-China rapprochement: what are the long-term prospects?



**Alicia García-Herrero is a Senior Fellow at Bruegel, and Nayanima Basu is a Researcher at Delhi University**

## Introduction

China-India relations, which have long been fraught, were further complicated by the 2020 military standoff on the Himalayan border. The political disruption had a significant impact on Chinese companies' presence in India. And yet, India's dependence on Chinese imports has increased since.

The Indian economy is decelerating at a challenging time for Prime Minister Modi, who governs in a coalition. China could offer a partial solution to India's economic woes by providing manufacturing FDI and creating jobs. The Modi-Xi 'rapprochement' after their encounter at the October 2024 BRICS summit signals that relations could improve. India may be willing to accept targeted investment from China, but relations are unlikely to fully normalise, particularly since the 2025 India-Pakistan military stand-off.

There are three main reasons for this. First, the Indian army remains cautious about the situation at the border and security risks relating to China. Second, the United States under President Trump will exert pressure on Modi not to depend further on China. This is even more relevant in the context of Trump's threat to impose tariffs on India. Third, Indian public opinion on China and the Belt and Road Initiative remains negative.

India is predicted to experience greater growth than China in the coming decades, meaning China could lose its upper hand in economic relations between the two countries. This, however, will depend on how dependent India becomes on China for imports or for jobs through FDI and other channels. The militarised border, India's asymmetric economic dependence on China and China's leadership in the Global South will still shape the relationship even if the Indian economy grows to a similar size to China's. India-China 'rapprochement' is possible but will remain fragile and is unlikely to be maintained in the long run.



## 1 How have China-India relations evolved?

The relationship between China and India has been marked by cooperation and rivalry, with economic engagement offset by tensions and security concerns. Since the installation of Xi Jinping as Chinese President in March 2013 and the election of Narendra Modi as Prime Minister of India in May 2014, relations have remained thorny, and their long-standing border dispute has become even worse.

During President Xi's visit to India in September 2014, the countries aimed to redefine their relationship through a closer developmental partnership to advance common interests and regional and global stability and prosperity. Efforts were made to enhance trade and investment through the Five-Year Development Program for Economic and Trade Cooperation<sup>1</sup>.

Since then, the India-China bilateral relationship has seen positive and negative developments in economy, defence and security. On 16 June 2017, a military face-off between India and China started on the Doklam plateau, a strategically important region at the trijunction of India, China and Bhutan, which lasted for 73 days. On 27 April 2018, Modi went to Wuhan for an informal summit.

Both sides agreed to improve military communications to prevent miscalculations at the China-India border and committed to establishing better crisis management mechanisms (Joshi, 2018). Modi also expressed his concerns about the growing bilateral trade deficit, while Xi agreed to open China's market to Indian products (Kumar and Singh, 2018).

Despite this rather successful Wuhan summit, problems continued to pile up right after, starting with China's push to have India become a member of the Belt and Road Initiative (BRI). Indian public sentiment about China and its BRI remains much more negative than that of the rest of the world (Figure 1).

India is strongly opposed to the BRI for two reasons: first, an important part of the BRI, the China-Pakistan Economic Corridor, passes through Pakistan-occupied Kashmir. China's strong cooperation with Pakistan under the BRI was perceived by India as a potential security threat, which became even more obvious in the lead-up to the 2019 Indian general elections as tensions with Pakistan flared up after a suicide bomber targeted a convoy of Indian paramilitary police in Jammu and Kashmir<sup>2</sup>.

Closer China-Pakistan relations since then have not helped, especially since the terrorist attack in Indian-administered Kashmir on 22 April, which was met with India's 'Operation Sindoor', comprised of multiple strikes on Pakistan. China has played a significant role in supplying Pakistan with advanced weaponry used to shoot down Indian aircraft<sup>3</sup>.

Second, India feared that a successful BRI could put China in a leadership role in the Global South. To some extent, this has happened, evident in China's central role in an expanded BRICS.

*"The relationship between China and India has been marked by cooperation and rivalry, with economic engagement offset by tensions and security concerns"*

India's role as de-facto leader of the G33, a coalition of 47 developing countries coordinating positions on trade and economic issues at the World Trade Organisation (WTO), has lost its lustre as the G33 has become increasingly ineffective. India's reluctance to engage in trade agreements, including the Regional Comprehensive Economic Partnership (RCEP), has not helped it to maintain a leading role in the Global South<sup>4</sup>.

Beyond India's concerns about China's relations with Pakistan and its growing leadership in the Global South, the military stand-off at the Himalayan border in 2020 immediately derailed the economic relationship and high-level contacts between the two countries (Li, 2023).

In the next section we will analyse the causes and consequences of this standoff. It is important to understand that China-India relations can often be seen as a triangle, with the third actor being the United States, particularly since Trump presented his Free and Open Indo-Pacific strategy.

While there have been some signs of tensions easing since the BRICS summit in Kazan in October 2024<sup>5</sup>, doing business together will remain difficult as the uncertainties about bilateral relations have not fully disappeared. In fact, while the Government of India has decided to stabilise bilateral ties with China, military tensions continue to simmer and the chances of a full-fledged conflict cannot be ruled out (Bajpaee and Jie, 2025).

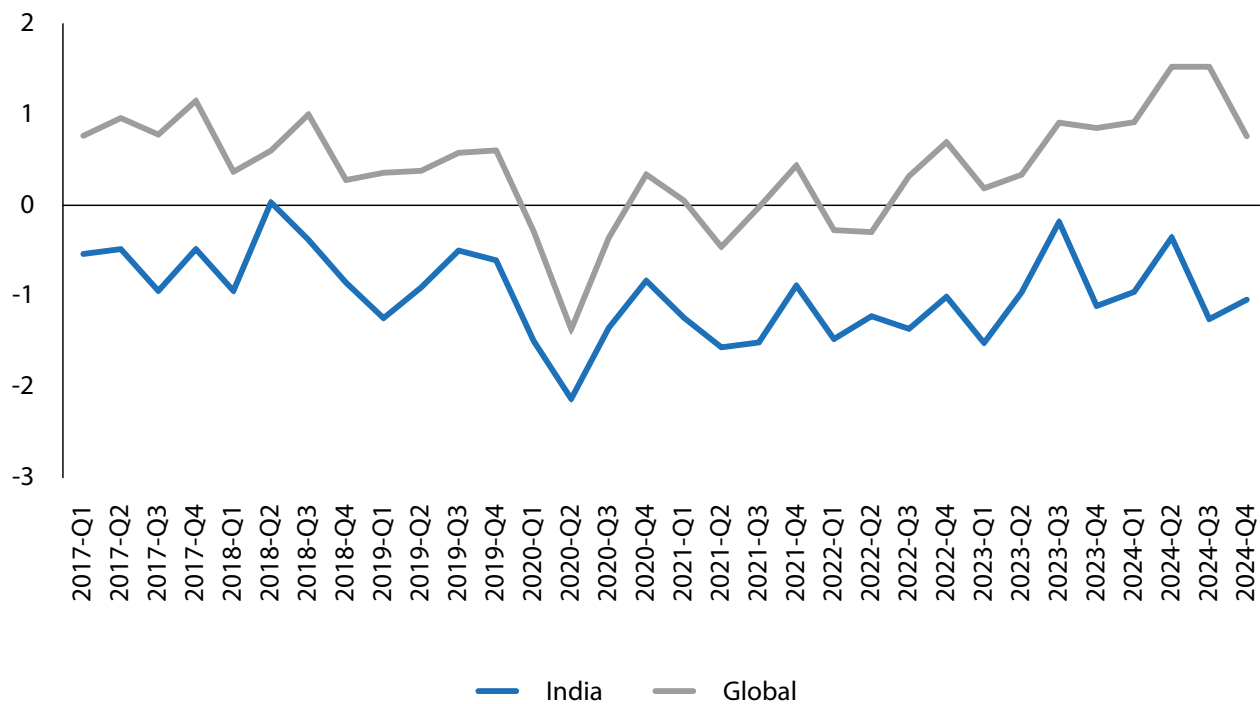
### Economic ties

Economic ties between India and China remain relevant but are very concentrated in Indian imports from China, with minimal Indian exports to China and investment between the two. India has been facing an increasingly large trade imbalance, created by its growing reliance on Chinese imports and stagnating exports to China (Figure 2).

These imports have continued to increase despite Indian efforts to limit imports through non-tariff barriers including quality controls. The trade deficit reached \$100 billion in 2022 and has remained at that level since (Figure 3). China is India's largest trading partner on the import side while it ranks fourth on the export side (Figure 4 and 5).

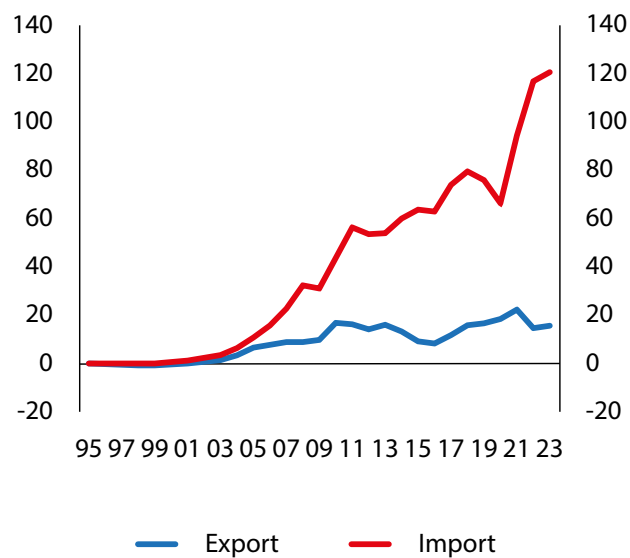
Since Modi came to power, there was an attempt to address India's unequal trade relationship with China by attracting foreign direct investment (FDI) into manufacturing to reduce

**Figure 1. India and global sentiment towards China and the Belt and Road Initiative**



Source: Natixis

**Figure 2. India trade with China (billions \$)**



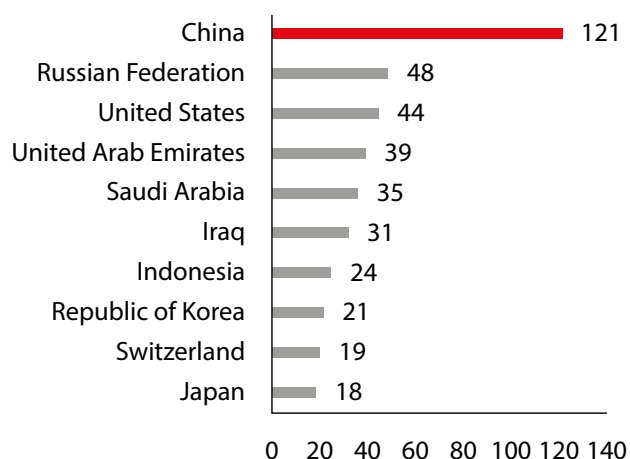
Source: Natixis based on OECD TIVA.

**Figure 3. India trade balance with China (billions \$)**



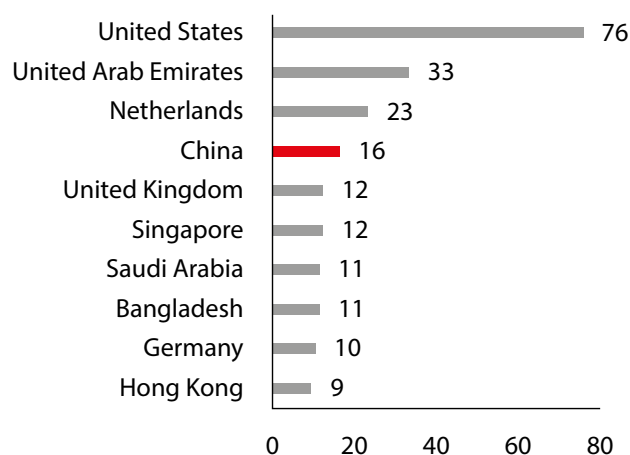
Source: Natixis based on UNCTAD.

**Figure 4. India largest import partners (billions \$)**



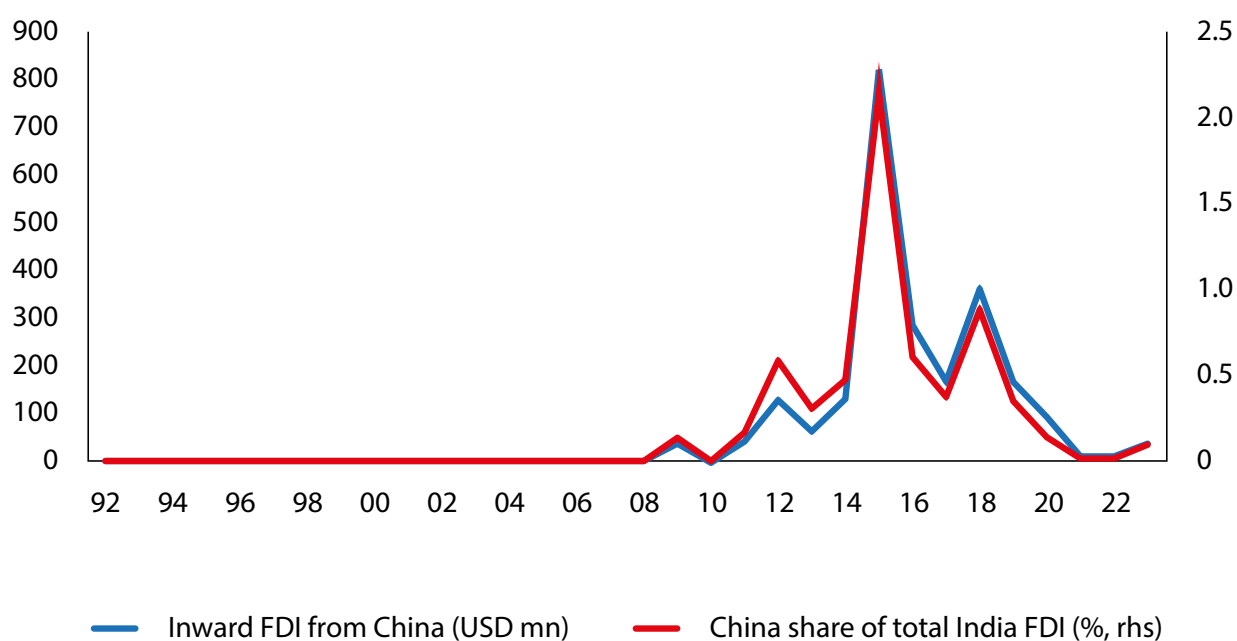
Source: Natixis based on UNCTAD.

**Figure 5. India largest export partners (billions \$)**



Source: Natixis based on UNCTAD.

**Figure 6. India inward FDI from China**



Source: Natixis based on CEIC.

dependency on Chinese imports and create more jobs in the formal economy but with increasingly constraints, especially since the military stand-off in 2020.

This is particularly important for Modi, as the lack of formal jobs was one of the issues that may have led to the rather disappointing result for his party in the 2024 general elections<sup>6</sup>.

However, Chinese FDI into India remains extremely low (Figure 6) and even more so for manufacturing. This can be explained, at least partially, by the many restrictions imposed by India, especially when it comes to Chinese FDI.

China is interested in the Indian market as it is the only country big enough to become the main player in an alternative supply chain. China's core interest would be to avoid India creating its own manufacturing capacity independently of China, which further increases China's interest in investing in manufacturing in India and its exports of intermediate goods.

Chinese investors, instead, seem to be increasingly interested in the Indian market given its strong growth and its size. For example, in 2023, BYD, the largest producer of electric vehicles (EVs) in the world, expressed interest in manufacturing in India by proposing a \$1 billion investment plan in collaboration with a local partner<sup>7</sup>.

While this proposal has not yet received approval from the Indian government, there could be a breakthrough if the situation at the border could be fully normalised. In the same vein, in September 2024, Lenovo announced plans to manufacture artificial intelligence (AI) servers at its facility in Puducherry, India<sup>8</sup>. Additionally, Lenovo has inaugurated a research and development lab focused on AI servers in Bengaluru.

Finally, Shein, the global fast-fashion retailer of Chinese origin, has re-entered the Indian market, after having been forced to abandon it in 2020, through a strategic partnership with the retail arm of Reliance<sup>9</sup>. Fast fashion is not a strategic industry, and it is therefore much easier for it to go through India's investment screening than it is for other sectors.

### Security issues

India and China have experienced a complex and often contentious relationship marked by deep-seated historical tensions, territorial disputes, and periodic escalations. The 1962 Sino-Indian War, triggered by disagreements over the demarcation of the Himalayan border was a significant flashpoint, resulting in a decisive Chinese victory and lingering mistrust.

Since then, the Line of Actual Control (LAC), the de facto border, has been a source of frequent friction, with both countries maintaining large military presences in the region (Joshi, 2018).

Although in second order compared to border clashes, relations between India and the US constitute a second important factor in China-India relations. The official

announcement of the Free and Open Indo-Pacific (FOIP) strategy in 2017, saw the US seek closer relations with India<sup>10</sup>.

In the same vein, the Quadrilateral Security Dialogue (Quad), initially formed in 2007, by President Bush, which went dormant in 2008 due to Australia's fears of provoking China, was resuscitated by Trump in 2017, bringing the US and India closer<sup>11</sup>. How much these security issues may have weighed in the 2020 military stand-off versus other, more economic, reasons, is hard to tell.

Before the 2020 military stand-off in the Galwan Valley, India and China had established border agreements that laid down a series of protocols for the armed forces and diplomats of both sides to follow given the lack of officially recognised borders<sup>12</sup>.

In 2003, then prime ministers Atal Bihari Vajpayee and Wen Jiabao signed a separate pact that led to the appointment of a 'Special Representative' for both sides, entrusted with the task of bringing out a political solution to the border question.

This eventually came to be known as the 'SR Dialogue' and it has become a channel of communication between the countries because they have the political mandate to discuss the border issue.

Finally, in 2012, a Working Mechanism for Consultation and Coordination on India-China Border Affairs (WMCC) was set up with the sole objective of addressing border issues. A similar dialogue mechanism also exists between military commanders in charge of the border on each side, which is generally held at a neutral point along the border.

None of these protocols or the dialogue between special representatives prevented a 2020 stand-off. Its origin could possibly have an economic rationale. In fact, in April 2020, India issued Press Note 3, that sought to restrict FDI from China and other countries that share a land border with India.

The directive stipulated that any entity from a country that shares a land border with India must get government prior approval from the official authorities before investing in India. This also included indirect investments where the beneficial owner is from a country that shares a land border with India<sup>13</sup>.

In May 2020, China's People's Liberation Army transgressed the border leading to a bitter military standoff in the eastern part of Ladakh<sup>14</sup>. This led to a complete plummeting of ties with both sides ramping up troop deployments with a real risk of a military confrontation.

India also took an unprecedented step of banning Chinese apps including Shein, TikTok, WeChat and PUBG Mobile, following the standoff<sup>15</sup>. New Delhi said it took this step to safeguard its national security and sovereignty.

The relationship between Prime Minister Modi and President Xi significantly worsened. When Modi went to Samarkand, Uzbekistan in 2022 for the Shanghai Cooperation Organisation (SCO) Summit, he did not shake hands with Xi<sup>16</sup>. As chair of

G20, India invited President Xi to attend the 2023 summit in New Delhi, but he sent his deputy<sup>17</sup>.

The 2020 standoff was an important wake-up call for India in terms regarding China's massive increasing in military capabilities given the rapid increase in military spending<sup>18</sup> and its more aggressive stance with its neighbours and beyond (Masuda and Mattelaer, 2024).

While both countries have engaged in a plethora of defence dialogues, underlying tensions regarding border security and China's strategic partnerships, particularly with Pakistan, have complicated these discussions and the larger bilateral relationship. The unresolved border issue continues to be a major security concern, with both countries enhancing their military presence along the LAC. Despite occasional agreements to manage border tensions, the security environment remains fragile, with both sides maintaining a cautious stance<sup>19</sup>.

## 2 How important is the recent turnaround?

Despite the negative consequences of the 2020 border standoff, India and China continued to hold steady military and diplomatic communication. Both sides are working to resolve or at least mitigate the faceoff in three phases: disengagement, de-escalation and de-induction (ie. gradual removal) of troops.

The first phase, that of disengagement of troops, or pull-back of troops from a confrontational posture, started in February 2021 but a much clearer step-up in disengagement started after Modi and Xi's meeting in Kazan (Russia) on the sidelines of the BRICS Summit on 23 October 2024.

This important meeting was followed by a meeting between India and China's ministers of foreign affairs on the sidelines of the G20 in Brazil on 19 November 2024. At that meeting, China requested that India ease visa restrictions on Chinese tourists and businesspeople and the countries discussed strengthening transport links and data-sharing on shared rivers<sup>20</sup>.

The question of whether this 'rapprochement' is real remains. On the one hand, both sides have started to implement disengagement processes that entailed not just the pulling back of the troops but also removing temporary structures. And yet, China and India have been actively building infrastructure along the LAC, including roads, bridges and military installations, which has been the main source of tension and the catalyst for standoffs in the past.

Nonetheless, a positive development took place on 26-27 January 2025, when the Foreign Secretary of India, Vikram Misri, went to Beijing. This was the first visit of a high-level official since the military stand-off. During the visit, it was decided that both sides would restart direct flights that first got suspended due to the COVID-19 pandemic and never resumed because of the border standoff<sup>21</sup>.

While clearly positive, the reality is very little action has followed the high-level visits, making the 'rapprochement'

more symbolic, at least in terms of lifting bilateral restrictions, especially on India's side.

## 3 How much is the current rapprochement related to the economic situation?

The thaw in bilateral relations which started last October at the highest level seems to be economically motivated. China's share in India's industrial goods imports has soared over the last 15 years, highlighting a deepening dependency on Chinese products including telecoms, machinery and electronics.

India's reliance on China extends to critical sectors such as pharmaceuticals, electronics, solar power cells, electric vehicles and heavy machinery. India also imports a significant portion of its active pharmaceutical ingredients from China, making its pharmaceutical industry particularly vulnerable to disruptions in Chinese supply chains.

This dependency has been flagged as a national security – or at least economic – concern due to the strategic implications it poses. The two key factors that have fuelled this dependence on China are absence of an ecosystem of innovation and a robust industrial policy.

India's efforts to attract FDI to diversify its supply chain have not fully materialised, and there's an acknowledgment that reducing reliance on China requires substantial investment in research, development and manufacturing capabilities by India's corporate sector.

The several initiatives by the different Modi governments, such as 'Make in India,' officially launched by Prime Minister Narendra Modi in September 2014, and 'Aatmanirbhar Bharat'<sup>22</sup> (or self-reliance) have not led to an increase in FDI, especially in manufacturing. The Production Linked Incentive<sup>23</sup> scheme introduced since 2020 to boost local production has failed to attract investors.

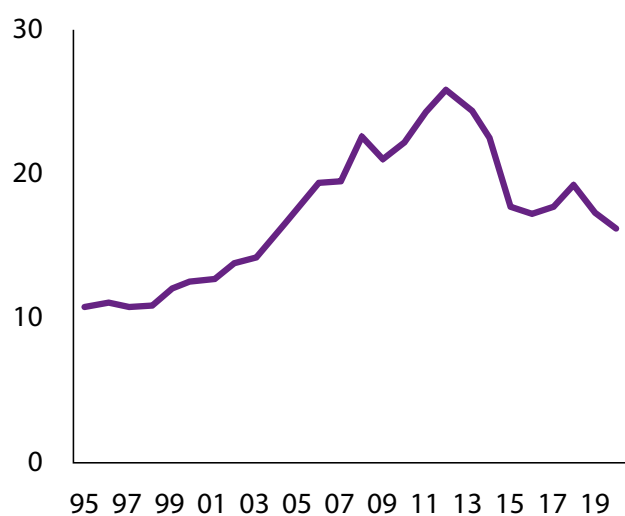
One could argue that the push towards import substitution has worked if measured by the reduction in foreign content of Indian exports, or the so-called 'backward participation in the jargon of global value chains' (Figure 7). But this does not need to be a good thing unless such substitution is a consequence of an increase in competitiveness of Indian products.

The reality is that India's import tariffs are high and have been ramped up even further since 2022 (Figure 8). By making imported goods more expensive, the substitution towards domestic content has accelerated in the past few years but has not really achieved the goal of increasing manufacturing capacity locally.

On the contrary, the share of manufacturing in India's GDP continues to decline and is now 14 percent (Figure 9). Another sign of India not having gained competitiveness is its stagnant share of exports as a percentage of global exports (Figure 10).

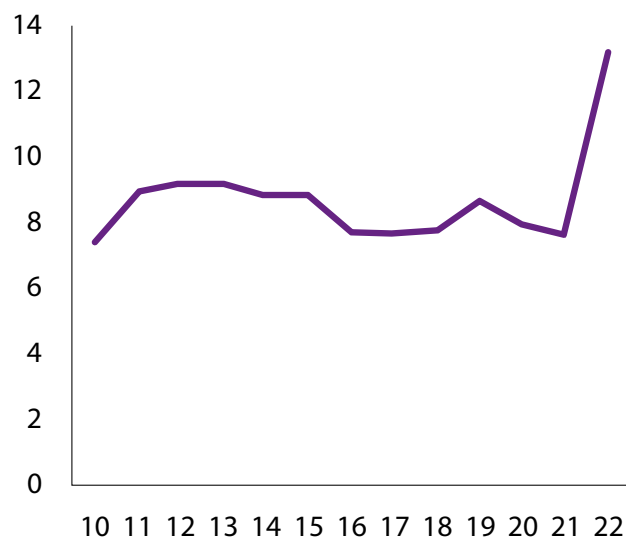
India's lack of external competitiveness, especially against China, is behind its increasing trade deficit and overall dependence on Chinese goods. Prime Minister Modi – who

**Figure 7. Backward participation with the world (% of gross exports)**



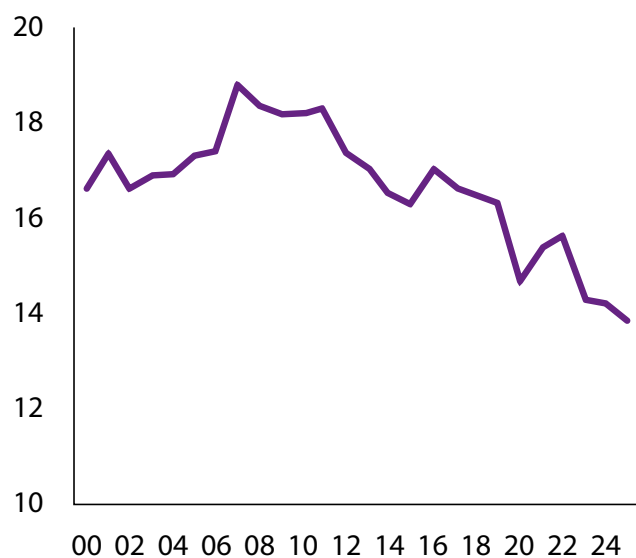
Source: Natixis based on OECD TIVA.

**Figure 8. India Intermediate goods tariff (effectively applied, simple average)**



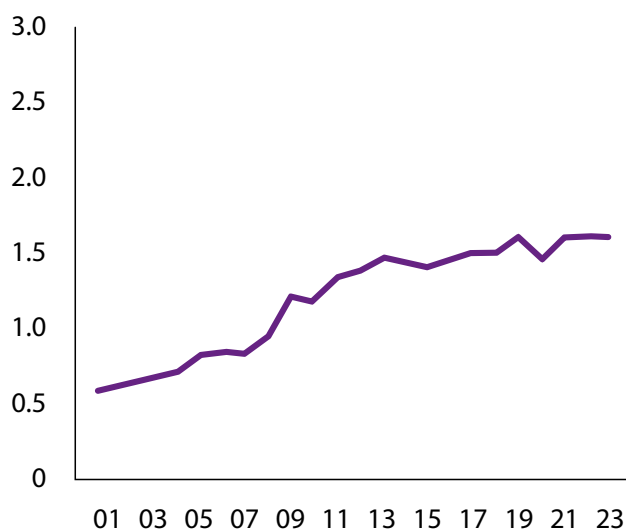
Source: Natixis based on UNCTAD TRAINS.

**Figure 9. India: manufacturing as share of GDP**



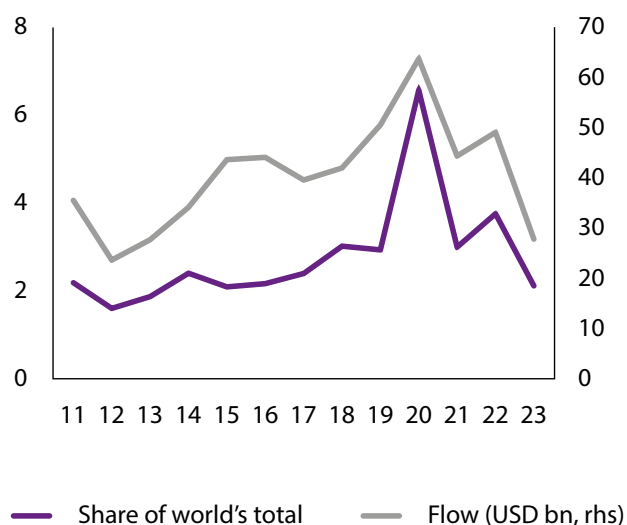
Source: Natixis based on CEIC.

**Figure 10. India: share of global exports**



Source: Natixis based on UNCTAD.

**Figure 11. India: inward FDI flow**



Source: Natixis based on UNCTAD.

is now much more constrained politically compared to his previous two terms as he is in a coalition government – is increasingly focused on the economy.

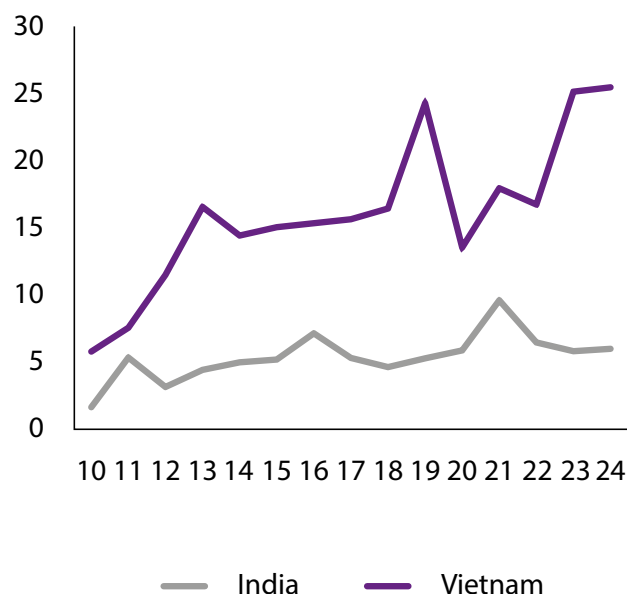
FDI from China, especially in manufacturing, could help create new jobs which the Modi government needs. In fact, many argue that one of the reasons for Modi to have lost part of its constituency during the general elections last May was the lack of job creation<sup>24</sup>.

While Modi might have preferred non-Chinese FDI, India has not been able to attract much FDI, with its global share stagnating at 2 percent (Figure 11). The situation is even worse for manufacturing. Vietnam alone attracts more FDI in manufacturing than the whole of India and the gap is only increasing (Figure 12).

The Chinese government has not issued any official statement explicitly encouraging Chinese investment in India, but it has consistently advocated for a fair and non-discriminatory business environment for Chinese enterprises operating in India<sup>25</sup>. Chinese companies, especially in the EV sector, have been much more outspoken.

For example, SAIC Motor, China's largest automaker, has shown significant commitment to the Indian market through its subsidiary, MG Motor India, which it acquired in November 2023, SAIC, with a 35 percent share, from India's JSW Group. Further emphasising its commitment, SAIC announced plans in May 2024 to invest up to \$2 billion in India by the end of the decade. The investment includes setting up a second manufacturing plant and aims to produce and sell over a million vehicles annually<sup>26</sup>.

**Figure 12. India and Vietnam inward FDI in manufacturing (billions \$)**



Source: Natixis based on CEIC.

BYD has not yet secured approval of its proposal for a \$1 billion investment in India through a joint venture with Megha Engineering<sup>27</sup>. Beyond India's market size, making sure that India remains linked to the Chinese supply chain is important for Chinese companies and even more so for the Chinese leadership as it reduces the West's options for derisking/decoupling.

#### 4 How might US-India relations influence the rapprochement?

In his first term, President Trump sought to build a closer relationship with India, mostly on security issues, through the FOIP strategy and the Quad. Trump met with Modi twice in the weeks after his second presidency started, first for the Quad summit on 21 January and then for a bilateral meeting in Washington DC on 13 February.

This visit ended on a positive note, in part because Modi decided to buy more military equipment from the US and oil and gas while also announcing a reduction of import tariffs on some US exports right before the visit<sup>28</sup>.

Beijing responded cautiously to the Modi-Trump summit, emphasising that their bilateral cooperation should not harm a third country's interests<sup>29</sup>. This response clearly indicates that Beijing is worried about the US meddling with Beijing 'rapprochement' with India and the related business opportunities.

More generally, the Trump administration has been deepening ties with New Delhi through a combination of defence cooperation, trade negotiations and a shared stance on countering China's growing influence. Although Trump is

clearly focused on his 'America First' policy, he has recognised India as a critical economic and strategic partner.

Modi and Trump set a goal to double bilateral trade to \$500 billion by 2030, and negotiations for a trade agreement are underway<sup>30</sup>. The agreement aims to provide security and transparency for American companies interested in India and, reciprocally, for Indian firms in the US.

In this context, the Trump's administration imposition of 'reciprocal' tariffs of 24 percent on India was received very negatively in New Delhi. At the time of writing, the tariffs have been suspended until 9 July, with negotiations ongoing<sup>31</sup>.

The main hurdles are in agriculture, intellectual property and digital trade. Outcomes could range from an interim deal boosting trade to \$300 billion by 2028, to stalled talks risking \$20 billion in losses, or a limited pact phasing in reforms by 2030. A successful deal, especially if accompanied by a trade agreement, could make India an alternative global manufacturing hub which is not overtly dependent on China.

US companies, encouraged by the Trump administration, are seeking this alternative. On 6 May the United Kingdom and India concluded negotiations on a trade deal<sup>32</sup>.

On the EU side, the FTA negotiations, which were relaunched in June 2022, are important for India (with the EU being its largest trading partner on the export side) and for the EU,

which is looking to expand market access but also to offer its companies a different destination to produce, other than China, in line with the EU's China derisking strategy.

While these two deals were expected to be concluded in 2025, Trump's tariff threat is making India put its attention on the US, which could have consequences in terms of a potential delay in the conclusion of negotiations with the EU.

Trump's ability to keep India away from opening up to Chinese foreign direct investment will likely hinge on Trump's final decision on reciprocal and/or sectoral tariffs on India and whether a trade agreement can be finalised.

Without real outcomes on the economic side, Trump's proactive courtship of India might not be enough to avert this risk as India needs to create manufacturing jobs more than ever.

### **5 What to expect in the short run?**

India and China are in regular discussion regarding de-escalation across the LAC, but the process is advancing very slowly and requires sustained dialogue. Trump's push to isolate China and China's disdain for the Quad, further complicate the situation.

India is planning to host the Quad Summit this year, which President Trump may attend, although there is no confirmation yet<sup>33</sup>. On the other hand, Trump threatened



BRICS nations with a 100 percent tariff on all imports into the US if they proceeded with launching a common currency, just hours before his meeting with Modi<sup>34</sup>.

Given the potential constraints from the Trump administration and the Indian Army's own doubts about the de-escalation process (Bloomfield, 2021), any opening must be targeted and not increase India's dependence on China in strategic sectors.

In that regard, India has no plans to remove the restrictions on Chinese FDI under Press Note 3 although it may still grant specific approval of FDI that creates a large number of jobs in the manufacturing sector.

India has already removed the ban on the Shein app, under Reliance control although it seems difficult to imagine that the lifting of the ban will extend to information-related apps such as Tiktok<sup>35</sup>. This is all the more the case since the Indian government cannot really confirm that China is no longer active at the border nor is India which is still expanding infrastructure networks at the LAC.

Against this backdrop, a Modi-Xi meeting at the SCO summit will be important. China holds the rotating presidency from 2024-2025 and will host the next summit. Modi's decision to attend the summit will depend on domestic and external factors.

On the domestic side, India expects China to follow the border protocols and not engage in border incursions by unilaterally changing the status quo. On the economic side, the deceleration of the Indian economy plays in China's favour as India needs to create more jobs in the formal economy and also increase its manufacturing capacity.

Externally, Trump's tariff threat will be key and the confirmation that the US will continue to cooperate militarily with India at the highest end. Modi would be expecting the two agreements signed under the Biden administration on AI and critical and emerging technologies to be maintained<sup>35</sup>. Trump's visit to Delhi for the Quad summit could also be decisive.

Given the rapidly evolving nature of Indo-Chinese and Indo-US relations. Modi is likely to continue pursuing strategic autonomy for India.

## 6 What about the long run?

The current unbalanced state of play, in which China has an economy five times the size of India's, and a much bigger military capacity, is likely to continue for some time, but will change. The growth differential for the next decades is clearly in India's favour.

The Chinese economy has been decelerating for more than 10 years and will continue to do so with GDP growth expecting to hover around 2.3 percent by 2035 and around 1 percent, by 2050.

The further reduction in growth from 2035 stems from China's rapid depopulation (Figure 13) but, also, the fact that the urbanisation process, which is now mitigating the impact of depopulation in productivity and, thus, economic growth,

will be completed (García Herrero and Xu, 2023) (Figure 14). India's demographic dividend remaining positive for at least 15 more years and, even if declining over time, the gap China will remain the same.

Furthermore, India's urbanisation process is still at its infancy, especially when compared with China (with 36 percent urbanisation rate compared to 66 percent for China).

Finally, India's stock of capital is much lower than that of China (Figure 15). Given the massive infrastructure gap, this also explains why the return on investment is so much higher, feeding the positive growth differential for India.

With conservative growth forecasts for India (at 6 percent until 2030, which is below consensus<sup>36</sup>, and coming down to 5.5 percent and 5 percent until 2035 and 2040, respectively, and 4.5 percent by 2050), India's growth will continue to outpace that of China by an increasing margin.

In fact, China's growth is expected to grow by only 2.3 percent by 2035 given the lower labour productivity and return on assets and only 1 percent thereafter until 2050, as the growth engine stemming from urbanisation is exhausted (for more details about China's long-term prospects, please see García Herrero (2023).

With such growth differential, in India's favour, and the Indian rupiah expected to appreciate against the RMB because of the convergence<sup>37</sup>, India should be able to reach China's size by 2050 in dollar terms<sup>38</sup>.

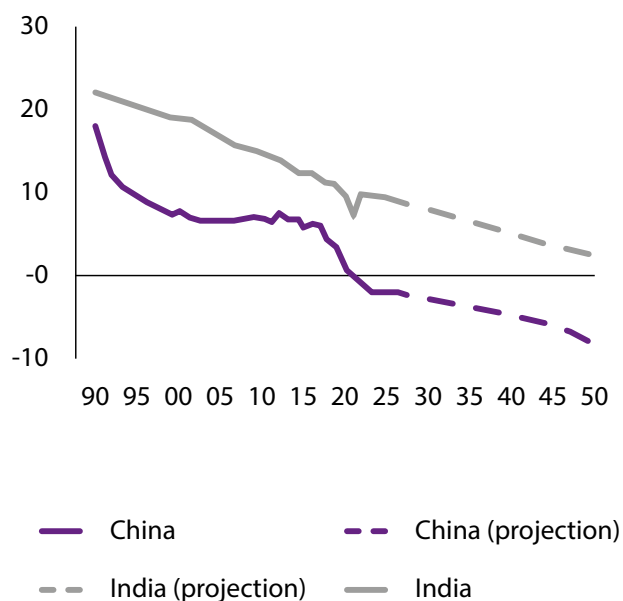
Whether such projection will become true depends on a large number of factors from China and India. China's risks to this growth scenario are mainly on the downside due to the very rapid accumulation of debt and geopolitical tensions with the US. Still, there is potential upside from China's technological upgrade and increasingly dominant role in the Global South.

The latter is particularly important for India since it would come at its expense. India's growth prospects are also at stake. This is yet another reason for India to remain cautious in its relations with China as it might come at a cost in terms of India's influence in the Global South and, especially, its neighbourhood.

As for India, the downside risks to this growth scenario stem from the rather stagnant reform agenda and the very limited attraction of FDI, especially in manufacturing. FDI would be highly beneficial for India to create more jobs in the formal sector, supporting the urbanisation process and also the creation of a middle class but this seems to depend on China, as the West does not seem to be investing enough in India's manufacturing.

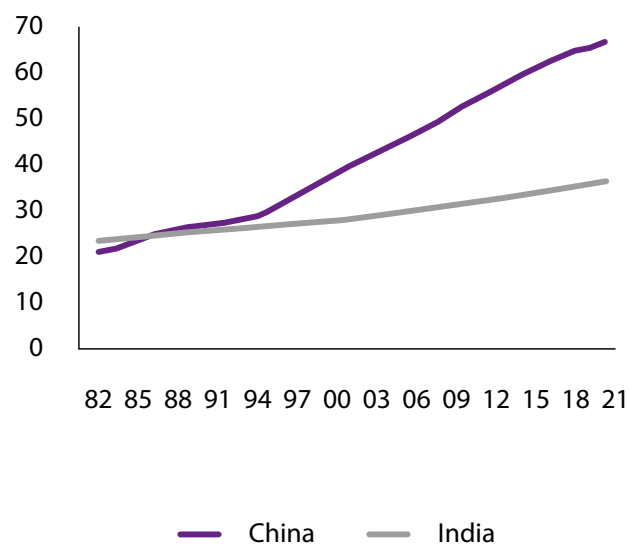
This could of course change if the US puts more emphasis on India as part of its Ind-Pacific strategy but also if India strikes a trade and investment deal with the EU, following its deal with the UK. The growth divide between the North and the South is another important risk as are tensions with Pakistan on the external side.

**Figure 13. China and India rate of natural change of population**



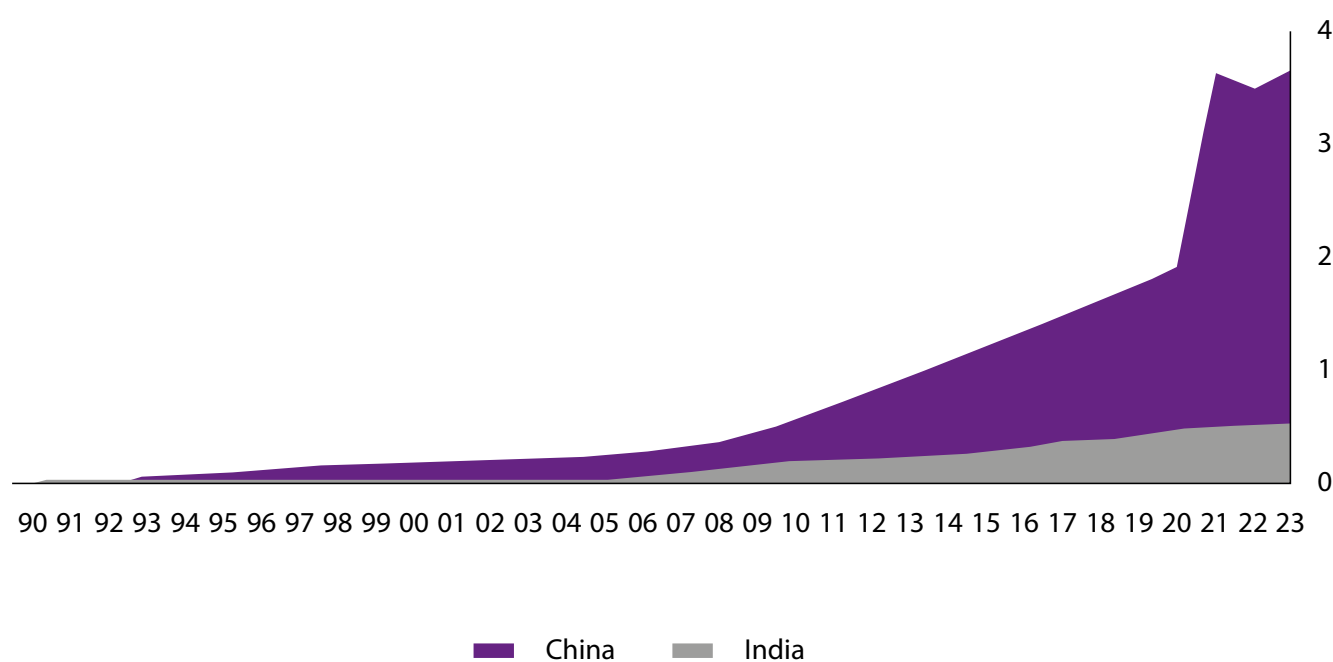
Source: Natixis, World Bank.

**Figure 14. China and India: urbanisation rate (%)**



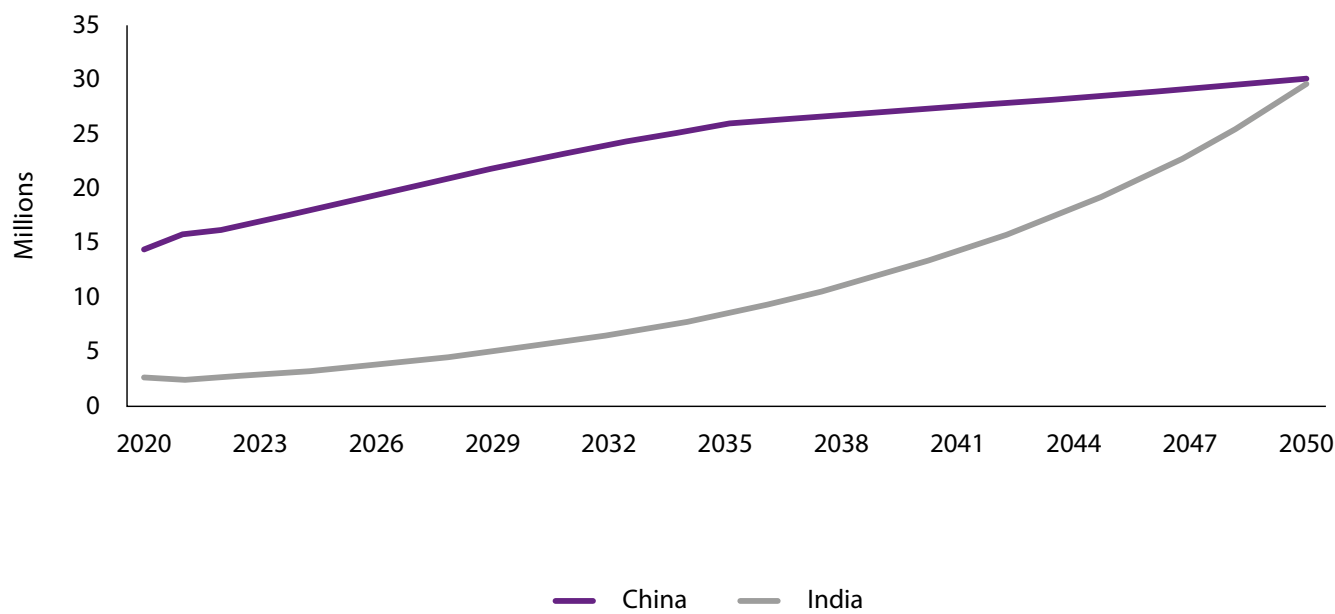
Source: Natixis, CEIC.

**Figure 15. China and India stock of FDI (trillions of \$)**

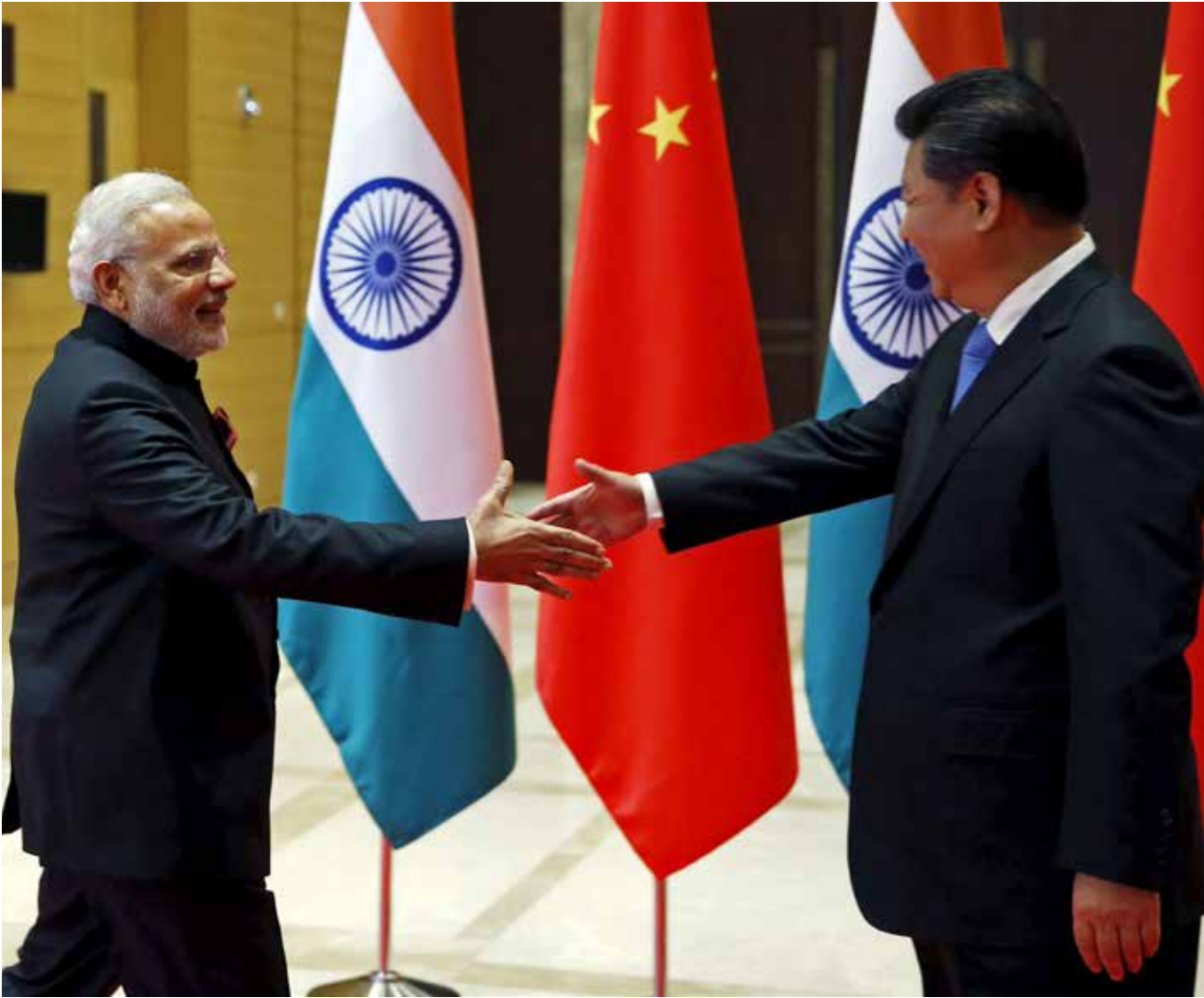


Source: Natixis, CEIC.

Figure 16. Real GDP Forecast (\$ trillion)



Source: Natixis based on IMF.



India's upper hand regarding growth prospects is important to understand China's interest in engaging with India. China has created a web of dependent relations on the economic front with many countries.

This is particularly true for Asia but also beyond. India is an outlier given long-term security concerns. China is fully aware that India is the only economy that can become as large as that of China in the foreseeable future, making fostering economic relations (especially asymmetric ones with China as investor and exporter) crucial.

This is particularly important in the current context of fierce strategic competition with the US. Ultimately, India's increasing economic weight could tilt the balance of power between the US and China.

## 7 Conclusions

China-India relations have never been easy, especially since the 2020 military standoff on the Himalayan border. This sudden severe disruption in political relations also had a major toll on Chinese investment in India, especially e-platforms, which had to abandon the Indian market. At the same time, and ironically, India's import dependence on China has only increased.

Given that the Indian economy is decelerating at a challenging time for Prime Minister Modi, who governs in a coalition, China could offer a partial solution to India's economic woes by providing manufacturing FDI and creating jobs in the formal economy, which is probably behind the Modi-Xi 'rapprochement' after their encounter at the BRICS summit last October.

And yet, this important signalling has not yet led to economic decisions bringing the two countries closer together.

One of the key question marks is which measures to bring the economies closer will go through and it seems clear that it will be targeted Chinese investment into India for manufacturing. And yet, it is very unlikely that relations will fully normalise.

There are three main reasons for this. First, the Indian army remains cautious as to the situation at the border but also more generally in terms of security risks relating to China directly or indirectly (Joshi and Mukherjee, 2018).

Second, Trump will exert pressure on Modi to remain well anchored in the Indo-Pacific strategy and not depend further on China. This is even more the case given the very real tariff threat that Trump has imposed upon India. Third, Indian public opinion is still very negative on China and the BRI.

In the short run, Modi's potential visit to China for the SCO summit later this year is clearly an important event where economic cooperation could be enhanced, in terms of China's new investment in India in the manufacturing sector.

This development needs to be followed against the backdrop of Trump's pressure on India, whether negative through the threat of tariffs to be imposed on Indian exports to the US, but also positive, with Trump's potential visit to India for the Quad summit later in 2025.

Finally, in the long run, the positive growth differential in India's favour should give him the upper hand when it comes to economic relations, which is very different from the current juncture. This, however, will depend on how much India might have become dependent on China not only in terms of imports, which is the case today, but also for jobs through FDI and other potential channels.

While the Modi administration will push for strategic autonomy, the attempts so far have not been successful. More investment from the West (US and/or Europe) could be a way out but it remains stubbornly low.

In other words, India's challenges regarding China – a militarised border, an increasingly asymmetric economic dependence and China's growing leadership in the Global South, including India's neighbourhood, remain important. They make a 'rapprochement' only tactically possible but surely fragile and unlikely in the medium run. ■

### Endnotes

1. See 'Joint Statement between the Republic of India and the People's Republic of China on Building a Closer Developmental Partnership' of 19 September 2014.
2. BBC, 'Kashmir attack: Bomb kills 40 Indian paramilitary police in convoy', 14 February 2019.
3. Leela Jacinto, 'Chinese weapons pass combat test in India-Pakistan clash – with flying colours', *France 24*, 14 May 2025.
4. Surupa Gupta and Sumit Ganguly, 'Why India Refused to Join the World's Biggest Trading Bloc', *Foreign Policy*, 23 November 2020.
5. See press release of 23 October 2024 of the Ministry of External Affairs of the Government of India 'Meeting of Prime Minister with Mr Xi Jinping, President of the People's Republic of China on the margins of the 16th BRICS Summit'.
6. Catherine Davison, '“People had had enough”: Why Modi's victory in India looks like a loss', *Devox*, 10 June 2024.
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# A partner in progress and prosperity

**Sanjay Malhotra is Governor of the Reserve Bank of India**

**T**he Indian economy has demonstrated remarkable resilience and dynamism. Over the past four years (2021-22 to 2024-25), it has recorded an average annual growth rate of 8.2 per cent. It was and continues to be the fastest-growing major economy in the world. This is a significant step up from the average growth rate of 6.6 per cent in the preceding decade (2010 to 2019).

Even this year, our growth is expected to remain robust at 6.5 per cent. This is despite the tremendous increase in uncertainty and volatility in global financial markets. While this rate is lower than in recent years and falls short of India's aspirations, it remains broadly in line with past trends and the highest among major economies.

No wonder, over the last ten years, we have leapfrogged from the tenth largest economy to the fifth. In terms of purchasing power parity, we are already third. Even nominally, we are poised to become the third largest economy shortly. We aspire to become *Viksit Bharat*, ie. a developed economy by 2047, when we complete 100 years of our independence.

While there is indeed a scope for India's growth trajectory to rise over the medium to long-term, I am sanguine of our continued success. There are a lot of positive factors that give me this confidence. Let me outline a few of these.

## **Policy continuity and stability**

First and foremost, we are all aware of the research that shows that political and policy stability with certainty are prerequisites for long-term planning of investments to fuel growth in any economy. Our vibrant democracy has been able to ensure the same, especially since the initiation of economic reforms, despite change of political parties in government.

Economic liberalisation focusing on market-oriented policies has been a consistent theme across successive governments. While the pace and specific focus of reforms may have varied from time to time, the commitment to a more market-oriented economic structure has not changed.

In a phased manner, almost all sectors have been opened up to 100% foreign direct investment (FDI). Almost 90% of the FDI is now under the automatic route. In the recent years, we have introduced a series of liberalisation measures to further open up the economy, particularly in key sectors such as

defence, insurance, petroleum & natural gas, telecom, and space<sup>1</sup>.

## **Financial stability**

Second, while policy continuity and stability are prerequisites, they in themselves do not ensure financial stability, which is the bedrock on which a strong economy is built. Financial stability is essential for businesses and people to make expenditure and investment decisions with confidence. India's financial sector is strong and vibrant, efficiently catering to funding requirements of various economic agents.

**Financial sector:** the banking sector, which continues to meet the large funding requirements of the economy, has demonstrated resilience with healthy balance sheet. The soundness of scheduled commercial banks (SCBs)<sup>2</sup> has been bolstered by strong profitability, lower non-performing assets and adequate capital and liquidity buffers.

The health of the non-banking financial companies (NBFCs) sector is also robust. Bank credit growth although moderating in recent months, continues to be in double digits (about 12 per cent) compared to an average of about 10.5 per cent in the last 10 years.

We are committed to further enhancing the capacity, responsiveness, and resilience of the banking and non-banking financial sectors with emphasis on balancing regulation with efficiency and stability. While offering excellent opportunities for investment, as private debt to GDP is still on the lower side, the banking sector is poised to meet the investment needs of the society and industry.

**Capital markets:** the Indian capital markets – equity and debt – have increasingly deepened, providing avenues for market-based funding to businesses. India's capital markets have witnessed record participation from retail and institutional investors, channelizing savings into productive investments.

Today, there are almost 106 million unique demat accounts and more than 54 million unique mutual fund accounts. The stock market has delivered returns at a staggering 11 per cent CAGR over the last twenty years.

With more than 500 listed companies having a market capitalisation of more than 1 billion USD each, the capital

market offers enormous opportunities to participate in India's growth story. Indian financial markets offer seamless entry and exit for foreign investors, reflecting the maturity of its economy.

**External sector:** India's forex market has the required depth and liquidity to weather pressures, such as seen in the last few months. India's current account deficit (1.3 per cent of GDP during April-December 2024) remains eminently within manageable limits, supported by robust services exports<sup>3</sup> and private remittances.

Even in the recent volatile period, the Indian rupee (INR) has moved in an orderly manner and performed relatively better compared to its peers, reflecting strong macroeconomic fundamentals, adequate foreign exchange buffers and depth of our foreign exchange market.

Gross foreign direct investment (FDI) inflows to India increased to 75.1 billion USD in April-February 2024-25 from 65.2 billion USD during the same period a year ago, reflecting foreign investors continued confidence in the Indian economy.

Net FDI inflows, however, moderated during this period due to higher repatriations and outward investment, which is a sign of a mature market where foreign investors can enter and exit smoothly, reflecting positively on the Indian economy.

India's foreign exchange buffer continues to be strong. As on April 18, 2025, India's foreign exchange reserves at 686.1 billion USD covers over 11 months of import and 96 per cent of external debt outstanding at end-Dec 2024.

**Price stability:** the role of price stability in fostering sustainable growth and economic resilience is paramount. Monetary policy in India has played a stabilising role, containing inflationary pressures through coordinated action with fiscal authorities.

India adopted a flexible inflation targeting framework in 2016, which has significantly strengthened policy predictability: inflation levels and volatility have come down markedly, inflation expectations are better anchored, and the transmission of monetary policy has improved.

In view of the benign inflation outlook and moderate growth, monetary policy has turned accommodative. We have reduced policy interest rates cumulatively by 50 bps this year since February 2025.

### **Fiscal prudence and efficiency**

Fiscal policies of the government have a critical role in catalysing and sustaining economic development by ensuring that savings and public funds are used efficiently in productive sectors. India continues to demonstrate fiscal prudence to foster faster and inclusive growth.

Its approach to the pandemic is a case in point. India adopted a calibrated approach to the pandemic. Rather than front-loading stimulus packages, as most countries did, India adopted a flexible and agile approach to support the vulnerable sections of society and small firms.

*"Economic liberalisation focusing on market-oriented policies has been a consistent theme across successive governments. While the pace and specific focus of reforms may have varied from time to time, the commitment to a more market-oriented economic structure has not changed"*

This enabled a resilient recovery as it was followed up with enhanced capital expenditure and concerted push to manufacturing. The government is now committed to fiscal consolidation after the pandemic-induced stimulus, maintaining a focus on reducing the fiscal deficit without compromising on expenditure quality ie. growth inducing spending. The central government's fiscal deficit to GDP ratio has declined from 9.2 per cent in 2020-21 to 4.8 per cent in 2024-25 and it is budgeted to moderate further to 4.4 per cent in 2025-26.

This is in stark contrast to rising debt levels in some of the advanced economies. India's public debt to GDP ratio at 81.3 % (in 2024) is reasonable<sup>4</sup>, with the world's top 10 economies other than Germany having higher public debt than India. The progressive fiscal consolidation in India has enhanced space for the private sector to raise resources for investment.

Moreover, government spending is better targeted. The quality of expenditure has improved. The share of central government's capital expenditure as a percentage of GDP has surged from 1.7 per cent in 2019-20 to 3.1 per cent in 2024-25. Including the capital grants in aid to the states, it has increased to 4.3 per cent in 2025-26<sup>5</sup>.

The Union government's borrowings this year are budgeted to be lower than the effective capital expenditure, signifying their use for productive purposes which have a higher multiplier effect. Various measures have been taken to improve outcomes of government expenditure. One such example is the Direct Benefit Transfer, which is estimated to have brought savings of about 40 billion USD (until March 2023)<sup>6</sup>.

Digitalisation of various government programmes like public distribution scheme with Aadhar as the backbone have also resulted in huge savings. Just in time flow of funds to State government has helped the Union government improve its cash flow management.

### **Thrust on infrastructure**

Infrastructure is important for economic development. Over the last several years, the country led by the central government has invested heavily in physical infrastructure. It

is also incentivising capital expenditure by state governments, especially in urban development, power and tourism.

From highways to renewable energy grids to sea ports, airports and railways<sup>7</sup>, India is building the backbone to support sustainable and inclusive growth for decades to come. This is not only improving connectivity but also creating multiplier effects, stimulating demand across various sectors. This is also bringing down logistics cost for businesses considerably and improving productivity and competitiveness.

### **Renewed focus on manufacturing**

Manufacturing is key to inclusive development and employment. We are focused on a *Atmanirbhar Bharat*, that is, a self-reliant India. India's manufacturing sector is gaining momentum and emerging as a potent sector for investment, with support from policy measures such as the Production-Linked Incentive (PLI).

The PLI targets 14 diverse sectors<sup>8</sup>. This is showing results. Mobile phone exports have increased by almost 10x<sup>9</sup> from 2018-19 to 2023-24. Similarly, exports of solar cells and modules have jumped 20x<sup>10</sup> in the same period.

Proactive government policies also present unparalleled opportunities for investment in sunrise sectors such as space, semiconductors, renewable energy, electric vehicles (EVs) etc. India is positioning itself as a critical link in global supply chains, encouraging local sourcing and manufacturing. It is also becoming a global SaaS innovation hub, especially in generative AI.

### **Demographic dividend**

With one of the youngest populations having a median age of 28 years<sup>11</sup>, India is poised to harness the demographic dividend. To fully exploit the potential, Government has launched a number of programmes for skilling, entrepreneurship and apprenticeship. This will enhance productivity and growth.

Labour market conditions in India are showing positive trends<sup>12</sup>, particularly with the increasing participation of women in the workforce. The Labour Force Participation Rate (LFPR) has increased to 60.1% in 2023-24 from 57.9% in the previous year and 49.8 in 2017-18.

### **Innovation**

To take further advantage of the huge human resources, we need to move further up the value chain. It is encouraging to note that India is fast becoming a nation of job creators rather than job seekers. When I left college, getting a job in a MNC was the preferred choice. None took up the challenge of starting a venture of his own.

In recent years, however, a large number of engineering and management graduates are taking to entrepreneurship and start-ups. As a result of the entrepreneurship culture that this generation is embracing, we have about 150,000 recognised start-ups. We have a vibrant start-up ecosystem with government support coming in through programmes like Start Up India, Digital India and Atal Innovation Mission.

We are home to the third largest number of unicorns, some of which are in high tech areas like Artificial Intelligence, fintech, and renewable energy, to name a few. In the Global Innovation Index, India has risen from a rank of 81 in 2015 to 39 in 2024. It is first among lower middle-income countries.

### **Continued focus on ease of doing business and reforms**

The growth is steered by robust economic reforms which have strengthened the foundations for long-term economic prosperity. These reforms include the flexible inflation targeting framework (FIT), the insolvency and bankruptcy code, goods and services tax (GST), consolidation of public sector banks, rationalisation and reduction in corporate tax.

The Indian government has repealed about 1,500 obsolete laws. 180 provisions have been decriminalised and more are planned. These reforms along with conducive policy environment have improved efficiency<sup>13</sup>, productivity, and competitiveness across different sectors.

The government is committed to further reduce regulatory burden, as is evident from the budget announcement earlier this year to set up a high-level committee for regulatory reforms in all non-financial sectors. She highlighted the role of reforms as the fuel for growth.

The Union Budget aims to initiate transformative reforms across six domains – taxation, power sector, urban development, mining, financial sector and regulatory reforms. Moreover, an Investment Friendliness Index of States will be launched to further the spirit of competitive cooperative federalism. A comprehensive review of the Income Tax Act, 1961 to make it concise, lucid and easy, and thereby reduce disputes and litigations, is also underway.

The Reserve Bank too is committed to ensure that our regulations balance the objectives of stability and efficiency. For this purpose, the regulatory review authority (RRA) will further expand, deepen and expedite the process of reviewing and rationalising regulations.

### **Digitalisation**

India's digital transformation, recognised worldwide, has emerged as a significant enabler of ease of doing business and ease of living and an important driver of economic growth and innovation. Conducive government and regulatory policies, increasing digital penetration, and a young and aspiring demography have fostered this vibrant ecosystem.

The government has invested in a number of digital building blocks like the JAM trinity, UPI, GSTN, ONDC, Digilocker. Digitalisation is improving efficiency, raising productivity, enhancing formalisation and promoting inclusiveness in the economy. Take any domain of the government and one will find that digitalisation and e-governance have enhanced turnaround times, reduced costs and improved customer satisfaction levels.

Digitalisation in the department of revenue not only enhanced the tax buoyancy but also improved customer experience and processing of returns. Tax buoyancy for personal income

tax in the last four years<sup>14</sup> was 2.1. On an average, it now takes less than 10 days to process income tax returns in India: down from 93 days in 2014. In contrast, in some countries, it still takes months to get their tax refunds.

The Reserve Bank is also promoting and nurturing digitalisation and innovation. The Unified Payments Interface (UPI) is one such example. Processing about 18 billion transactions in a month, it is setting global benchmarks in seamless, secure, real-time systems. UPI has demonstrated how public digital infrastructure can empower private sector innovation for promoting financial inclusion.

Our encouragement and support extend beyond the payment space to the broader fintech ecosystem through various initiatives including the regulatory sandbox. The Unified Lending Interface (ULI) which is currently in a pilot phase has the potential to transform the lending space. The ULI is expected to transform lending and access to finance just as UPI did to payments.

## Conclusion

India continues to be an economy supported by stability

– monetary, financial and political; policy consistency and certainty; congenial business environment; and strong macroeconomic fundamentals.

At a time when many advanced economies are facing economic headwinds and a deteriorating economic outlook, India continues to offer strong growth and stability making it a natural choice for investors seeking long-term value and opportunity.

Furthermore, our strong domestic demand<sup>15</sup> and relatively lower dependence on exports cushions the Indian economy from external spillovers.

India offers a policy ecosystem that is transparent, rule-based, and forward-looking – an ideal setting for long-term and productive investments. As the world's fastest-growing major economy, India is not just a destination for investment – it is a partner in prosperity.

Together, we have the chance to shape the future – not only for India but for a better world. I invite you to be a part of this journey, to collaborate, innovate, and invest in India. ■

## Endnotes

1. FDI in the Defence sector has been increased to 74 per cent under the automatic route for companies seeking new industrial licenses. The Telecom sector now permits 100 per cent FDI through the automatic route. Similarly, the FDI cap in the Insurance sector was raised from 49 per cent to 74 per cent, and as announced in the Union Budget 2025, it will further rise to 100 per cent - with the condition that the entire premium is invested within India.
2. The gross non-performing assets (GNPA) of scheduled commercial banks (SCBs) declined to a 12-year low of 2.42 per cent and their capital to risk weighted assets (CRAR) at 16.5 per cent at the end of December 2024.
3. India's services exports recorded a growth of 13.1 per cent during 2024-25 (April-February), despite global economic order shrouded with heightened uncertainty, on the back of software and business exports. Global Capability Centres (GCC) have emerged a key driver of services exports over the last few years, with notable contribution to India's exports of software and business services. With more than 1,800 GCCs, the sector is expected to expand from \$64.6 billion in 2024 to \$110 billion by 2030.
4. It is projected to decline to 75.8 percent in 2030 (IMF World Economic Outlook, April 2025).
5. 4.3 per cent in 2025-26 (Budget Estimates).
6. <https://dbtbbharat.gov.in/static-page-content/spagecont?id=18>
7. Infrastructure sector has received priority attention with National Infrastructure Pipeline (NIP), National Monetisation Pipeline (NMP) and PM Gati Shakti as the flagship programmes. The National Highway network expanded by 60 per cent to 1,46,145km in 2024. PM Gati Shakti is streamlining over ₹6.38 lakh crore worth of road projects for seamless logistics. Railways have launched 136 Vande Bharat trains and identified 1,337 stations for upgradation under the Amrit Bharat Station Scheme. Metro networks have grown from 248km to 1,011km across 20+ cities, while operational airports increased from 74 to 159. India's aviation sector has witnessed significant expansion with 545 routes operationalised under the Ude Desh ka Aam Nagrik (UDAN), aimed at improving air connectivity. With 158 operational Airports and the construction of 84 airports over the last decade, India's aviation network is rapidly evolving.
8. Mobile, pharmaceuticals, medical devices, automobile and its components, solar PV, electric vehicles, and advanced chemistry cell (ACC) batteries.
9. 1.6 billion USD in 2018-19 to 15.6 billion USD in 2023-24 and 18.3 billion USD in 2024-25 (Apr 2024 - Jan 2025).
10. From 0.1 billion USD in 2018-19 to 2 billion USD in 2023-24 (1 billion USD for the period April- January 2024-25).
11. Nearly 65 per cent of India's population is under the age of 35, with a median age of just 28 years, significantly lower than the other major emerging economies.
12. The unemployment rate has improved to 3.2 per cent during 2023-24 from 6% in 2017-18. LFPR for women increased to 41.7 per cent from 23.3 per cent over the same period. Formal employment has further strengthened as evidenced by the Employees' Provident Fund Organisation (EPFO) payrolls data - net payroll additions rose by 4.2 per cent in Q3:2024-25.
13. In the Global Competitiveness Index 2024, India ranks 39<sup>th</sup> among 67 economies, reflecting improved business efficiency.
14. Personal Income Tax Buoyancy: 2021-22: 2.29; 2022-23:1.42; 2023-24: 2.61; 2024-25: 1.94.
15. Domestic demand contributes about 90% to GDP whereas merchandise exports contribute about 12% of GDP which is much lower compared to some of our peers.

This article is based on a keynote address at the US-India Economic Forum organised by the Confederation of Indian Industry (CII) and US India Strategic Partnership Forum (USISPF), Washington DC, April 25, 2025.

# Indian tiger





**The global order is in a precarious state, and there is a reconfiguration of the structures of globalisation. Tom Page addresses India's economic ascendancy, its innovation and influence in a realigning global order**

## Introduction

The global order is in a precarious state, with the return of great power rivalry, the resurgence of protectionism, and the increase in economic interdependence creating a volatile ecosystem. The post-World War II multilateral framework, once a bedrock of global stability, appears frayed and out-of-date. The rules that have underpinned the global economy for over fifty years are fracturing.

Yet, this period of upheaval should not be viewed as collapse but rather as a realignment—a reconfiguration of the structures of globalisation itself. How will the global order look in the future? What are the trends to watch? What will be India's role in this realignment?

This article addresses these questions by focusing on technological innovation in the Indian economy—specifically in artificial intelligence (AI), financial technology (fintech), and trade finance—and examining India's evolving role in the global order, particularly its relations with the Global South, Africa, the United States, Europe, and China.

India, with a population exceeding 1.4 billion and a GDP projected to reach \$5 trillion by 2027, is emerging as a pivotal player in this new global landscape<sup>1</sup>. Its vibrant tech ecosystem, fuelled by government initiatives like Digital India and Make in India, is driving innovation at an unprecedented pace.

Meanwhile, India's strategic diplomacy, exemplified by initiatives like the India Think Tank Forum 2025, is redefining its influence, particularly in advocating for a resilient global order<sup>2</sup>. This article explores how India's technological advancements and geopolitical strategies are shaping its economic and global trajectory.

## The Indian economy: a foundation for global influence

India's economy is on a robust growth trajectory, with the National Council of Applied Economic Research estimating a GDP growth rate of 7.4% for 2022–2023<sup>3</sup>. By 2035, the National Association of Software and Service Companies (NASSCOM) projects that AI alone could contribute \$967 billion to India's economy, accelerating its path to becoming a \$5 trillion economy<sup>4</sup>. With over 2,000 startups in Bengaluru and IT exports exceeding \$50 billion annually, India's tech sector is a global powerhouse<sup>5</sup>.

Government policies, including the IndiaAI Mission and Digital India, are fostering innovation, digital infrastructure, and financial inclusion, positioning India to capitalise on the global realignment.

## Artificial Intelligence: powering India's economic future

India's AI market is projected to reach \$17 billion by 2027, growing at a compound annual growth rate (CAGR) of 18.2% from 2025 to 2034<sup>6</sup>. With 16% of the world's AI talent—second only to the United States—India is a hub for AI innovation<sup>7</sup>. The IndiaAI Mission, backed by ₹10,300 crore (\$1.2 billion), aims to bolster AI infrastructure by procuring 18,000 GPUs for startups and researchers<sup>8</sup>.

## Trends in AI innovation

- **Cross-sectoral impact:** AI is transforming healthcare, agriculture, education, and manufacturing. In healthcare, AI-driven diagnostics and telemedicine platforms are improving access in rural areas, reaching over 50 million users in 2024<sup>9</sup>. In agriculture, precision farming tools powered by AI are boosting yields by 15–20% in pilot projects<sup>10</sup>.
- **Startup ecosystem:** India has witnessed a 14-fold increase in AI startups since 2000, with Bengaluru filing over 400 AI patents annually<sup>11</sup>. Venture capital investments in AI startups reached \$1.5 billion in 2024, signalling strong global confidence<sup>12</sup>.
- **Responsible AI:** the government is emphasising ethical AI development, with frameworks to address bias, transparency, and data privacy, aligning with global standards set by organisations like UNESCO<sup>13</sup>.

## Case study: Srijan Centre for Generative AI

In 2024, IndiaAI and Meta launched the Srijan Centre for Generative AI at IIT Jodhpur, focusing on education, mobility, and healthcare applications<sup>14</sup>. The Centre promotes open-source AI models, fostering collaboration between academia and industry. The YuvAI Initiative, a parallel effort, aims to train 100,000 youth in AI skills by 2026, addressing the talent gap and reinforcing India's position as a responsible AI leader.

## Projections

By 2035, AI is expected to contribute \$15.7 trillion to India's economy, creating 400,000 jobs by 2025<sup>15</sup>. However, challenges such as talent shortages and US restrictions on advanced GPU exports could hinder progress. Scaling AI infrastructure and ensuring ethical governance will be critical to sustaining growth.

## Fintech: redefining financial inclusion

India's fintech market is projected to reach \$150 billion by 2025, driven by a 600 million-strong smartphone user base and the Unified Payments Interface (UPI), which processes over 500 million daily transactions valued at \$2.4 trillion in June 2023<sup>16</sup>.

Fintech is the leading adopter of AI, with 18% of firms using AI for risk management and compliance, compared to a 9% cross-sector average<sup>17</sup>.

## Trends in fintech advancements

- **AI-Driven personalisation:** AI enhances customer experiences through chatbots, virtual assistants, and predictive analytics. Machine learning models improve credit scoring, enabling loans for 20 million underserved users in 2024<sup>18</sup>.
- **UPI's global reach:** UPI's success has inspired crossborder payment initiatives, with countries like Singapore and the UAE adopting similar systems. In 2024, UPI expanded to seven countries, facilitating \$10 billion in remittances annually<sup>19</sup>.

- Regulatory support: the Reserve Bank of India (RBI) promotes digital wallets, payment banks, and sandbox environments, fostering innovation while ensuring stability through measures like the Personal Data Protection Act<sup>20</sup>.

#### Case study: Paytm's AI-powered lending

Paytm, a fintech giant, uses AI to assess loan eligibility for users without formal credit histories, analysing alternative data like mobile usage and transaction patterns<sup>21</sup>. By 2024, Paytm disbursed over 10 million micro-loans, empowering small businesses and rural entrepreneurs. This model has reduced loan default rates by 30% through AI-driven risk assessment, showcasing fintech's role in financial inclusion.

#### Projections

The fintech sector is expected to grow at a CAGR of 23.9% from 2023 to 2027, with mobile wallets and Buy Now, Pay Later (BNPL) services leading the charge<sup>22</sup>.

Partnerships between fintech firms, banks, and AI developers will drive innovation, but cybersecurity and regulatory compliance remain critical challenges.

#### Trade finance: streamlining global commerce

Trade finance in India is undergoing a digital transformation, leveraging AI, blockchain, and fintech to enhance efficiency and support small and medium enterprises (SMEs). India's export market, valued at \$776 billion in 2023, is a key driver of economic growth<sup>23</sup>.

#### Trends in trade finance

- Blockchain for transparency: blockchain platforms streamline letter-of-credit processes, reducing transaction times by up to 50%<sup>24</sup>.

*"India's economic trajectory, powered by AI, fintech, and trade finance innovations, is reshaping its role in a realigning global order"*

Cryptographic protocols enhance security, mitigating fraud risks for \$100 billion in annual transactions<sup>25</sup>.

- AI for risk management: AI algorithms detect fraudulent transactions and optimise supply chain financing, reducing risks for exporters and importers by 25% in pilot programmes<sup>26</sup>.
- SME empowerment: fintech loans and AI-driven logistics platforms are enabling SMEs to compete globally, with SME exports growing 12% annually<sup>27</sup>.

#### Case study: HSBC India's blockchain platform

HSBC India's blockchain-based trade finance platform, launched in 2023, digitises letter-of-credit processes, reducing paperwork and transaction times by 40%<sup>28</sup>. Integrated AI tools provide real-time risk assessment, benefiting SMEs in sectors like textiles and agriculture. This platform has facilitated \$500 million in SME exports since its inception, highlighting India's leadership in trade finance innovation.

#### Projections

By 2030, AI and blockchain adoption in trade finance is projected to reduce transaction costs by 20–30%, boosting SME participation in global trade by 30%<sup>29</sup>. Regulatory



frameworks must evolve to address cybersecurity and ethical challenges to sustain this growth.

### India's role in the global order

As the global order realigns amid great power rivalry and protectionism, India is emerging as a linchpin, balancing economic ambition with strategic diplomacy.

The India Think Tank Forum 2025, hosted by the Observer Research Foundation, underscores India's commitment to shaping a resilient global order through inclusive governance, sustainable development, and technology-driven solutions<sup>30</sup>. India's relations with the Global South, Africa, the United States, Europe, and China reflect its multifaceted role.

### The Global South: a voice for equity

India positions itself as a leader of the Global South, advocating for equitable global economic structures. Through forums like the G20 and the Voice of Global South Summit, India champions debt relief, climate finance, and technology transfers.

In 2023, India's inclusion of the African Union in the G20 marked a significant step toward amplifying developing nations' voices<sup>31</sup>. India's Digital Public Infrastructure (DPI), including UPI and Aadhaar, is being shared with countries like Sri Lanka and Nigeria, fostering digital inclusion for over 100 million users across these nations<sup>32</sup>.

### Africa: a strategic partner

India's engagement with Africa is deepening, with trade reaching \$100 billion in 2023<sup>33</sup>. AI and fintech collaborations are central to this partnership. For instance, Indian fintech firm PayU is expanding digital payment solutions in Nigeria, processing \$5 billion in transactions annually<sup>34</sup>.

AI startups are partnering with African universities to develop agritech solutions, increasing crop yields by 10% in pilot regions<sup>35</sup>. India's concessional loans and capacity-building programs, such as the India-Africa Forum Summit initiatives, strengthen economic ties.

### United States: a tech-driven alliance

The US-India relationship is anchored in technology and innovation. The Initiative on Critical and Emerging Technology (iCET), launched in 2022, fosters collaboration in AI, semiconductors, and quantum computing<sup>36</sup>.

However, US restrictions on GPU exports pose challenges to India's AI ambitions, delaying compute capacity expansion by an estimated 18 months<sup>37</sup>.

Despite this, joint ventures like the Srijan Centre with Meta highlight the potential for co-innovation. Trade between the two nations reached \$120 billion in 2023, with tech services accounting for 40%<sup>38</sup>.

### Europe: a balancing act

India's ties with Europe are growing, particularly in fintech and green technology. The EU-India Trade and Technology

Council, established in 2023, promotes AI and fintech collaborations, with \$2 billion in joint investments by 2024<sup>39</sup>. Indian fintech firms like Razorpay are expanding into Europe, processing €1 billion in transactions annually<sup>40</sup>.

European banks adopt India's blockchain solutions for trade finance, reducing costs by 15%<sup>41</sup>. However, protectionist policies in Europe, such as the Carbon Border Adjustment Mechanism, could impact Indian exports, necessitating strategic negotiations.

### China: competition and cooperation

India's relationship with China is complex, marked by competition in AI and fintech but also economic interdependence. China's dominance in AI hardware contrasts with India's software expertise, creating opportunities for collaboration but also tensions, particularly after recent border clashes.

India's ban on Chinese apps like TikTok has spurred domestic innovation, with homegrown platforms like ShareChat gaining 200 million users by 2024<sup>42</sup>. Trade with China, valued at \$115 billion in 2023, remains significant, but India is diversifying supply chains to reduce dependency, with 20% of imports shifted to Southeast Asia<sup>43</sup>.

### Challenges and opportunities

India's economic and geopolitical ascent faces several challenges:

- **Talent and Infrastructure:** despite a large AI talent pool, demand outstrips supply by 30%<sup>44</sup>. The NITI Aayog's AI for All program aims to train 1 million people by 2025, but infrastructure bottlenecks, including GPU shortages, persist<sup>45</sup>.
- **Ethical AI and cybersecurity:** bias in AI algorithms and cybersecurity risks in fintech and trade finance require robust governance frameworks. India's Personal Data Protection Act, enacted in 2023, addresses these concerns but needs stronger enforcement<sup>46</sup>.
- **Geopolitical risks:** protectionism and great power rivalry could disrupt India's export markets and tech collaborations, particularly with the US and China, with potential trade losses of \$10 billion annually<sup>47</sup>.

### Opportunities include:

- **Global leadership in DPI:** India's DPI model is a blueprint for the Global South, enhancing its soft power and influencing 500 million users globally by 2030<sup>48</sup>.
- **SME growth:** AI and fintech innovations are empowering SMEs, driving export-led growth with a projected \$200 billion increase by 2027<sup>49</sup>.
- **Strategic alliances:** deepening ties with the US, Europe, and Africa position India as a bridge between developed and developing worlds, fostering \$50 billion in tech investments by 2025<sup>50</sup>.

## Conclusion

India's economic trajectory, powered by AI, fintech, and trade finance innovations, is reshaping its role in a realigning global order. From the Srijan Centre's AI advancements to Paytm's inclusive lending and HSBC's blockchain platform, India is leveraging technology to drive growth and inclusion.

Geopolitically, India's leadership in the Global South, strategic partnerships with Africa and the West, and nuanced

engagement with China underscore its rising influence, as highlighted by initiatives like the India Think Tank Forum 2025<sup>51</sup>.

As the global order evolves, India's blend of technological prowess and diplomatic agility positions it to not only navigate but also shape the future of globalisation. By addressing challenges like talent shortages and ethical concerns, India can cement its place as a global economic and geopolitical powerhouse by 2035. ■

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# India's imperative for thought leadership in a fractured world



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**N**ot until now has the world experienced such rapid succession of events whose geopolitical consequences are as far and wide. As we write this, the global order continues to be in a precarious state, with two active wars dragging on for years now and potential hotspots in different parts of the world suffering greater uncertainty.

In many ways, the world is coming full circle, with the return of great-power rivalry, the resurgence of protectionism, and the weaponisation of economic interdependence creating a volatile ecosystem wherein the very foundations of the post-War multilateral framework are being shaken to their core.

What we need today is resolute and sustained thought leadership. It is against this backdrop that Observer Research Foundation convened the 7<sup>th</sup> India Think Tank Forum 2025 in February this year, under the theme, 'Shaping a Resilient Global Order'.

This compendium builds on the Forum and has two aims: to bridge the regional and linguistic divide by bringing together the voices of India's vast think tank community, and to provide a coherent pitch to the world on ideas that matter to India's growth and foreign policy. The compendium carries thematically diverse essays inspired by the panel discussions during the Forum.

We invited 20 speakers from across the 10 panel discussions conducted over two days of the Forum to reflect on three trends on which think tanks should focus on, and three issues that emerged from the panel discussion in which they spoke. The essays carry perspectives from think tank leaders, scholars, former diplomats, and analysts, all of whom engage with issues of India's foreign policy and evolving geopolitics, the country's development story, and its growing normative role in the international system.

It is our hope that this collection of essays captures the essence of the Forum, at the heart of which lay the question: how can India—and indeed the Global South—constructively participate in the reimagining of global governance, security,

and cooperation, without succumbing to the consequences of an international system that is fraying at the seams?

The Forum opened with a Curtain Raiser Plenary that trained the spotlight on the multiple crises confronting the global community. Three key vectors emerged: the intensifying United States-China rivalry and its implications for alliances and trade; the systemic disruption from prolonged conflicts in Ukraine, West Asia, and other vulnerable theatres; and the strategic uncertainties for India, South Asia, and the broader Global South as a result of such fragmented reality.

Setting the tone for the entire event, the curtain-raiser explored how interests can be safeguarded against the backdrop of the need for the Global South, especially countries like India, to balance economic growth and security amidst shifting alliances, economic pressures, and regional instability. As the old order comes under strain, new actors like India are poised to usher alternative norms and priorities in the global discourse.

The first thematic panel on 'Global Conflict, Stability, and Human Development' focused on internal conflicts and fragile states, emphasising how the crisis of global governance often begins within national boundaries. The persistence of ethnonationalist and religious conflicts, particularly in the Global South, signals both a failure of governance and a gap in peacebuilding frameworks.

The discussion recognised India's contributions to peacekeeping and highlighted the growing need to reform peacebuilding mechanisms to be more inclusive—particularly in advancing women's agency in conflict resolution. India's historical contributions to UN peacekeeping, with New Delhi playing an important role in stabilising conflicts, were a relevant element in the examination of India's strengths.

The panel raised important questions in the context of augmenting India's role in the domain through a proactive, strategic approach that incorporates development assistance, civil society participation, and sustainable reconciliation mechanisms.

The panel on 'Goeconomics and the Future of Growth' was devoted to the current goeconomic turmoil, especially in an era where economic priorities often trump traditional diplomacy. The speakers analysed how trade, technology, and finance intersect with power, especially in the context of the return to the US presidency of Donald Trump, signalling an inflection point for global trade policy.

At a time when efforts to usher a normalisation of protectionism and transactional diplomacy may be forging ahead, India, the panel argued, must pursue deeper regional economic linkages while protecting itself against volatile externalities. India's engagement with trade frameworks like the IPEF, RCEP, or Quad, was cited as a component of a strategy that seeks to balance pragmatism and ambition.

The vulnerabilities facing global supply chains are expected to enforce trade diversification, where countries are likely to shape frameworks to mitigate goeconomic risks and build institutional resilience.

The panel that followed discussed 'Critical and Emerging Technologies' from the perspectives of power, access, and equity. Technology has become a fundamental driver of modern life, with states increasingly leveraging critical and emerging technologies like Artificial Intelligence (AI), quantum computing, and blockchain to enhance statecraft and promote development.

The ability to innovate and effectively utilise these technologies has become a crucial factor in determining national power and global influence. The panel unpacked how the monopolisation of tech ecosystems by a few advanced economies could exacerbate the digital divide and erode democratic accountability.

In this context, what are India's strategic choices in this space—from its advocacy of ethical AI to its calls for an inclusive digital governance regime? Finally, the panel delved into how the Global South can challenge technological gatekeeping by advancing collaborative, open-access innovation models and building domestic capacity in critical technologies.

Building upon the preceding session, the panel, 'Digital Transformation: Unlocking Potential for Development', examined the role of digital technologies in accelerating inclusive development and the question of unequal access to these innovative tools.

India's model of Digital Public Infrastructure (DPI) was held up as a blueprint for the Global South—a means to catapult legacy systems and deliver efficient, transparent services to the people. How India's DPI experience—particularly in fintech, health tech, and data governance—can be adapted by other developing countries was at the centre of discussions.

Additionally, central to this transformation is the need to promote gender inclusivity, secure digital rights, and ensure that technological advancement is embedded within sustainable development frameworks. Finally, panellists weighed in on the importance of building resilient data

*"How can India—and indeed the Global South—constructively participate in the reimagining of global governance, security, and cooperation, without succumbing to the consequences of an international system that is fraying at the seams?"*

ecosystems, with the state as an enabler rather than a monopoliser of digital capital.

Perhaps very few challenges are as urgent as the global energy transition, which is transforming the geopolitical and economic landscape and with it carries massive implications for developing nations. The transition from hydrocarbons to renewables has introduced new complexities, including securing critical minerals and navigating the evolving alliances between energy-exporting and -importing nations.

As the world increasingly embraces renewable energy, India has emerged as a leader in global energy transition, exemplified by its role in initiatives such as the International Solar Alliance (ISA). The panel, 'Climate and Energy Security in a Globalised World', explored the complex dynamics between global ambition and local feasibility. India's leadership was noted as both symbolic and substantive.

Interventions on these topics dwelled on how India can sustain and expand its leadership by advocating equitable financing mechanisms, forming innovative partnerships, and ensuring climate justice in global energy architectures.

Barriers to sustainable development are widening gradually. Indeed, the multiple challenges of energy transition, climate financing gaps, biodiversity loss, flailing multilateral agencies, inequity, and misgovernance have laid bare the vulnerabilities of the Global South.

In this sense, India's role as a prominent partner for developing countries cannot be ignored. The panel, 'India and the Global South: Championing Equitable Development', assessed India's recent activism in shaping the agenda—looking at a range of activities from the Voice of the Global South Summit to New Delhi's support for inclusive trade and financial mechanisms.

As multilateral institutions falter, there is growing appetite for India to act as an enabler and norm entrepreneur. The focus on India's development partnerships in sectors such as healthcare, infrastructure, and education formed critical interventions. Questions about how India can scale up South-South cooperation through knowledge sharing, capacity building, and technical diplomacy framed the discussions. Attention was paid to India's vaccine diplomacy and DPI



exports as templates of low-cost, high-impact interventions for development.

The emergence of the Indo-Pacific as a strategic theatre based on a democratic rules-based order has altered the global geopolitical landscape. While China's heft in the region has posed a formidable security challenge for like-minded countries that continue to advocate for a free and open Indo-Pacific, its aggressive naval advances in the Indo-Pacific are impinging on the regional maritime security environment, necessitating efforts to foster stability in the regional order.

The session, 'The Indo-Pacific Nexus: Geopolitics, Security and Cooperation', reaffirmed the position of the region as a geopolitical nerve centre of geopolitics, trade and security, emphasising regional security architectures, minilateralism, and the role of the Quad.

Amidst the spectrum of convergences and divergences in the region, reflections on India's strategic tightrope

walk—maintaining autonomy while deepening regional engagement and preserving openness without succumbing to bloc politics—remained at the centre stage of the discussions.

The United Nations-led multilateral framework is facing a credibility crisis. Multilateral institutions have struggled to address critical challenges such as inter-state conflicts, climate change, pandemics, and debt crises. This failure is exacerbated by the lack of representation for emerging economies in key institutions like the UN Security Council, as well as the crisis within the World Trade Organization, which has been unable to establish a more equitable global trading system for the Global South.

As the global governance structure falters amidst shifting geopolitical realities, India has championed the concept of 'reformed multilateralism', aiming to reshape institutions to be more effective, inclusive, and responsive to global needs. Amidst this churn, the discussions underscored India's call



for 'reformed multilateralism' and its components of equity, responsiveness to crises, and institutional agility.

Finally, the discussions explored the role that think tanks play in societies by generating ideas, shaping policy debates, and offering solutions to critical challenges. In today's digital age, with the constant influx of information, it is equally important to effectively disseminate and present these ideas to a wider audience. The ability to communicate solutions in a clear and engaging manner is a pillar of the endeavour to influence policy and decision-making.

However, think tanks also face formidable challenges, particularly in securing sustainable funding while preserving intellectual integrity and independence. Balancing financial support with the freedom to produce unbiased research

remains a key challenge for these organisations, as they strive to maintain their credibility and effectiveness in addressing global and national issues.

The India Think Tank Forum 2025 offered a unique opportunity to bring together voices across regions, gender, and thematic priorities from think tanks across India. The Forum proved useful not just for discussing the pressing ideas of our time but for assessing the challenges from our collective as well as individual vantage points.

As we aim to make the compendium an annual publication, it is our hope that this present volume provides a valuable direction for a roadmap for India's thought leadership in an increasingly contested world. ■

*This article is based on the introduction to the ORF India Think Tank Forum 2025.*

# Will India benefit from the US-China tariff war?

**Sarosh Bana is the Executive Editor of Business India and Regional Editor, India/Asia-Pacific, of Germany's Naval Forces publication**

**W**ith his tariff showdown of 2 April 2025, US President Donald Trump is knowingly inciting China into a new Cold War and veering the world into recession. JP Morgan raised its forecast from 40 to 60 per cent that the global economy will enter a recession by end 2025.

Trump's unfettered move will also shatter the American Dream, hurting Americans more than any other country. His punitive taxes on all imports will escalate costs for domestic businesses, inflating prices for US consumers, and consequently edging his country into a sustained economic decline and eventual recession.

If American importers opt to absorb the tariff costs, their profitability will decline, coercing them to downsize operations and lay off workers. If they pass on the tariff costs to consumers, which is more likely, consumer demand will collapse, hitting manufacturing and again throwing workers out of jobs.

The US dollar has also been sliding against other major currencies, which is a clear signal that investors may be starting to shun what has long been the safest haven in global financial markets.

On 9 April, Trump suddenly announced the pausing of reciprocal tariffs for 90 days to give his administration time to work out trade deals with 75 countries, which he said had reached out to the White House to offer concessions. He later acknowledged that the pause was also driven by volatility in the stock and bond markets.

But he singled out China, not only excluding it from the 90-day concession but also upping his absurd 145 per cent tariff on Chinese imports to an incredible 245 per cent, as retaliation against Beijing's retaliation in hiking tariffs on all US goods from 34 per cent to 84 per cent to 125 per cent, starting 12 April.

## **China's response**

China termed the Trump administration's actions a 'joke', stressing that they no longer considered them worth matching. Trump has tried to soften the impact by exempting US\$100 billion worth of tech imports, but tensions prevail

as Washington contemplates a national security probe on electronics.

Chinese President Xi Jinping is expected to do all he can to counter Trump's excesses. Indeed, the 2022 US National Security Strategy cites China as the *"only competitor with both the intent to reshape the international order and, increasingly, the economic, diplomatic, military, and technological power to do it."*

China has halted exports of six rare earths, cutting off the US and other countries from these minerals vital for the tech, auto, aerospace, defence, and manufacturing industries. It has also ordered Chinese airlines not to take further deliveries of the Seattle-based Boeing Company's aircraft. China is Boeing's largest customer and is in line to receive deliveries of 9,000 airplanes – 20 per cent of Boeing's production – over the next two decades.

It is a fact, though, that the US suffers a massive trade deficit with China that exceeded US\$295.4 billion last year; its exports were worth US\$143.5 billion to China in comparison with US\$438.9 billion worth of imports from China.

The US' overall trade deficit in goods and services was US\$918.4 billion in 2024, a 17 per cent increase from 2023, even as China's overall trade surplus surged to a record US\$992.2 billion in 2024, its exports climbing 5.4 per cent.

This helped tide over the sluggish growth at home as it gradually recovered from a crisis in its property market and the persisting effects of the COVID-19 pandemic.

## **Trump's use of tariffs denounced**

However, a brutal slugfest was certainly not expected of the world's largest economy, which the US clearly is, with its 2024 GDP of just under US\$29 trillion far outshining the US\$18.6 trillion GDP of China, the world's second-largest economy.

A calibrated approach to trade rectification would have been more acceptable, even welcomed, by the international community. It would have expected Trump to seek mutually compatible trade agreements with countries and blocs, rather than wield a sledgehammer to structure an economic order pandering to his whims.

Banking giant, UBS, expects China's exports to the US to drop by two-thirds in the coming quarters, with overall Chinese exports declining 10 per cent in US dollar terms in 2025, factoring in weaker American and global economic growth. In a report on April 15, the bank also downgraded China's GDP growth forecast to 3.4 per cent in 2025, assuming current tariff hikes will remain, and that China rolls out additional stimulus.

On 14 April, legal advocacy group The Liberty Justice Center, urged the US Court of International Trade to block the President's sweeping tariffs, contending that he exceeded his authority. Arguing that only Congress can set tax rates, including tariffs, Center counsel Jeffrey Schwab said, *"No one person should wield such power."* White House spokesman Harrison Fields defended the tariffs, calling them essential to US interests.

### China's counter moves

President Xi has embarked on a diplomatic outreach to contain the United States' influence. When he recently hosted Spanish Prime Minister Pedro Sánchez in Beijing, he urged the European Union to embrace a *"fair international trade environment and jointly resist unilateral and intimidating practices."* He added that *"China and Europe should fulfil their international responsibilities... and jointly resist unilateral bullying practices."*

Xi also reached out to Southeast Asian countries, warning that a *"trade and tariff war will produce no winner, and protectionism will lead nowhere."* He visited Vietnam, Cambodia and Malaysia in a bid to *"resolutely safeguard the multilateral trading system, stable global industrial and supply chains, and open and cooperative international environment."*

The three countries have been imposed tariffs of 46, 49 and 24 per cent respectively by the US, although they have been similarly suspended for 90 days.

Xi presented China as a reliable partner, unlike the US, and said his country is ready to fight a trade war if Washington continues to act *"recklessly."*

In a rare gesture, Beijing also sought to galvanise New Delhi to "stand together". In a post on X, Chinese Embassy spokesperson Yu Jing said: *"China-India economic and trade relationship is based on complementarity and mutual benefit. Facing the US abuse of tariffs, which deprives countries, especially Global South countries, of their right to development, the two largest developing countries should stand together to overcome the difficulties."*

Her post followed a congratulatory message by the Chinese President himself on 1 April to his Indian counterpart, President Droupadi Murmu, on the 75<sup>th</sup> anniversary of the establishment of China-India diplomatic relations, that India

*"Narendra Modi walks a tight rope. Nevertheless, he is positioning India to capitalise on any advantage coming out of the tariff war so as to emerge as a net beneficiary"*

and China should work together, as two major neighbouring countries that are home to one-third of the world's population. *"A stable, predictable and friendly bilateral relationship will benefit both countries and the world",* he added.

India did not respond to this statement, though External Affairs Minister S Jaishankar said the bilateral relationship was moving in a *"positive direction."*

### India-US trade talks

Prime Minister Narendra Modi walks a tight rope. Nevertheless, he is positioning India to capitalise on any advantage coming out of the tariff war so as to emerge as a net beneficiary.

Even as Finance Minister Nirmala Sitharaman was pacing through her conciliatory five-day visit to the US to engage with officials on another round of talks on a Bilateral Trade Agreement (BTA), the first phase of which she hopes will be finalised by 'autumn' (September-October), Modi was hosting US Vice President JD Vance as he started his four-day visit to India.

India enjoyed a trade surplus of US\$36.8 billion over the United States in 2023-24, with US\$77.5 billion of exports in the two-way trade worth US\$118.2 billion. New Delhi is now anticipated to bend backwards in complying with Trump's call to narrow the US' trade deficit.

Even as the two governments announced the finalisation of the Terms of Reference for negotiations on the BTA, Vance took off from when Trump cornered Modi during their 13 February meeting at the White House. He was quick to affirm that America wanted greater access to Indian markets, and urged India to buy more oil, gas and defence hardware from the US, and to lower non-tariff barriers for US businesses.

US Trade Representative Jamieson Greer also issued a statement in Washington welcoming 'India's constructive engagement' but declared: *"There is a serious lack of reciprocity in the trade relationship with India. These ongoing talks will help achieve balance and reciprocity by opening new markets for American goods and addressing unfair practices that harm American workers."* ■

*This article is based on a RSIS Commentary 087/2025. RSIS Commentary is a platform to provide timely and, where appropriate, policy-relevant commentary and analysis of topical and contemporary issues. The authors' views are their own and do not represent the official position of the S Rajaratnam School of International Studies (RSIS), NTU.*



# Supporting digital payments

**Sanjay Malhotra is Governor of the Reserve Bank of India**

## Background and benefits

Payments are the lifeblood of commerce, enabling the flow of goods and services in an economy. They connect people, empower individuals and businesses, and drive economic growth. Quick, secure and reliable payments at affordable prices are the bedrock for a vibrant economy. Payments through digital modes support economic growth.

They also deepen financial inclusion by overcoming barriers like high transaction costs and geographical limitations<sup>1</sup>. In effect, digital payments are not just convenient but are also a powerful tool for economic empowerment and growth.

## Convenience: bouquet of products

Over the years, the Reserve Bank has supported various digital payment products. This has enhanced choice and convenience to the customers. We started with ECS (electronic clearing service). We then introduced NEFT, RTGS, IMPS, NACH (this is for e-mandates, it has replaced ECS), AePS, UPI, NETC, etc. We have introduced many new features on UPI and expanded its scope to cater to different needs of customers.

These include UPI123Pay, UPI Lite, linking RuPay credit cards to UPI, processing payment mandates with single-block-and-multiple-debits, enabling credit lines for UPI, linking PPIs with UPI, etc. UPI with its multiple features, allows us to transfer money, pay bills, and make purchases with a simple click, tap or scan. We will continue to proactively support the development of the payment ecosystem.

## Safety and security

While promoting digital payment systems and innovations around them, we have been mindful of the needs of safety and security in payments. We have thus put in place various measures for this purpose:

Multi-factor authentication; security controls for internet and mobile payments apps and card payments; card tokenisation (to prevent storage of card details in merchants' systems), etc. are intended to make our payments ecosystem robust.

We have enabled customers to have control over creating and terminating e- mandates for recurring transactions.

Enhancing safety and security of payments ecosystem is a work in progress. The recently released drafts on *Framework on Alternative Authentication Mechanisms for Digital Payment Transactions*, and on *Additional Factor of Authentication (AFA) for cross-border Card Not Present (CNP) transactions* are steps in this direction.

## Payment systems – way forward

Apart from the RBI, the government and other important stakeholders such as the banks and payment system operators have also taken a number of initiatives to encourage the adoption of digital payments. While these efforts have produced results, as visible in the huge growth of digital payments, there is still a lot more to be done. Going forward, we will work on three broad areas.

## Soft touch regulations to continue promoting innovation

First, we will continue to encourage innovation in payments, as also generally, while being mindful of risks and taking appropriate measures to mitigate them. We will promote innovation to facilitate payment systems that are fast, safe, secure, accessible and resilient. We have adopted a soft-touch approach to regulating the payments ecosystem and fintechs.

Through these regulations, the Reserve Bank attempts to balance these divergent set of expectations. Our approach



has been to put in place regulatory guardrails within which all stakeholders are free to operate. We will continue to encourage innovation while promoting safety and security through soft-touch regulations.

### Promote awareness generation

Second, though much progress has been made in the development, spread and adoption of digital payments, there is a lot of scope to further deepen and expand digital payments in the country. In January 2025, more than 20 billion payments worth almost 250 trillion rupees were made in India through digital modes.

Digital payments have become the preferred mode of payment for many of us. However, surveys have shown that nearly 40% of our adult population still do not use digital payments. One of the main reasons for this is the lack of awareness or familiarity with using digital payments.

To create awareness of digital payments, the *Digital Payments Awareness Week* is being observed in March every year. As part of this endeavour, the *Har Payment Digital* mission was launched in 2023. The mission seeks to promote digital payments by enhancing awareness of digital payments among all citizens and making available the necessary infrastructure and solutions for people to make payments digitally.

The objectives of *Har Payment Digital* can be achieved only with the active participation of all stakeholders. Geographies and population segments, lagging behind in usage and awareness of digital payments need to be identified and suitable steps taken to expand awareness and improve usage.

We are now in the 3<sup>rd</sup> year of this mission. The theme for this year is 'India Pays Digitally'. This year too, we will continue our awareness activities. By showcasing how digital payments have become a ubiquitous part of our lives, we will encourage those who haven't adopted digital payments yet, to do so.

The Regional Offices of RBI too conduct Awareness Programs, called *eBAAT*, across the country covering various strata of society. We have been conducting these programs since 2012. In the last 8 years, more than 1,800 such programs have been conducted.

During this year, the content and method of delivery of *eBAAT* will be reviewed, and a pilot will be conducted (in a large state) with the objective to reach a very large number of people in the most efficient way.

*"We are just beginning to unlock the true potential of digital payments. I am confident that we will continue to work with renewed vigour to ensure that India remains at the forefront of digital payments globally"*

I urge the banks, payment system operators and other stakeholders to contribute in their own innovative ways to take forward the mission of *Har Payment Digital*.

### More efficient crossborder payments

Third, while in domestic payments, the success of UPI has propelled India to a leadership position with a share of 48.5 per cent in global real-time payments by volume<sup>2</sup>, we will endeavour to make crossborder payments more efficient. This assumes priority as India is the largest receiver of personal remittances globally.

As per a World Bank<sup>3</sup> report, it has been estimated that in 2024, India received remittances totalling approximately 130 billion USD. We need to address the challenges of high cost, slow speed, and insufficient access and transparency in crossborder payments.

We will continue to expand the reach of UPI bilaterally by linking UPI with fast payment systems of other countries. We will also explore the possibility of linking payment systems other than UPI for facilitating efficient crossborder payments. We will continue our engagement in a multilateral project called Project Nexus, to enable instant crossborder retail payments<sup>4</sup>.

I am happy to note that this year marks the 20<sup>th</sup> year of the establishment of the Department of Payment and Settlement Systems (DPSS). The work carried out by this department in association with all stakeholders has established India as a pioneer in digital payments. The revolution in India's payment systems is, however, far from over.

We are just beginning to unlock the true potential of digital payments. I am confident that we will continue to work with renewed vigour to ensure that India remains at the forefront of digital payments globally. ■

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2. ACI Worldwide, 2024

3. <https://blogs.worldbank.org/en/peoplemove/in-2024--remittance-flows-to-low--and-middle-income-countries-ar>

4. Nexus, conceptualised by the Innovation Hub of the Bank for International Settlements (BIS), aims to connect the Fast Payment Systems of four ASEAN countries (Malaysia, Philippines, Singapore, and Thailand); and India, who would be the founding members and first mover countries of this platform.

*This article is based on a speech delivered at the inauguration of Digital Payments Awareness Week 2025, held at the Reserve Bank of India, Mumbai, 10 March 2025.*



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# Disregarding lessons from history



**Michael Bordo is Professor of Economics at Rutgers University, and Mickey Levy is a Visiting Fellow at the Hoover Institution of Stanford University**

**P**resident Trump's tariffs and threats to manage interest rates and the US dollar and dramatically cut the US' global financial and diplomatic roles would materially harm US and global economic performance and upend the world order, with the US playing a more isolated role.

In this column, we assess the two waves of globalisation in modern history and how they were interrupted by tariffs and barriers to trade. We then describe different scenarios, with the highest probability policy outcome involving significantly lower-than-feared average effective tariffs.

Unfortunately, Trump's erratic policymaking and belligerence toward allies have already dented US credibility and will have lasting negative impacts on important global relationships.

Economic theory and common sense reveal the flaws in Trump's advocacy of tariffs, and history is replete with evidence that tariffs harm economic performance and fail to achieve desired outcomes. Adam Smith's *Wealth of Nations* (1776) and David Ricardo's *Law of Comparative Advantage* (1817) refute the doctrine of mercantilism, the perceptions of the world as a zero-sum game, and the objectives of maximising the balance-of-trade surplus. Many of these issues are highlighted and modernised in Richard Baldwin's *The Great Trade Hack* (Baldwin 2025) and Maurice Obstfeld's *What policymakers got wrong about US trade deficits* (Obstfeld 2025).

Trump's notions that tariffs will generate sufficient revenues and improve US government finances are wildly unrealistic. Tariffs generated a large portion of revenues in the 19<sup>th</sup> century when government finances were small and before income taxes were established in 1913.

Today, tariffs would harm the economy and fail to improve deficit financing. Trump's hope of returning to the mid-19<sup>th</sup> century era of labour and capital-intensive US manufacturing ignores massive technological advances as well as the United States' comparative advantages and strengths in high-tech services, and he does not distinguish between national-security-oriented and other manufacturing.

He overstates US leverage in imposing and negotiating tariffs, understates damaging retaliation, and ignores the negative consequences of isolating the US and alienating its allies.

The first era of globalisation was ushered in by the free-trade movement in the UK, initiated with the repeal of the Corn Laws in 1846 and the Cobden-Chevalier Treaty of 1860. The industrial revolutions in the UK and subsequently the US benefited from soaring global trade, as shown in Figure 1 (Bordo *et al* 2003, Meissner 2024). The US ran a nearly constant trade deficit from 1865 through WWI, when the dramatic rise in capital inflows financed its industrial development.

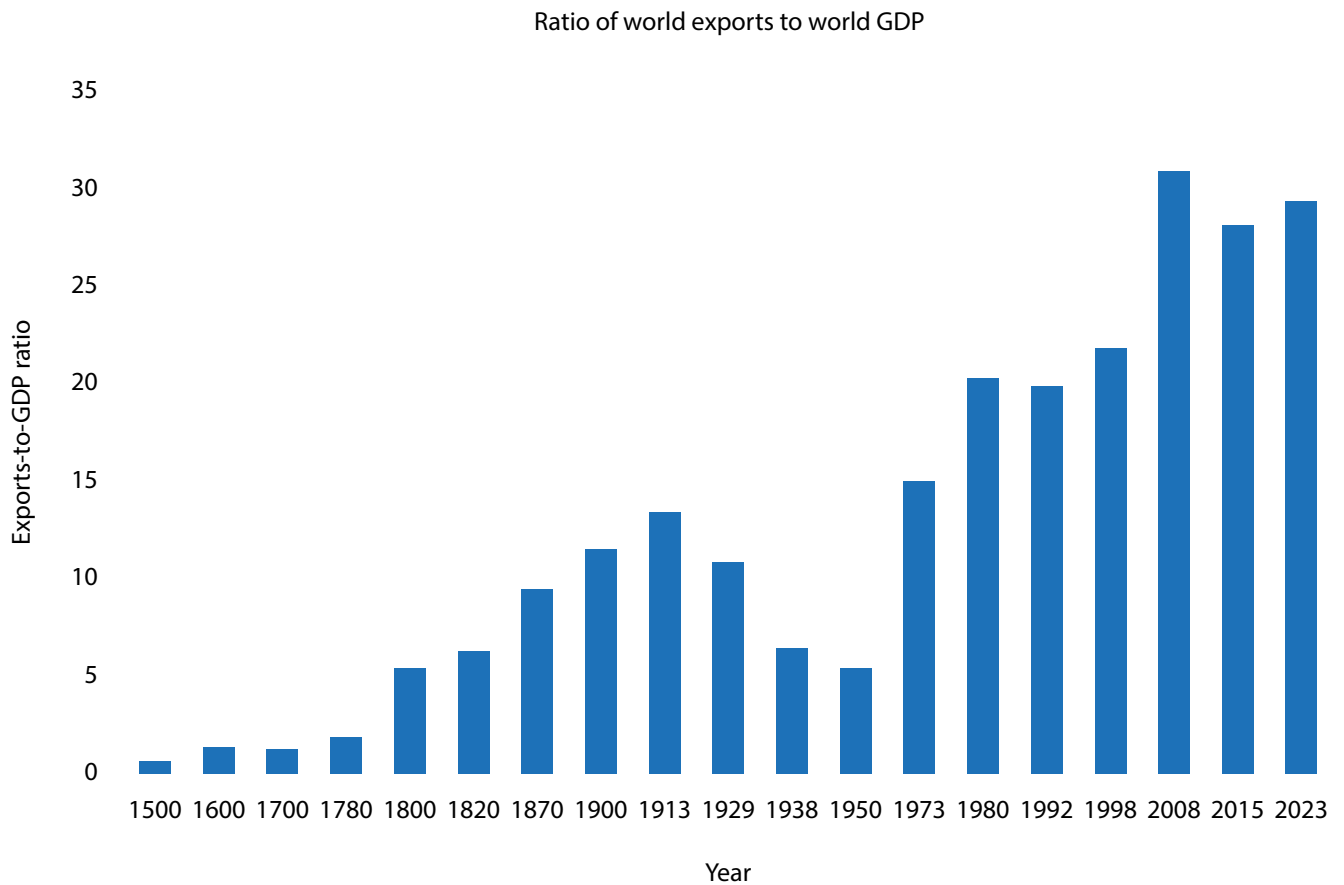
Sizeable immigration contributed to the US economic boom. However, the influx of immigrants and a sharp rise in the foreign-born share of the population stirred mounting resentment. This fed popular support for heightened controls of immigration, global trade, and crossborder capital flows.

Restrictions on global trade and capital flows were ramped up during WWI, beginning an extended era of US protectionism. New US laws sharply curtailed the flow of immigrants, and the Fordney-McCumber Tariff Act of 1922 imposed tariffs of 14% on all imported goods. At the onset of the Great Depression, the Smoot-Hawley Tariff Act imposed effective tariffs of 20% on imports (Crucini and Kahn 1996, Irwin 1998). This accentuated the severity of the economic contraction and initiated a period of constrained international trade and capital flows and immigration.

The second era of globalisation began after WWII and gathered steam until the Great Financial Crisis of 2008–9. Global trade and growth boomed, and the portion of people worldwide living in poverty shrank dramatically. Beginning in the 1970s, the US ran a nearly persistent trade deficit (Figure 2), benefiting from capital inflows that helped finance technological innovations and economic advances.

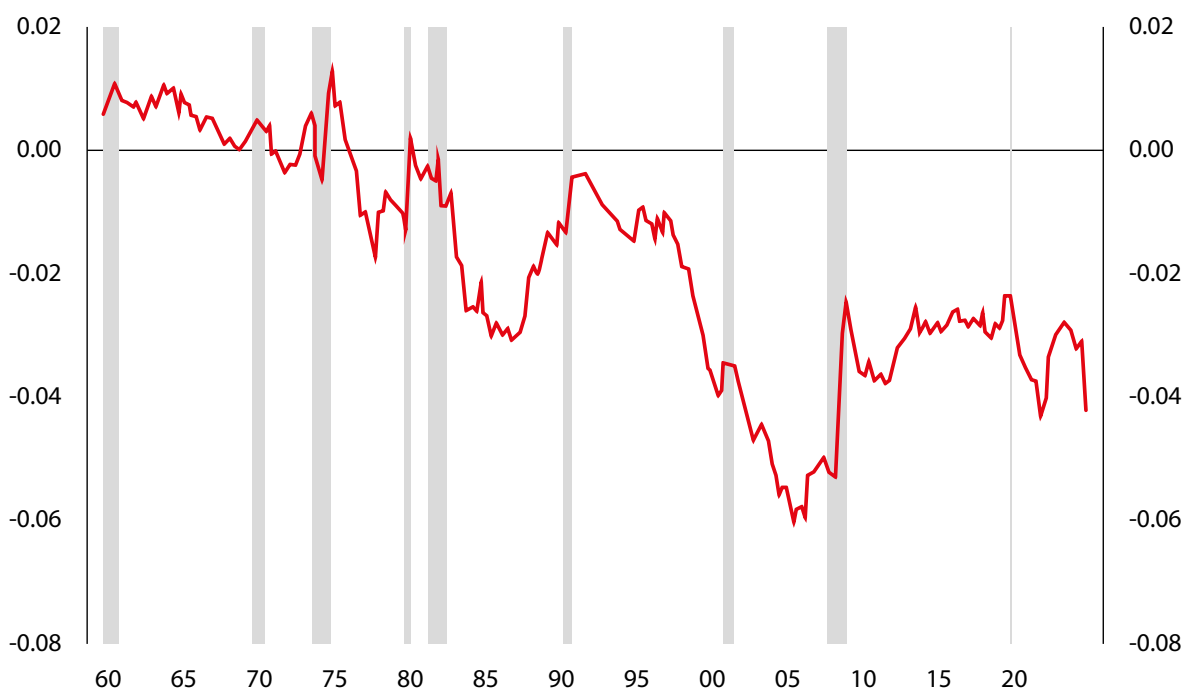
The US initiated many critical international reforms that promoted global trade and capital flows, including the General Agreement on Tariffs and Trade (GATT), Bretton Woods, the International Monetary Fund (IMF), and the World Bank.

**Figure 1. Global trade, 1500-2023 (world exports/world GDP)**



Source: Meissner (2024)

**Figure 2. US trade deficit as percentage of GDP**



Source: Haver Analytics

## *“The US initiated many critical international reforms that promoted global trade and capital flows, including the General Agreement on Tariffs and Trade (GATT), Bretton Woods, the International Monetary Fund (IMF), and the World Bank”*

Notably, in 1999, the US promoted China's acceptance into the World Trade Organization (WTO), conveying favoured nation status and lower trade barriers (Bordo 2017). China's subsequent emergence as the world's manufacturing hub with its very large bilateral trade surplus with the US has made it a primary focus of Trump's tariff policies.

During the second era of globalisation, some nations failed to reduce their tariffs and barriers to trade, and they paid the price in terms of economic growth and progress. India and Argentina were notable laggards, and other least developed countries (LDCs) followed. Jawaharlal Nehru of India believed in import substitution, and India maintained high tariffs from the 1940s to the 1990s. Raúl Prebisch of Argentina pursued the same approach from the 1930s to the 1980s. Their economies stagnated.

President Trump's tariffs and threats to intervene in interest rate and currency markets undercut the tenets of free enterprise. His wish to maintain the US dollar as the world's reserve currency but desire for a weaker dollar is inconsistent, and threats to pressure the Federal Reserve towards lower interest rates would only raise market volatility.

Trump's proposed cuts in subsidies to European defence and soft dollar initiatives in least developed countries (LDCs) would change the world order, and the US's loss of credibility may isolate the US. This has happened before: following the Smoot-Hawley tariffs of 1930, Canada retaliated, and along with the UK and other British Empire countries, signed the Ottawa Agreement creating a tariff wall against the US (Schenk 2011), greatly contributing to Charles Kindleberger's (1986) famous downward spiral in global trade.

The tariffs have already begun to distort global supply chains and reduce production efficiencies and have elicited foreign retaliation. As such, they will have a larger negative economic impact than similarly sized corporate tax increases. The closely followed Baker-Bloom-Davis Economic Policy Uncertainty Index has spiked (Figure 3), which points to weaker consumption and industrial production (Baker *et al* 2016).

The marked decline in the US dollar and a rise in US Treasury bond yields have added risk to US government debt financing.

Concerns about the loss of US government credibility and rising debt could potentially jeopardise the long-standing role of US Treasuries as the world's safe-haven asset.

Foreigners hold nearly one-third of \$26 trillion of outstanding US publicly held debt, and a sharp reduction in demand could drive up yields and jar global financial markets (Bordo and McCauley 2025, Bossone 2025).

Another concern is the looming collision between Trump's tariffs and the Federal Reserve's dual mandate. Inflation is currently above the Fed's target of 2% inflation and employment is close to maximum, with a jobless rate of 4.2%. The Fed is publicly committed to its inflation target and worries about rising inflation expectations. Historically, it tends to respond more quickly to higher unemployment than higher inflation. Trump's threats to influence the Fed loom in the background.

Fortunately, Trump has backed off from his earlier tariffs and has signalled a willingness to negotiate lower tariffs with China, Europe, and other nations. His tariff reductions in April in response to a sharp decline in the stock market and the US dollar revealed a willingness to negotiate with global leaders and grant favours to American business leaders who pledge higher capital spending and onshoring production.

Trump's abrupt policy reversals in response to pain thresholds, enthusiasm for bilateral negotiations, and encouraging 'kiss the ring' cronyism are misguided and distasteful and show a naïve disregard for free enterprise and markets.

They nevertheless suggest different policy scenarios and consequences, as described below. Note that all scenarios involve different degrees of 'worse' — because free trade without tariffs or other barriers would result in the best economic outcomes.

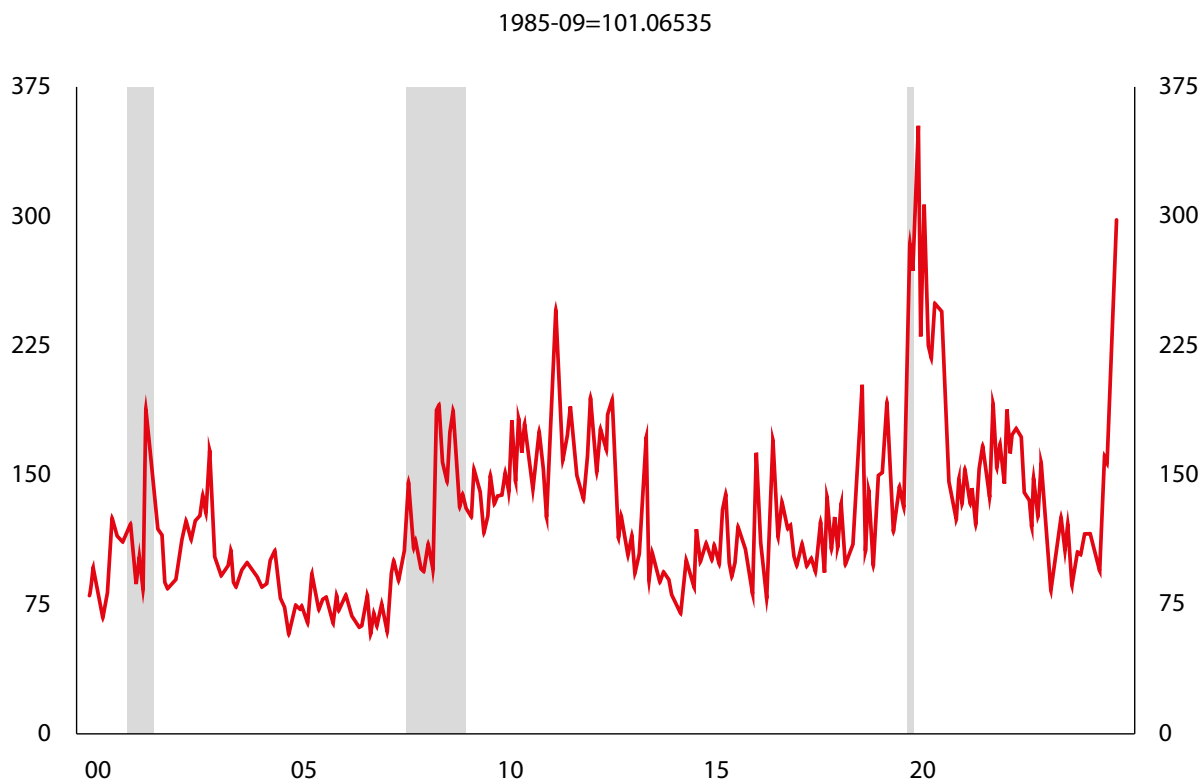
The scenarios are:

**Scenario 1.** Best outcome: mild negative. 10% average effective tariffs on all imports, with select exceptions (compared to 4% before Trump); moderate uncertainties; significant US slowdown or very mild recession; US dollar and stock market remain firm and Treasury yields decline. Probability: 10%.

**Scenario 2.** Less-worse case. Tariffs are reduced to 12-14% average (roughly \$140 billion or 1.4% of GDP), including negotiated lower tariffs for Canada and Mexico; limited retaliation and diminished uncertainties; a marked economic slowdown or mild recession; Fed easing supports stock market; US dollar declines modestly in an orderly fashion; US retains dominant status in the world; small hit to US longer-run potential growth. Probability: 75%.

**Scenario 3.** Worse case. 20% average effective tariffs, including 10% on all imports, easing of current tariffs on China (50%), 25% on Canada and Mexico; US dollar falls and US Treasury yields spike and this forces Fed intervention to stabilise markets; sizeable stock market declines; moderately

**Figure 3. Economic policy uncertainty index**



Source: PolicyUncertainty.com/Haver Analytics.

deep recession; sizeable negative impact on US potential growth (-0.3% to -0.4%). Probability: 10%.

**Scenario 4.** Worst-case scenario. Effective average tariffs of 25%. Trade war with China escalates and current tariffs on Canada and Mexico persist; Trump ramps up deportation of immigrants and makes permanent cuts in government funding of research and universities; US credibility diminishes markedly, US dollar and stock market fall; US is harmed with deep recession and potential growth is diminished by 0.5%; US exceptionalism erodes decidedly. Probability: 5%.

The highest probability, less-worse Scenario 2 seems realistic based on Trump's revealed behaviour and preferences. However, soothing relationships with allies and achieving diplomatic normalcy may take years of good US behaviour, and is unlikely during the Trump administration.

Our hope is that with an easing of tariffs and trade barriers, foreign leaders will 'tolerate' Trump, while continuing to appreciate the exceptional capabilities and potential of the US's private sector and economy. ■

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# How the EU should plan for global trade transformation

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**T**he major turbulence being experienced by the world economy could lead to a global recession and the collapse of the norms and institutions that have been critical for stability and economic development since the Second World War.

In particular, the United States has adopted a level of tariff protection last seen in the 1930s and there are signals of financial instability that could weaken the role of the dollar in the international monetary system<sup>1</sup>.

Meanwhile, China is doubling down on state-led mercantilist policies and appears to be unable or unwilling to change its growth model in a way that would contribute to rebalancing the global economy<sup>2</sup>. Economic tensions are compounded by escalating geopolitical rivalry.

While the European Union evaluates what a trade deal with the Trump administration could involve<sup>3</sup>, it should also work with likeminded countries to reform the global trading system.

The European Union and most trading economies, including many emerging economies, have a common interest in a rules-based economic system, even if this needs to be transformed fundamentally. Trading economies are equally concerned about the risk of a bipolar system based on spheres of influence.

But so far, the need to respond to the immediate threat of Trump's tariffs has prevented the emergence of a cohesive coalition that could advocate for respect of World Trade Organisation rules while promoting a fundamental reform of multilateral economic governance.

The EU should work to establish such coalition. This should not depend on the willingness of the US and/or China to engage and should be ready to take autonomous initiatives through open plurilateral agreements. Such agreements could later be integrated into a reformed WTO framework. If the conditions for multilateral reform are not met, the coalition could provide a pole of stability for those countries committed to a modernised rules-based trading system.

## **The need for a systemic response to US tariffs**

The chaotic way in which US trade policy is being developed

makes it hard to predict how tariffs will evolve. The most likely scenario may involve three elements:

1. A 10 percent US import surcharge, ostensibly to raise revenues;
2. Protective tariffs of 25 percent for a large number of manufacturing sectors (so-called Section 232 tariffs, for



which a national-security justification is used). So far, these tariffs target the steel, aluminium and auto sectors but might be extended to pharmaceuticals, aircraft, semiconductors and others<sup>4</sup>;

3. Tiered tariffs on China, with higher levies on those sectors for which the US is seeking strategic decoupling, including those subject to sectoral tariffs.

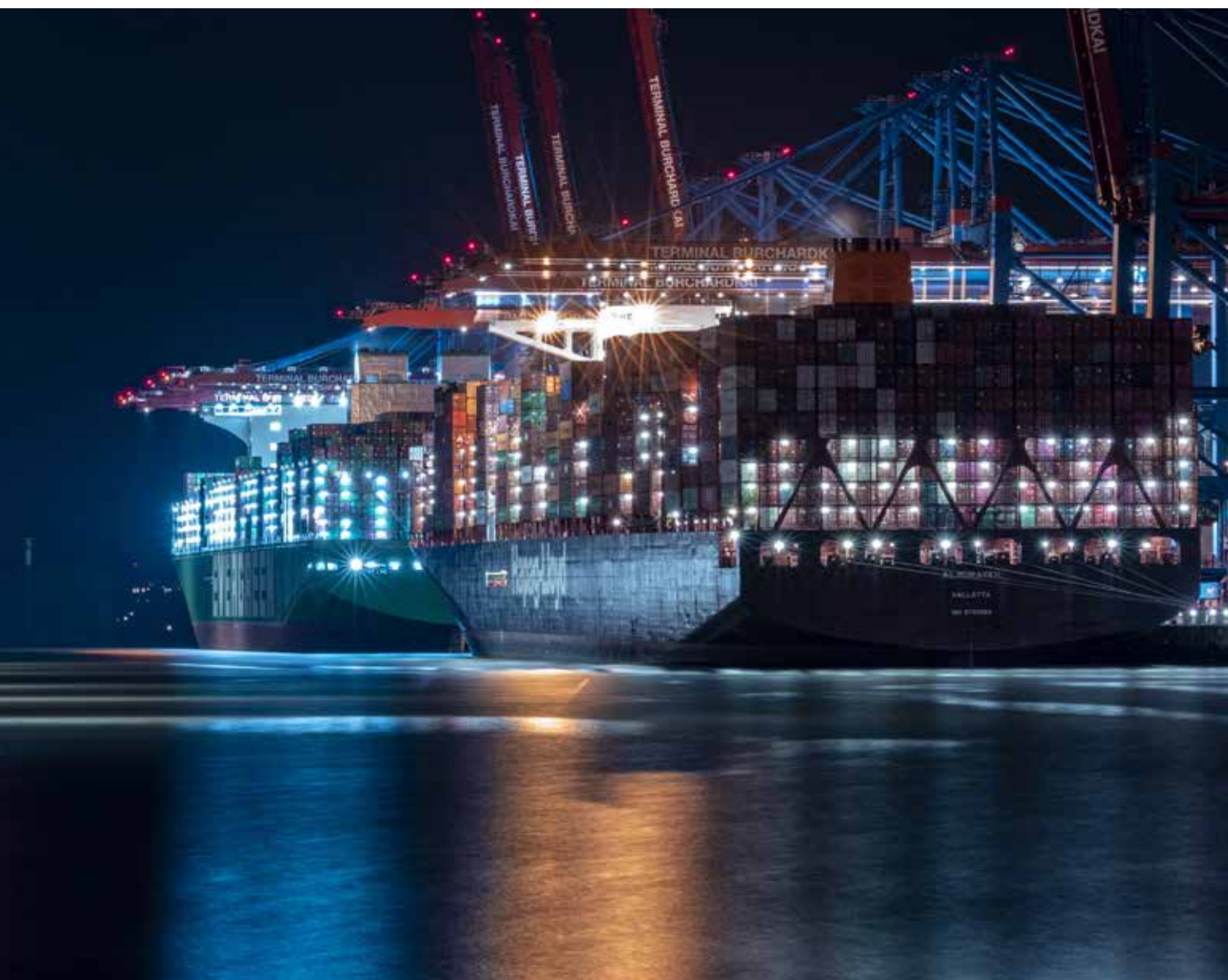
Under the China-US trade deal announced on 12 May<sup>5</sup>, tariffs range from 30 percent for US imports from China for sectors that were not impacted by tariffs imposed by the first Trump administration to 65 percent for the sectors protected by Section 232 tariffs (with a few higher tariffs introduced previously by the Biden administration). These tariffs could be further reduced by 20 percent if there is a deal on preventing fentanyl flows to the US.

Meanwhile, Trump has announced a 20 percent tariff on the EU, although currently only a 10 percent tariff is being imposed on products not affected by Section 232 tariffs. The negative impact of this could be around 0.3 percent of EU GDP (Barata da Rocha *et al* 2025), which is significant although not

*“The bigger risk is that a US-China agreement will be based on managed-trade approaches that further weaken the rules-based trading system and negatively impact EU access to the China market”*

enough to push the EU economy into a recession. The EU can also expect trade diversion from China and other countries impacted by US ‘reciprocal’ tariffs calculated according to countries’ trade surpluses with the US<sup>6</sup>.

These risks should not, however, be exaggerated. The 12 May US-China deal only maintains prohibitive tariffs for sectors already heavily protected by the Biden administration, and for which Chinese exports to the US are very limited. The bigger



risk is that a US-China agreement will be based on managed-trade approaches that further weaken the rules-based trading system and negatively impact EU access to the China market.

The EU could also be negatively impacted if the countries that do not have free trade agreements with the EU respond to US reciprocal tariffs by offering the US preferential market access.

To limit the impact of the negative demand shock arising from US tariffs, the best policy for the EU will be to support growth through economic stimulus and reinforcement of the single market. A full European response would require a political decision to issue Euro Bonds to finance both defence expenditure and other public goods such as critical crossborder energy infrastructure, together with legislative proposals to achieve a savings union<sup>7</sup>.

Issuance of Euro Bonds and a more expansive EU budget would also reinforce the international role of the euro and put the EU in an offensive position in international discussions on the correction of macroeconomic imbalances.

### **New trade agreements and an EU-CPTPP partnership**

The first major test for EU trade policy in responding to the new situation ushered in by Trump is whether the EU trade agreement with Mercosur, finalised in December 2024<sup>8</sup>, can be ratified rapidly.

This should be accompanied by a proactive trade policy that includes more strategic trade relationships with the United Kingdom and Switzerland, and conclusion of free trade agreements with India, Australia and important Association of Southeast Asian Nations (ASEAN) countries.

The EU should also renew its focus on Africa through investment partnerships that support value addition and better integration in shared value chains, starting with the conclusion of negotiations on a clean trade and investment partnership with South Africa.

Improving relationships with countries in the Global South will also require responding to their concerns about the impact of European Green Deal measures on their exports. The next EU budget, from 2028, should include a fund to support decarbonisation in developing countries.

More broadly the EU needs to develop a partnership approach to its green industrial policies, based on a willingness to better integrate developing countries into green value chains, as planned through Clean Trade and Investment Partnerships<sup>9</sup>.

The EU should however go beyond developing bilateral trade agreements. The more strategic objective should be to establish a strong alliance of countries committed both to rules-based trade and the modernisation of global trade rules. EU trade ministers should meet their counterparts from Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) countries<sup>10</sup>.

The immediate goal would be to agree a set of common principles on how to respond to the challenges raised by

US tariffs and US-China negotiations. But this should be accompanied by the medium-term goal of preparing the ground for WTO reform.

Fundamental WTO reform will, however, take time. It is not a realistic prospect while President Trump is in office, and it is uncertain when the political conditions for such a reform would be met. EU and CPTPP trade ministers should therefore develop a structured cooperation framework, including the option of plurilateral agreements that would be open for other countries to join.

At a minimum, the cooperation framework should agree on how trade rules can be modernised in areas including digital trade, the interface between trade and climate policies, and cooperation on economic security and supply-chain resilience. These discussions could provide the basis in the short-term for negotiations on a digital trade agreement, and on joint principles to promote resilient and sustainable value chains.

Consideration should also be given to how to better integrate value chains through a common protocol on rules of origin. To avoid complex negotiations, the protocol would complement rules included in the CPTPP and bilateral agreements, giving firms the option to use the common rules if they wish to benefit from cumulation.

The rules should moreover not be too relaxed on non-originating content in light of concerns about the high degree of Chinese content in some products manufactured in the Indo Pacific region. Resolving these challenges would have a significant trade-facilitating effect through rules that link all the FTAs in the region, and potentially also FTAs with other countries in Europe, Asia or Latin America.

Beyond engagement with the CPTPP, the EU should reach out to major emerging economies including Brazil, India and South Africa to prepare the ground for the next WTO Ministerial, taking place in March 2026 in Cameroon.

This could be the occasion for a political discussion on the fundamental reforms needed to bring stability back to the global trading system. Ministers should in particular recognise the need to develop new approaches to improve disciplines on agricultural and industrial subsidies.

The Ministerial should also aim to agree a development package focused on issues on which Chinese and US cooperation is possible, and which respond to the concerns of developing countries most seriously impacted by current geopolitical tensions. Four elements of such a package could be:

1. A renewed commitment to duty-free, quota-free access for the least-developed countries, including readiness by the US to exempt those countries from the 10 percent import surcharge;
2. A Ministerial decision on economic integration of African countries, including the possibility of case-by-

case WTO rule exemptions for measures that promote greater pan-African value addition;

3. The integration into the WTO of the already concluded plurilateral agreement on Investment Facilitation for Development<sup>11</sup>;

4. A food-security decision that allows least-developed countries and net-food-importing countries to benefit from flexibilities on public stockholding of food supplies that currently benefit only India<sup>12</sup>.

Even if it may be challenging to reach agreement on all these issues, the EU should lead in seeking maximum support.

### **Fundamental multilateral economic governance reform**

While the Trump administration appears determined to ignore international norms, dismantling the economic integration achieved in the last 80 years would be very costly in economic terms. The US is currently unlikely to take the lead in any initiative to reform multilateral governance.

The ground must be prepared instead by an EU-led coalition of countries. The coalition would of course need to engage with both the US and China to identify whether the political conditions for reform are met.

Major emerging economies, including India, Brazil and South Africa, will have to be fully involved in the preparation of the reform negotiations.

A fundamental reform of the WTO would need to respond to five challenges:

1. Subsidies and other forms of public support given to industrial sectors are at least as significant as those

affecting agriculture, and neither of them are subject to effective WTO disciplines.

2. Countries are increasingly implementing economic-security measures without any clarity on their relationships with WTO rules.

3. The balance of tariff and services commitments agreed in 1995 when the WTO was created no longer corresponds to economic realities.

4. The WTO will only retain relevance as a negotiating forum if it is sufficiently flexible to incorporate open plurilateral agreements.

5. Multilateral agreement on a binding dispute settlement system will only be possible if a solution can be found to challenges 1-4.

Responding to these challenges implies a transformation of the global trading system as significant as that which resulted in the establishment of the WTO. While a comprehensive round of trade negotiations would not be required, each issue raises trade-offs and would require careful preparation and intellectual leadership.

A balance would need to be struck between improved disciplines to promote a level playing field and leeway for countries to pursue industrial policies and economic security.

Trade negotiations would moreover need to be coordinated with other aspects of multilateral economic governance reform, notably reinforced coordination of macroeconomic governance, an improved development compact and stronger commitments to fulfil climate objectives. ■

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# AI and the labour market

**Michael S Barr is Vice Chair for Supervision at the Federal Reserve**

I would like to address a key question facing economists, policymakers, and people all over the world: how will artificial intelligence, particularly generative artificial intelligence, or GenAI, affect workers and the labour market in the years ahead?

Before I turn to that issue, I'd like to touch on a topic that I expect is also of interest: the outlook for the US economy and the implications for monetary policy. The US economy entered this quarter in a relatively strong position: The unemployment rate has been low and stable, and the disinflationary process has continued on a gradual, albeit uneven, path towards our 2 percent objective. Private domestic final purchases have been solid. Overall, the economy has been resilient.

Against that backdrop, the outlook has been clouded by trade policies that have led to an increase in uncertainty, contributing to declines in measures of consumer and business sentiment. I expect tariffs to lead to higher inflation in the United States and lower growth both in the United States and abroad starting later this year.

In my view, higher tariffs could lead to disruption to global supply chains and create persistent upward pressure on inflation. Faced with substantial tariffs, businesses will likely change how they source intermediate inputs, and it will take time and investment for them to reroute their distribution networks.

Conversely, global trade networks may change rapidly, and some suppliers may not be able to adapt quickly enough to survive these changes. This concern is particularly acute for small businesses, which are less diversified, less able to access credit, and hence more vulnerable to adverse shocks.

Small businesses play a vital role in production networks, often providing specialized inputs that can't easily be sourced elsewhere, and business failures could further disrupt supply chains. As we saw during the pandemic, such disruptions can have large and lasting effects on prices, as well as output.

I am equally concerned that tariffs will lead to higher unemployment as the economy slows. Thus, the FOMC may be in a difficult position if we were to see both rising inflation and rising unemployment.

The size and scope of the recent tariff increases are without modern precedent, we don't know their final form, and it is too soon to know how they will affect the economy. Yet given the economy's strong starting point and the progress we have made in bringing inflation back toward our 2 percent objective, monetary policy is in a good position to adjust as conditions unfold.

Meanwhile, we will also be closely monitoring how technologies like artificial intelligence are being integrated into economic activity and analysing the implications for how the economy will evolve.

Let me now return to the longer-term question of how AI will affect the labour market. Debate about machines replacing workers is nothing new, and even artificial intelligence is not particularly new either. AI has, in some form, arguably been around for decades. Computer scientists have been developing machine learning algorithms for many years, and these algorithms have been widely used in commercial applications, such as fraud detection and advertising.

Speech and facial recognition are already ubiquitous. These more long-standing forms of AI are continuing to improve, driving progress in domains ranging from finance to medical diagnosis, and becoming so deeply embedded in our daily lives that we scarcely notice them anymore.

But GenAI promises to go much further. Unlike traditional machine learning techniques, which often focus on relatively simple prediction and classification tasks, the large language models that have emerged in recent years can generate new content—anything from news articles to computer code to images and video to customer service dialogue.

Emerging forms of 'agentic' AI can undertake complex, multistep tasks—for example, taking a customer through a transaction and then placing an automated order. As AI continues to develop, it will increasingly be combined with physical technologies like autonomous vehicles and advanced robotics, further extending its ability to interact with the real world. And AI may be shaping up to become what the esteemed economist Zvi Griliches called an 'invention of a method of inventing' that speeds up the research and development process itself<sup>1</sup>.

Growing evidence indicates that AI will be a ‘general purpose technology’—such as railroads, electricity, or computers—which is characterized by widespread adoption, complementary progress in many downstream applications, and ongoing improvement in the core technology<sup>2</sup>.

Past general purpose technologies have dramatically improved productivity. So, against this background, the natural question is, what about AI?

In trying to understand how AI might transform work, it’s useful to consider how it could be applied in individual occupations, each of which comprises a range of tasks that vary in their susceptibility to automation.

Like past waves of information technology, AI will substitute for human labour in some tasks, complement human labour in other tasks, and spur the creation of new tasks that humans will perform, at least initially<sup>3</sup>.

The net effects of AI on employment, both in the aggregate and across demographic and education groups, will depend on the relative size of these offsetting effects.

A pessimistic view is that AI and robotics could become so capable and cost effective as to render most human labour obsolete, culminating in mass unemployment. Such concerns about technological advances are hardly a novel development. At least since the Luddites of the early 19<sup>th</sup> century tried to disable textile looms, people have feared that machines would bring about steep declines in employment, wages, and human welfare<sup>4</sup>.

Economists have long been sceptical of that view, which suffers from the ‘lump of labour fallacy’—the presumption that there’s a fixed amount of work to be done, so if machines do it, humans will not<sup>5</sup>.

New technologies do eliminate some existing occupations, and not all workers benefit from technological change. But technology also creates new occupations, and the many waves of technological advances over the centuries haven’t rendered humans obsolete.

For example, many of the tasks that were performed by humans in the 1950s are now performed by computers and robots, and yet the unemployment rate is similar to what it was back then, while the labour force participation rate is higher overall.

However, the amazing potential capabilities and breadth of applications associated with AI—many of which are already apparent—make it worth asking whether this time may be different. AI holds enormous promise of faster economic growth, advances in human health, and a higher standard of living.

But alongside the kinds of labour market disruptions seen in past episodes of revolutionary technological change, we will need to consider the possibility of more sweeping changes in the way we work.

*“AI is poised to transform our economy, likely in profound ways. But the speed and extent of that transformation are not yet clear. AI is likely to boost productivity, increase scientific discovery, and transform the nature of work. How these developments unfold will have important implications for society and for central bankers”*

### A scenario approach

In a previous speech, I outlined two hypothetical scenarios describing how AI could evolve<sup>6</sup>. In the first scenario, we see only incremental adoption that primarily augments what humans do today but still leads to significant and widespread productivity gains. In the second scenario, we see profound change, in which we extend human capabilities with far-reaching consequences.

Today, I will apply the same approach to analyse the potential effects of AI on the labour market. Of course, there is tremendous uncertainty about how AI will evolve and how it will affect the economy, as well as society more broadly. Amid this uncertainty, a scenario-based approach can give us a framework for thinking about the potential effects of AI on employment, real wages, and productivity, as well as for considering the possible role that government could play in influencing this transition.

### Scenario 1: incremental progress

Let’s start with the ‘gradual’ scenario, in which new AI technologies are adopted at a brisk, but not a breathless, pace or advance quickly at first and then plateau—perhaps because of constraints imposed by computing resources, the exhaustion of novel training data, and rising energy consumption.

Under this scenario, AI primarily operates by automating some—but not all—tasks within many occupations. We’ve seen some of this task substitution happen already: Computer programmers rely on AI copilots to write code, allowing them to focus on higher-level tasks, while customer support agents can use chatbots to improve and expedite their responses<sup>7</sup>. Lawyers draw on GenAI to conduct legal research, while AI-powered safety features improve the performance of human automobile drivers.

Under this scenario, as foundational models improve, novel use cases are discovered, and businesses continue to integrate AI into their operations, more and more occupations will be affected, and many jobs will use AI tools more intensively. As these technologies improve, even incremental change may

allow AI to become accurate and cheap enough to replace some occupations altogether.

It's hard to make predictions at this stage. But a plausible conjecture is that we could see, for example, fewer human programmers, lawyers, or commercial drivers. At the same time, most current occupations would persist in this scenario—albeit in modified and more productive forms.

Beyond existing occupations, general purpose technologies also encourage the creation of new occupations, fuelled by new products and novel ways of doing business. It's difficult to envision the novel jobs that will replace the ones we might lose to an incremental AI scenario.

But one possibility is that the future could bring us managers of AI agents, specialists in human–AI collaboration, ethicists, safety experts, and large numbers of people involved in adopting, maintaining, and educating about AI tools. Technology, and how we use a particular innovation, evolves in unpredictable ways, and we should expect to be surprised.

Under this scenario, jobs remain plentiful, real wages are buoyed by productivity gains, and employment and labour force participation remain high and could even rise, if strong wage growth entices new labour market entrants and if improvements in health care increase work capacity among older or disabled individuals.

If the widespread adoption of AI proceeds gradually, then workers will have time to adjust, reducing the disruption to the labour market—though, as with previous general purpose technologies, AI would likely imply that some groups of workers experience a painful process of dislocation and transition.

Retraining could help here. A recent survey carried out by the Federal Reserve Bank of New York found that many businesses plan to retrain their workers to use AI rather than laying them off<sup>8</sup>. In some cases, AI may disrupt career ladders by automating many entry-level tasks—such as reviewing legal documents or drafting code—that were historically performed by early-career workers.

But if labour demand changes slowly enough, students and workers are more likely to have time to predict which skills will be marketable and to make and recoup human capital investments before their skills become obsolete.

What about the effect of AI on inequality? Some research suggests that GenAI may help less-productive workers catch up to their more-productive peers<sup>9</sup>. That said, the AI economy will likely put a premium on digital skills, facility with new technologies, and adaptability. The precedent of the computer revolution suggests that highly educated workers may benefit most, boosting wage inequality—a phenomenon called 'skill-biased technological change'<sup>10</sup>.

Another possibility is that the labour share of income could decline, if capital owners benefit more than wage earners—for example, because the gains accruing from AI adoption go

to large, highly capitalized firms whose technical capabilities, consumer networks, and training data allow them to develop state-of-the-art AI techniques.

## Scenario 2: transformation

Now let's consider an alternative scenario in which AI completely transforms the economy. As I described in my earlier speech, in this transformative scenario, humans employ AI to unleash their imagination and creativity—combined with robust investment in research and development—to make rapid breakthroughs that have the potential to improve our lives.

With growth propelled by swift technological progress, society's resources would be vastly expanded, AI would spur revolutionary advances in health, and many individuals would enjoy more time for leisure activities.

Indeed, transformative AI could bring about a state of affairs that John Maynard Keynes famously envisioned almost a hundred years ago, one in which there are 'ever larger and larger classes and groups of people from whom problems of economic necessity have been practically removed'<sup>11</sup>.

At the same time, transformative AI could imply a much smaller role for human labour—a development that would entail sweeping social changes and profound challenges for government.

Under this scenario, AI would take over a broad range of existing jobs. As economist Anton Korinek writes, "*AI systems advance toward mastering all forms of cognitive work that can be performed by humans, including new tasks that don't even exist yet.*"<sup>12</sup>

Building on developments we are already starting to see, improved chatbots and AI agents would outperform their human counterparts in activities ranging from customer support to medical diagnosis. Along similar lines, advanced robotics could increasingly substitute for human workers in manual and production jobs.

Widespread automation would bring many benefits. The availability and quality of many services could increase markedly, and many less-desirable jobs—such as those involving tedious tasks or dangerous working conditions—could be transferred to machines.

What jobs *would* exist in this more transformative scenario? As in the more gradual scenario—and just as has happened in the past, when earlier general purpose technologies were adopted—we would see the emergence of new occupations. These would notably include jobs that involve managing the new AI-dominated economy. In addition, some existing occupations would likely persist, at least for some time. This would be the case for three key reasons.

First, some jobs may prove especially hard to automate. For example, plumbers and mechanics rely on physical dexterity and adaptability to situations—attributes that machines may find difficult to replicate, or to replicate cheaply.

Second, in some contexts, consumers may insist on a human touch. Patients may still want human doctors and therapists, while parents may want human teachers and caregivers to look after their children.

Third, even when AI has the technical capability to carry out tasks, some jobs are likely to be protected by laws and regulations. For example, legal and political systems would likely continue to insist on human judges and elected officials.

Eventually, however, an increasing share of current jobs may be automated. The technological frontier is moving quickly, consumers' preferences may change as they become more comfortable interacting with AI, and the regulatory landscape could evolve to provide broader roles for AI.

It's difficult to say how many jobs will exist under transformative AI. On the one hand, it's possible that—as has happened so often in the past—the economy will find inventive new ways to keep most people employed.

On the other hand, there are concerns that some workers could experience a large enough decline in their earnings potential that paid work may no longer be an available option.

Employment and labour force participation could fall; displaced workers may grapple with a loss of daily routines, social connectedness, and the meaning they derived from employment. The risk of a significant decline in employment looms large in many people's concerns about AI, and it's important for policymakers to be attentive to that risk.

Even if AI ultimately creates as many jobs as it eliminates, we should expect that the transition will be difficult. Existing firms would likely reorganize their production, laying off workers in the process. They could also lose market share to technologically sophisticated start-ups, which could scale up with a minimal number of human workers managing AI subordinates<sup>13</sup>.

Many displaced workers would have obsolete skills, and skill mismatch could lead to a structural increase in unemployment as these workers retool for new occupations. It is possible that unemployment might rise only temporarily. It is also possible, however, that more sustained increases could be observed. That would be the case if technology continued to evolve too quickly for many workers to keep up, leading to continual churn and ongoing dislocation.

How might transformative AI affect income inequality? Both traditionally high-wage occupations, such as lawyers and financial professionals, and lower-wage occupations, such as factory and retail workers, could be automated, and it is difficult to predict how AI would affect wage structures.

But the largest wage gains would likely go to the highest-skilled workers, as they would be best positioned to implement frontier technologies and help oversee the AI economy. In addition, if capital owners are the main beneficiaries, the labour share of income could decline precipitously.

Transformative AI could bring about profound improvements in living standards, leisure opportunities, and human



health. At the same time, society would confront profound distributional changes and potential challenges. Much would depend on how broadly the economic benefits are shared, how policymakers respond, and how society adapts to the rapid pace of change.

### How will we know which future we are living in?

The world looks very different across these two scenarios. As AI spreads throughout the economy, how will we know which world we're living in, particularly in view of the likelihood that AI adoption will proceed at different rates in different occupations and industries?

First, we will need to track how many businesses are using AI and how it is affecting their operations. Recent surveys give different impressions about AI adoption thus far, but they consistently show rapid increases in usage over time<sup>14</sup>.

Second, we will need to monitor AI's evolving technological capabilities. AI developers test their models against human performance in benchmark activities like standardized tests and visual tasks. Results of these tests will continue to provide important clues about which activities, and thus which occupations, are at risk of being automated.

Along these lines, economists have already developed measures of occupations' exposure to automation. They have based these measures on the characteristics of the tasks involved in different occupations<sup>15</sup>. Of course, as the set of tasks that AI can perform expands, these measures can be updated accordingly.

A third way to judge how AI is changing the economy is that data on job openings will likely be a leading indicator of changes in labour demand. What kinds of jobs are employers creating? What skills do they cite in job ads?<sup>16</sup>

And, lastly, job growth by occupation and industry is likely to reflect the emerging effects of AI. So far, the imprint of AI is difficult to discern in the employment statistics, but that is likely to change.

It may be difficult to disentangle the effects of AI from the other determinants of employment growth, especially in real time. But in the event of truly sweeping changes in the occupational structure, the effects of AI should show up in the data.

### Looking ahead

What do these two scenarios imply for society? In scenario 1, the issues that society has to address will be more straightforward. Policymakers will have to decide how to regulate emergent technologies, education and training programs will have to be tailored to shifts in labour demand, and some labour market regulations may need to be updated.

In scenario 2, the issues that society will need to address will be more profound. Questions will include how to ensure that the economic gains associated with AI are broadly shared across individuals and households, and how to adapt social institutions to a world in which many more individuals in

their prime working years may be working less. Fortunately, although this second scenario would entail many difficult challenges, it also implies a world in which society has many more resources to deploy against those challenges.

Those are some of the big questions that society may need to grapple with in the future, and most of these questions are not those that will be primarily addressed by monetary policymakers.

As a central banker, I can speak more specifically about how structural changes in the economy related to AI could affect monetary policy considerations—in particular, the Federal Reserve's dual mandate to promote maximum employment and stable prices. Monetary policy considerations could be affected in many ways; I will limit myself to two prominent possibilities.

First, AI may require monetary policymakers to reassess our estimates of the natural rate of unemployment, which informs our assessment of the cyclical state of the economy and thus the appropriate stance of monetary policy. The natural rate, which we call  $u^*$ , is the unemployment rate that corresponds to the maximum level of employment that can be maintained without producing undesirably high inflation.

Among other things,  $u^*$  depends on the efficiency with which matches are formed between workers and firms, and it could rise if shifts in labour demand across industries and occupations lead to skill mismatch and lengthy unemployment spells as workers retrain and switch careers. The natural rate also depends on the demographic composition of the labour force, which AI could affect.

If AI shifts the workforce toward groups that have higher labour force attachment but lower unemployment rates (such as college graduates), the result could be downward pressure on  $u^*$ . It should be stressed that  $u^*$  is never directly observed and is difficult to discern in real time. But economists use a wide range of models to estimate the natural rate, and we can use those models to see how  $u^*$  is changing as AI is adopted more widely<sup>17</sup>.

Another related consideration relevant for monetary policy is how economic changes due to AI will affect the neutral interest rate, or  $r^*$ , which is the level of the real interest rate consistent with the economy being at its potential and inflation being at our 2 percent objective.

Economic theory suggests that a permanently higher growth rate of productivity, of the kind that might arise under either AI scenario, tends to raise  $r^*$ . When that happens, a higher real interest rate would be required to deliver any desired monetary policy stance.

A challenge that we face is that it is difficult to work out in real time how  $r^*$  is evolving. But we can make judgments about developments in the behaviour of  $r^*$  by monitoring the relationship between economic activity and interest rates and by using financial market information to estimate longer-run real interest rates.

## Conclusion

I'll return to the broader point and conclude. AI is poised to transform our economy, likely in profound ways. But the speed and extent of that transformation are not yet clear. AI

is likely to boost productivity, increase scientific discovery, and transform the nature of work. How these developments unfold will have important implications for society and for central bankers. ■

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13. See Erin Griffith (2025), "A.I. Is Changing How Silicon Valley Builds Start-Ups," *New York Times*, February 20. See also Microsoft (2025), 2025: The Year the Frontier Firm Is Born, *Work Trend Index Annual Report*, April 23.
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16. See Daron Acemoglu, David Autor, Jonathon Hazell, and Pascual Restrepo (2022), "Artificial Intelligence and Jobs: Evidence from Online Vacancies," *Journal of Labor Economics*, vol. 40 (April), pp. S293–340.
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The views expressed here are my own and are not necessarily those of my colleagues on the Federal Reserve Board or the Federal Open Market Committee. This article is based on a speech delivered at the Reykjavik Economic Conference 2025, Central Bank of Iceland, Reykjavik, Iceland, May 09, 2025.



# Driving innovation in Africa

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In recent years, the African continent has been grappling with several critical policy debates around fostering innovation and economic growth. One such debate is the role of labour mobility in driving productivity and innovation, particularly in the context of low- and medium-income economies.

A growing body of research highlights the importance of mobility in the global knowledge economy, with studies showing that the movement of people across borders can stimulate the exchange of ideas, skills, and technologies (Bahar *et al* 2020). However, much of this literature has focused on high-income countries, leaving a gap in understanding the effects of short-term mobility on innovation in Africa.

In this column, I draw on research, conducted with Assi Okara and Massimiliano Tani, to show how short-term international mobility – especially for business and professional visits – has a unique and significant impact on innovation in African firms (Mbaye *et al* 2024).

We demonstrate that mobility, even on a short-term basis, is a powerful driver of innovation in products and services, particularly in comparison with the rest of the world.

## **Short-term labour mobility and innovation in Africa**

Our findings reveal that short-term international mobility – defined here as visits lasting less than a year – has a notable and positive effect on innovation, particularly in African countries.

While labour mobility is widely recognised as a driver of innovation in high-tech industries in advanced economies (Bahar and Rapoport 2018), our research suggests that in Africa, the effect is strongest in sectors where innovation is more related to product and service development rather than process innovation.

A 10% increase in short-term mobility per 10,000 inhabitants raises the probability of innovation by 0.43%. More importantly, this effect is stronger in Africa than in other regions of the world. When we examine the interaction between short-term mobility and innovation in African countries, we find that mobility significantly increases the likelihood of innovation

in both products and services, particularly in low-technology sectors.

The importance of these findings lies in the fact that innovation in African countries has historically been hampered by a lack of technological infrastructure and investment. Short-term mobility appears to be an effective mechanism for bridging this gap, allowing firms to access new ideas and expertise from outside their local environments.

## **Business visits: a key driver of innovation**

Not all types of short-term mobility have the same impact on innovation. Our first measure of short-term mobility captures arrivals for different purposes, such as business visits, leisure travel, and professional exchanges. When we focus exclusively on business visits, we find that they have a particularly strong impact on the likelihood of African firms innovating.

Put differently, we find even stronger evidence that African firms are more likely to innovate than firms in other parts of the world as business visits increase. This is because business visits often involve direct interaction with firms, facilitating the exchange of knowledge, technology, and practices that can directly enhance firms' innovation capabilities. The significance of this finding cannot be overstated.

Short-term business visits allow African firms to integrate into global value chains, gain exposure to cutting-edge technologies, and adopt best practices from more developed economies. These exchanges, though difficult to quantify, represent a crucial form of knowledge transfer that supports innovation and growth in African countries.

Our results align with previous research on the role of business visits in stimulating innovation. For instance, a study by D'Este and Patel (2007) found that university researchers that engage in international collaborations – whether through meetings and conferences, joint research, or other forms of mobility – are more likely to introduce new products and processes.

In our context, business visits offer African firms the opportunity to tap into global networks of knowledge and expertise, thus accelerating their innovation capacity.

Policy implications: leveraging short-term mobility for innovation

Our findings have important policy implications for African countries looking to promote innovation and economic development. First and foremost, the positive relationship between short-term mobility and innovation suggests that policymakers should prioritise facilitating the movement of people across borders. This could be achieved through a range of measures aimed at improving access to international markets, fostering collaboration, and promoting knowledge exchange:

**Promote regional mobility within Africa:** African countries should implement and strengthen the Free Movement Protocols of the African Union, which would allow for the free movement of skilled professionals, entrepreneurs, and innovators across the continent. This would not only promote intra-Africa trade but also facilitate knowledge transfer within the region, enhancing innovation capacity across African economies.

**Leverage the African Continental Free Trade Area (AfCFTA):** the AfCFTA could be a game-changer for Africa by encouraging the free movement of people and services. This would allow African firms to engage more directly with global supply chains, attract foreign expertise, and enhance their innovation capabilities. By promoting mobility through the AfCFTA, Africa can foster a more dynamic and competitive business environment.

**Attract business and professional visits:** African policymakers should focus on attracting short-term business visits by making it easier for international entrepreneurs and professionals to visit Africa. Simplifying visa procedures, establishing innovation hubs, and hosting international business events and conferences could help African firms gain exposure to global best practices and cutting-edge technologies.

**Encourage mobility from technologically advanced countries:** our research suggests that the origin of short-term visitors plays a key role in the innovation outcomes of the receiving country.

Therefore, policymakers should focus on initiatives that encourage mobility from technologically advanced countries. This could involve creating partnerships with top innovating nations, facilitating knowledge exchange programmes, and encouraging temporary assignments in high-tech sectors.

*“Our research highlights the positive and higher impact that mobility has on innovation in African countries compared to the rest of the world”*

This is also an opportunity to leverage the knowledge and expertise of the African Diaspora living in advanced countries.

**Invest in data collection and knowledge sharing:** to fully realise the benefits of short-term labour mobility, African countries should invest in better data collection on the flows of people across borders. This would help policymakers understand the specific types of mobility that have the greatest impact on innovation and adjust their policies accordingly. Moreover, fostering platforms for knowledge sharing – whether through virtual networks or physical collaboration hubs – could further amplify the impact of labour mobility on innovation.

### Conclusion

In conclusion, short-term labour mobility – especially in the form of business and professional visits – emerges as a key driver of innovation in Africa. Our research highlights the positive and higher impact that mobility has on innovation in African countries compared to the rest of the world. By leveraging mobility, African countries can tap into global knowledge networks, foster innovation, and boost their economic growth prospects.

Policymakers should recognise the value of short-term mobility as a tool for enhancing innovation capacity and design policies that facilitate the free movement of people, particularly skilled workers and entrepreneurs. In doing so, they can help unlock new opportunities for innovation, productivity growth, and economic development across the continent. As Africa continues to face numerous challenges in terms of technological development and industrialisation, short-term labour mobility could prove to be a vital lever for progress. ■

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# Nature's bell tolls for thee, economy!

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**N**ature isn't just the roots and shoots of biologists, macroecologists and natural scientists. Beyond its intrinsic value, nature provides vital services that are relevant for all of us – for entrepreneurs, workers, policymakers and bankers, but also for central bankers and financial supervisors.

A thriving natural environment provides vital benefits that sustain our well-being and serve as a crucial driving force for the global economy. Think of fertile soils, pollination, timber, fishing stocks, clean water and clean air.

But we are well aware of the daunting facts that confirm the dire state of ecosystem services. Intensive land use, the climate crisis, pollution, overexploitation and other human pressures are rapidly and severely damaging our natural resources. 75% of land surface ecosystems and 66% of ocean ecosystems have been damaged, degraded or modified.

We are using natural resources 1.7 times faster than ecosystems can regenerate them. Consequently, the contribution that nature can make to our economies – and our way of life – is steadily diminishing every day.

These fateful facts and figures confront us as vividly as Edvard Munch's iconic scream. Yet, accounting for nature and the services it provides is challenging. What nature provides to the economy is typically not measured directly in statistics like GDP.

We price portfolios instead of pollinators, we monitor markets instead of mangroves and we watch wages instead of water supplies. However, the reality is that while our economies are heavily reliant on ecosystem services, the economic value of those pollinators, mangroves and water supplies is not sufficiently taken into account.

Nature is too often still wrongly seen as a free good, readily available and abundant in supply, without opportunity costs. For such a good, there is no market – and therefore no price. So, why can't governments intervene by pricing and creating a market for nature as has been done for emissions?

Unlike for the climate crisis – which can be quantified through carbon emissions and their direct links to rising temperatures

– there is no single metric that can be used to quantify the wide range of ecosystem services.

What is the common denominator of clean air, fertile soils and coasts protected by mangrove forests? Nature is beautifully complex, but this complexity makes it harder to establish a market for nature than a market for climate, such as the carbon markets created through emissions trading systems.

For central banks to effectively fulfil their mandates, we need to enhance our capacity to measure the vital services that nature provides to our economy and identify the financial risks caused by the degradation of these services. And while this is admittedly not an easy task, it is encouraging that multiple stakeholders are making progress, including academia, firms and also the ECB.

We are enhancing our tools, methodologies and data to assess the economic implications of ecosystems and their degradation. And I am pleased to be able to share some of our latest insights.

I will argue that while nature services may appear to be freely available, they are in fact not abundant at all and there are substantial costs to using and losing them. Costs that we currently overlook when headlines report on GDP growth.

## **Accounting for nature in monetary policy and banking supervision**

Nature being of vital importance for the economy and the financial system is hardly a novel insight. Besides scientists, a number of central banks and prudential supervisors have also been highlighting their interlinkages for several years now<sup>1</sup>. And while the climate crisis has received most of the attention, it is encouraging that work on nature-related risks has also significantly evolved.

Moreover, the ECB has taken significant steps to account for nature-related risks in the pursuit of its mandate. For instance, we take into account the effects nature degradation can have on banks' balance sheets. The degradation of nature could damage companies' production processes and consequently weaken their creditworthiness, which might in turn impair loans granted by banks.

In our role as the supervisor of Europe’s largest banks, we therefore aim to ensure that the banks we supervise adequately manage both climate-related and nature-related risks<sup>2</sup>. Encouragingly, we are seeing a growing set of good practices among the banks we supervise in terms of identifying, quantifying and managing nature-related risks.

But are we fully aware of – and sufficiently alert to – how nature degradation could eventually hit balance sheets? Advancing our understanding does not mean that economists and supervisors should start studying ants in Aragon, ladybirds in Lombardy or honeybees in Holland (although it is very important that entomologists do!). Instead, central banks and supervisors need to gain a better understanding of just how vulnerable the economy and the financial system are to nature degradation<sup>3</sup>.

**Capturing the risks related to ecosystem degradation**  
An ECB study in 2023 found that nearly 75% of banks’ corporate lending goes to firms that are highly dependent on at least one ecosystem service<sup>4</sup>. This finding underscores just how interconnected nature, the economy and the financial system really are<sup>5</sup>. But that study does not tell us exactly how much of our economic activity is at risk, or which economic sectors and regions will be most affected.

To better understand this impact, the ECB has teamed up with the Resilient Planet Finance Lab at the University of Oxford. The interdisciplinary team has developed systemic risk indicators that move beyond dependency analysis to a comprehensive assessment of nature-related financial risks.

In essence, this indicator assesses the economic implications of the deteriorating state of ecosystems. It shows how much of the economic value added by a particular industry– what economists call ‘gross value added’ – is at risk when ecosystem services degrade. We have published a blog post showing

*“As a consequence of water scarcity our economies could produce less, and production costs are likely to rise during any inevitable transition phase”*

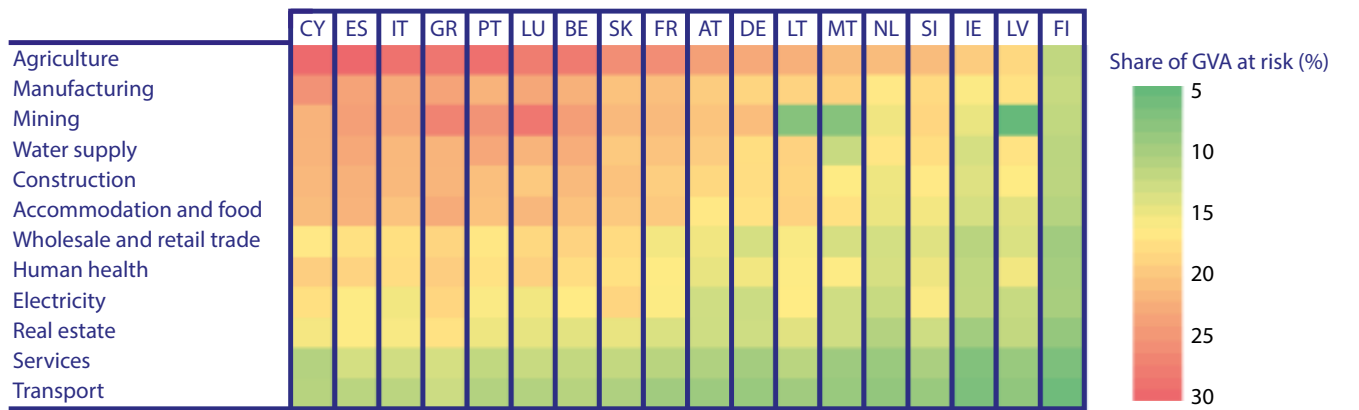
some of the preliminary results of our work, but I can already share some findings with you.

**Water – the natural currency underwriting purchases, investments and trades**  
Our preliminary findings indicate two things. First, water – too little, too much or too dirty water that is –has been identified as posing the most significant risk to the euro area economy. Losses related to water scarcity, poor water quality and flood protection emerge as the most critical from a value added perspective.

Concretely, surface water scarcity alone puts almost 15% of the euro area’s economic output at risk. This is not surprising because water is not just any resource – it is one of the most essential natural resources we possess. Second, agriculture is the most exposed sector, as it would suffer the largest proportional output losses due to a decline in surface water. But other sectors are also likely to be significantly affected.

Water is, for instance, an indispensable resource in industry. In the Netherlands, industry alone uses over 2.6 trillion litres of fresh water a year<sup>6</sup>. This water usage is more than three times the total annual water consumption of all households in the Netherlands.

**Chart 1. Proportion of national gross value added (GVA) at risk due to surface water scarcity in Europe and globally (supply chain risks)**



Water is also essential for energy production, not only in hydropower plants but also in thermal power plants – including nuclear – where it is used for cooling and steam generation. It is consumed in vast quantities for mining and mineral processing, which are crucial for the energy transition, as well as in the construction sector for producing concrete, to name just a few examples.

The risk posed by water scarcity is not hypothetical, we are already experiencing the impact today. I am sure that many of you remember when the summers of 2018, 2019 and 2020 brought severe droughts and heatwaves even to the Netherlands. In 2018 alone, economic losses in the Netherlands were up to €1.9 billion for agriculture and €155 million for shipping, with widespread but hard-to-quantify damage to ecosystems.

This year's drought is especially alarming: spring 2025 is on track to become the driest ever recorded in the Netherlands, likely surpassing the previous record set nearly 50 years ago. And droughts are only projected to increase further as the climate crisis continues to develop.

Worryingly, in the driest scenario an average summer in the 2040s will be about as dry as an extremely dry summer now. Effective water management will thus be crucial for sustaining production. However, the risk persists that during periods of drought, production might need to be scaled down. Some industrial processes may become economically unviable and might need to relocate.

For example, some have even gone as far as to point at a risk that more frequent droughts could render traditional tulip-growing regions such as the Bollenstreek unsuitable for bulb cultivation<sup>7</sup>. This may compel growers to explore better-positioned locations where water is more reliably available to safeguard the iconic Dutch tulip industry.

Hence, as a consequence of water scarcity, our economies could produce less, and production costs are likely to rise during any inevitable transition phase.

Let me also point out that biodiversity is a critical – and often underestimated – factor in ensuring the availability and quality of fresh water. Ecosystems such as forests and



wetlands regulate the quantity, timing and purity of water flows by stabilising soils and filtering pollutants.

Maintaining healthy and diverse ecosystems will be crucial for resilient water provisioning as climate change intensifies, particularly in regions facing growing water stress.

Beyond these macroeconomic impacts, ecosystem degradation can significantly affect financial stability, for example through the loans that banks grant to households and firms. In essence, the greater the impact on firms, the higher the risk of defaults and the higher the risk on banks' balance sheets.

For example, in our research with the University of Oxford we found that more than 34% of banks' total outstanding nominal amount – over €1.3 trillion – is currently extended to sectors exposed to high water scarcity risk.

As the next step in our research, we will examine changes in the probability of default in the sectors most affected by dwindling ecosystems. Think about it as stress-testing the

resilience of banks' credit portfolios to nature degradation. We plan to publish these results later this year, complete with a more in-depth analysis on the topic, so stay tuned.

### **Multiple stakeholders are taking action**

Encouragingly, our work with the University of Oxford is not an isolated case. We are in fact seeing a wide range of stakeholders taking action to better account for ecosystem services. For instance, I hear that the Naturalis Biodiversity Center has teamed up with banks to combine insights from science and finance to further develop indicators quantifying ecosystem services.

We are also seeing a growing set of good practices among the banks we supervise in terms of identifying, quantifying and managing nature-related risks. Banks typically conduct materiality assessments to understand where they are most affected. And banks also grapple with the challenge that nature-related risks are difficult to express in a single metric. Once they know where they are exposed, they then typically conduct deep dives on specific topics.

One bank, for example, has conducted a quantitative scenario analysis to understand how the profitability of its customers could be affected if a water pollution tax were to be implemented.

Other banks design customer scorecards and engage with the most vulnerable counterparties, sometimes offering small discounts or other incentives when customers meet key performance indicators that increase their resilience.

It is also encouraging that progress is being made at the international level. The Network for Greening the Financial System (NGFS) – a network of 145 central banks and supervisors from around the world – has developed a conceptual framework offering central banks and supervisors a common understanding of nature-related financial risks and a principle-based risk assessment approach<sup>8,9</sup>.

And the Financial Stability Board recently took stock of supervisory and regulatory initiatives among its members, finding that a growing number of financial authorities are considering the potential implications of nature-related risks for the financial sector<sup>10</sup>.

So scientists, banks, policymakers and supervisors are in fact taking action. That's good news. Given the high level of uncertainty regarding impacts, non-linearities, tipping points and irreversibility, continuous scientific input and engagement are essential to determine the transmission channels from nature to our economies.

### **Reliable and comparable data are key to managing risks and identifying opportunities**

Before I conclude, let me stress a vital enabler to better measure ecosystem services: data. Closer cooperation with natural scientists can help us better understand the data they have available on the status of nature and the ecosystem services it provides. The National Hub for Biodiversity Information is an excellent example<sup>11</sup>.



Moreover, continuous engagement with the scientific community can also help improve our understanding of non-linearities, tipping points and the irreversibility of the biodiversity crisis.

Similarly, the availability of reliable and comparable data from companies is essential for us to know where the risks are hiding and where opportunities can be found. Such data can, for example, provide insights into companies' reliance on fresh water for their production processes.

In this context, the reporting requirements in the EU's sustainable finance framework are not merely a 'nice to have', they are providing indispensable information about financial risks and are a solution to the patchwork of different reporting criteria.

Does that mean that there is no room for simplification? Does it mean that there is no room to ease the reporting burden on smaller firms? Of course not. As the ECB noted in its recent opinion<sup>12</sup> on the Commission's omnibus package, striking the right balance is crucial – the balance between how much data firms report and how many firms are required to do so.

Excluding too many firms from the Corporate Sustainability Reporting Directive may reduce the availability of vital data needed to assess climate-and nature related financial risks.

So when carefully calibrating a balanced degree of simplification, one should look at what data points we need

most and make sure that sufficient companies report on precisely those data.

Not only because reliable and comparable data are important for identifying economic impacts and managing financial risks, but also because such data helps identify investment opportunities to unlock a clean, green and competitive European economy.

### Conclusion

Encouragingly, multiple stakeholders are making progress in better accounting for ecosystem services. That's good news, and this work must continue. Because dwindling ecosystems are no longer peripheral – they are central to financial stability, the economy and, ultimately, our daily lives.

When you saw the title of my remarks this evening, some of you might have recognised a reference to John Donne's poem *For Whom the Bell Tolls*. Donne beautifully expresses that we are all part of a bigger whole: "*No man is an island, Entire of itself.*"

Nor is our economy an island – it is not 'entire of itself', it depends on nature.

*If nature's services suffer,  
And they do!  
Send not to know  
For whom the bell tolls.  
It tolls for thee, ECONomy! ■*

### Endnotes

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2. This is in line with the supervisory guide that we published in 2020 containing expectations about banks' risk management practices for both climate-related and nature-related risks. See ECB (2020), op. cit.; Elderson, F (2022), "Natura finis magistra – acknowledging nature-related risks to make finance thrive", keynote speech at De Nederlandsche Bank/Official Monetary and Financial Institutions Forum conference on "Moving beyond climate: integrating biodiversity into financial markets" at Artis Zoo in Amsterdam, 29 September; Elderson, F (2024), "Taking into account climate and nature in monetary policy and banking supervision around the world", remarks at an event on climate-related financial risks hosted by the Banco Central do Brasil, 27 March. The ECB has also made nature one of the focus areas of its climate and nature plan for 2024 and 2025.
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9. Last year the NGFS published a report on nature-related litigation to raise awareness among financial institutions, central banks and supervisors. The report highlighted that while nature-related litigation is still in its infancy, the number of cases is expected to grow rapidly. This trend underlines the real risk of doing too little for governments, companies, banks, central banks and supervisors. See Network for Greening the Financial System (2024), *Nature-related litigation: emerging trends and lessons learned from climate-related litigation*, July.
10. Financial Stability Board (2024), *Stocktake on Nature-related risks: Supervisory and regulatory approaches and perspectives on financial risk*, 18 July.
11. See the Naturalis Biodiversity Center website for further information.
12. Opinion of the European Central Bank of 8 May 2025 on proposals for amendments to corporate sustainability reporting and due diligence requirements (CON/2025/10).

This article is based on a keynote speech delivered at the Naturalis Biodiversity Center, Leiden, 22 May 2025.



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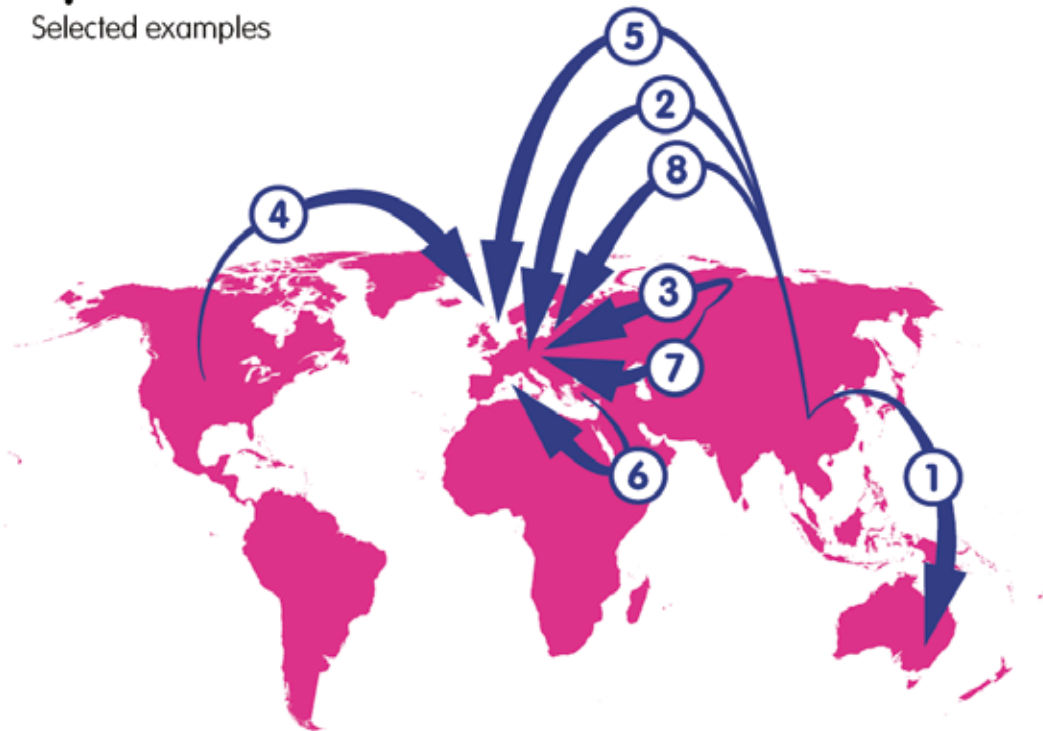
**[worldcommercereview.com](http://worldcommercereview.com)**

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## The EU is increasingly threatened by economic coercion

Selected examples



1. Chinese curb on Australian exports to push back against an investigation into the origins of covid-19 (2020)

2. Chinese threat of car tariffs to pressure Germany into accepting Huawei's 5G infrastructure (2019)

3. Russian ban on Polish imports of fruit and vegetables following EU sanctions over the war in Ukraine (2014)

4. US threat of section 301 tariffs to prevent France and other European countries from levying taxes on digital services (2020)

5. Chinese 'popular boycott' of EU companies (such as Adidas and H&M) following EU sanctions on Chinese officials involved in human rights violations in Xinjiang (2021)

6. Turkish boycott of French-labelled goods following President Emmanuel Macron's announcement of policies to combat extremism (2020)

7. Russian threat to ban Czech beer imports following Czech government's declaration of links between Russian intelligence services and the 2014 Czech warehouse explosions (2021)

8. Reported Chinese suspension of rail freight to Lithuania and block on export permits for Lithuanian producers in reaction to the announcement that a Taiwanese Representative Office would open in Lithuania (2020)

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