



Brief

The Geoeconomic Decade

Joachim Klement



**CFA Institute
Research
Foundation**

The Geoeconomic Decade

Joachim Klement

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THE GEOECONOMIC DECADE

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In 2021, the CFA Institute Research Foundation published a monograph titled “[Geo-Economics: The Interplay between Geopolitics, Economics, and Investments](#).” It reviewed the academic research on how geopolitical events influence financial markets and investigated four geopolitical trends that could influence the 2020s.

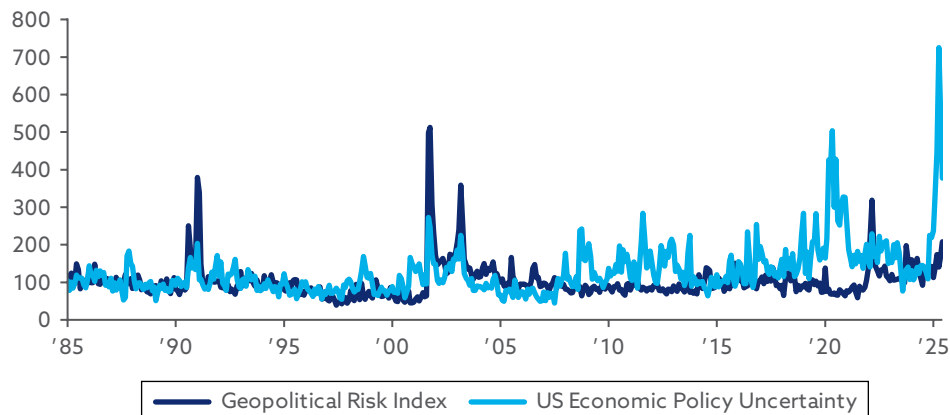
Since then, geopolitical risks have increased in frequency and severity alike, as evidenced by the numerous spikes in the Geopolitical Risk Index (GPR) and Economic Policy Uncertainty Index (EPU). **Exhibit 1** illustrates this increased risk.

The GPR, which saw major spikes after the September 11 terrorist attacks in 2001 and the start of the Iraq War in 2003, had been rather docile for almost two decades until Russia invaded Ukraine in February 2022. It spiked again in 2024, when tensions in Gaza and between Israel and Iran increased, and again in 2025, when Israel and Iran entered a 12-day armed conflict.

The EPU has spiked more frequently in recent years as well. During US President Donald Trump’s first administration, the EPU for the United States increased steadily as he engaged in a trade war with China and imposed tariffs on steel, aluminium, and other goods. The COVID-19 pandemic then created the largest spike in economic policy uncertainty recorded to that point. The resurgence of supply-side shocks to inflation in 2022 created another spike in economic policy uncertainty. Still, the EPU shot to the highest levels ever with the start of Trump’s second term in 2025 and the imposition of tariffs on most US trade partners.

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Exhibit 1. Geopolitical Risks Have Increased Since 2020



Sources: Data from Baker, Bloom, and Davis (2016); Caldara and Iacoviello (2021); Bloomberg; and Policyuncertainty.com.

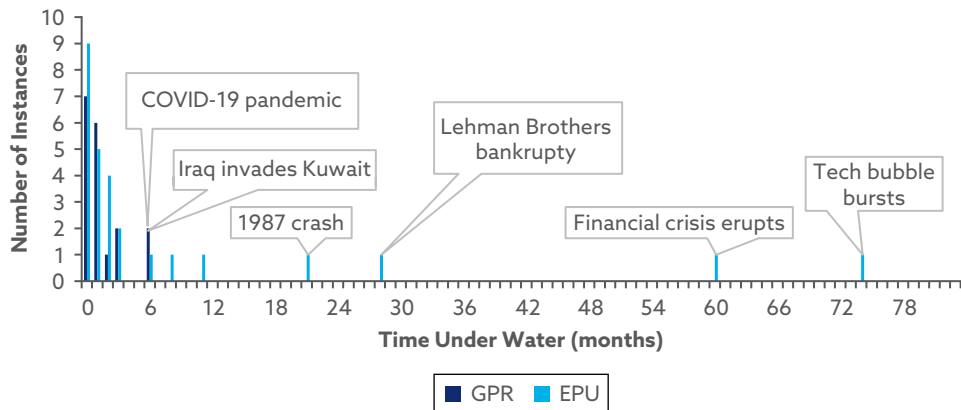
Geoeconomics refers to how geopolitical events influence the economy and financial markets. In this brief, however, I use a broader definition of the term “geopolitics” than do some scholars of international affairs. Often, geopolitical risks are narrowly defined as risks from wars, terrorism, and civil unrest, as in the GPR. In my view, the economic dimension of international affairs, such as international trade and global information flows, counts as geopolitical because these events are deeply political developments that affect more than one country and shape international relations as well as financial markets.

Although spikes seem to have become larger and more frequent, Exhibit 1 shows that they also tend to be short lived. An analysis of how the S&P 500 Index reacts to spikes in the GPR and EPU reveals that, in most cases, any drawdowns in the stock market are recovered within one to two months following a geopolitical shock. Examining the data back to 1985, when the GPR and EPU indices started tracking these risks, revealed no spike in the GPR that led to an equity market drawdown lasting more than six months. In the EPU, only six spike events led to stock markets slumps lasting longer than six months. **Exhibit 2** annotates the events that created these longer-lasting stock market drawdowns.

This is why I quip, “Nine out of ten geopolitical crises don’t matter, but the tenth does.” To understand how to think about geopolitical events as an investor, I introduce a case study based on Russia’s 2022 invasion of Ukraine. Later, I review the rivalry between the United States and China, before discussing the geoeconomic impact of climate change and the energy transition. Finally, I conclude with a discussion of a more recent development in financial markets: the increasing risk premium on US Treasuries and the possible demise of the US dollar as the global reference currency.

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Exhibit 2. Most Geopolitical Events Are Digested Quickly



Note: Time under water is the time it takes for the stock market to recover losses incurred from the external shock.

Sources: Data from Baker et al. (2016); Caldara and Iacoviello (2021); Bloomberg; and Policyuncertainty.com.

Incorporating Geopolitical Analysis into the Investment Process: A Case Study

To understand how geopolitical events influence economies and financial markets, I revisit the fair value equation for a financial asset with uncertain future cash flows. Note that I focus mostly on industrial rather than emerging markets, a decision that solely reflects my expertise.

The fair value (FV) of a financial asset with uncertain future cash flows is given as the sum of the expected value of future cash flows at time t ($E[CF_t]$), discounted to the present day with a discount rate that reflects the real risk-free rate r_f , expected inflation π , and the risk premium of the asset k , as follows:

$$FV = \sum_{t=0}^{\infty} \frac{E[CF_t]}{(1 + r_f + \pi + k)^t}. \quad (1)$$

The initial reaction of investors to any geopolitical shock is to increase the risk premium k and move into safe assets. The crucial question for investors, then, is whether the geopolitical event *persistently and significantly* alters the other variables in Equation 1. In most cases, especially narrowly defined geopolitical events such as foreign wars, terror attacks, or civil unrest abroad, they do not. In this case, the risk premium will quickly revert to normal and financial markets will recover.

This scenario was the case after the Russian invasion of Ukraine in February 2022, as well as after the September 11 attacks in the United States and various terror attacks in Europe in the 2000s. In each case, the increase in the risk premium created a drop in share prices, but markets recovered within weeks or even days as it became clear that no permanent change had occurred in inflation, real rates, or expected cash flows.

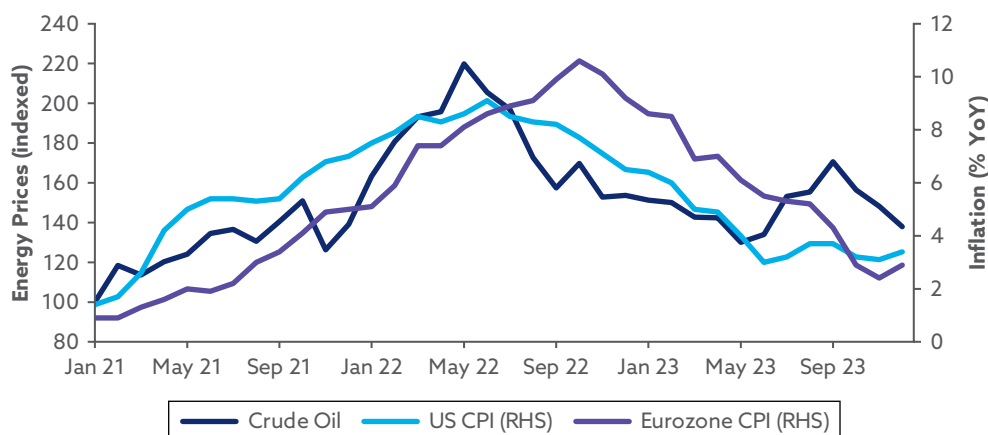
For example, the S&P 500 dropped 5% in response to Russia invading Ukraine in 2022, and the MSCI Europe dropped 8%. Both indices, however, recovered all of these losses and more within three weeks.

This pattern leads us to the first important observation: Most geopolitical events have only a short-term impact on financial markets or the economy as the risk premium increases. If no permanent change occurs in inflation expectations, real rates, or expected cash flows, sentiment will soon normalise, and asset prices will recover. Therefore, it often is the right reaction to buy assets that have sold off excessively in a market panic following the outbreak of a war or a terror attack.

Geopolitics Doesn't Matter, Until It Does

When a geopolitical event leads to a sustained change in the long-term outlook for a financial asset, however, the dynamic becomes more complicated. For example, when Western countries enacted severe sanctions against Russia after it invaded Ukraine, they meaningfully changed future expected cash flows and expectations for future inflation. Focusing on stock markets for this case study, **Exhibit 3** illustrates that sanctions against Russian oil and gas exports reduced global oil supply (and, importantly, the supply of natural gas in Europe). This shift increased energy prices and triggered a supply-side shock to inflation.

Exhibit 3. From Energy Shock to Inflation Shock



Sources: Data from Panmure Liberum and Bloomberg.

Investors adjusted their estimates for future inflation accordingly, which meant the discount rate for future cash flows increased and stock markets came under pressure. Meanwhile, investors also adjusted their expected future cash flows.

These adjustments reflected a series of observations. Oil and gas companies saw their expected cash flows rise as oil and gas prices spiked, and investors expected supply to be permanently reduced as Western sanctions prevented part of the Russian output from being exported. This increase in expected cash flows offset the increase in discount rates and pushed the share prices of these companies higher. Meanwhile, businesses, such as retailers that use energy as an input, saw their future cash flows curtailed as costs rose for heating stores and offices as well as for transport. The cumulative effect reduced profit margins, creating a larger decline than the market average.

This brings us to the second important observation: Geopolitical events can move future expected cash flows higher or lower depending on the nature of the event and the financial asset in question. What may be bad news for one asset may be good news for others. Market reactions to sustained geopolitical shocks are not uniform.

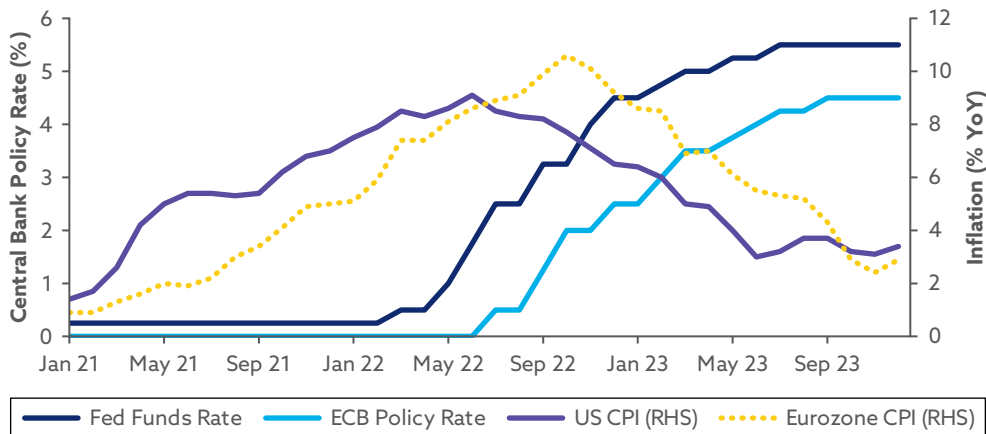
In 2022, higher energy inflation spilt over into core inflation, forcing central banks to hike interest rates, which exacerbated the situation and pushed stocks into a bear market (**Exhibit 4**). This increase in the real risk-free rate component of the discount rate reduced expected future cash flows for businesses with high financial leverage. Finally, as inflation declined again and policy rates peaked, the discount rates for stocks began to decline and shares rallied to new highs.

This leads us to the third important observation: Second-round effects, such as the reactions of central banks and governments to geopolitical events, can shift fair values mostly by changing the discount rate (and, rarely, by changing expected cash flows). Because the fair value of financial assets is sensitive to small changes in discount rates, the market reaction to government and central bank intervention can be large, even if the intervention is relatively small.

Europe's Rearmament as a Key Geopolitical Trend

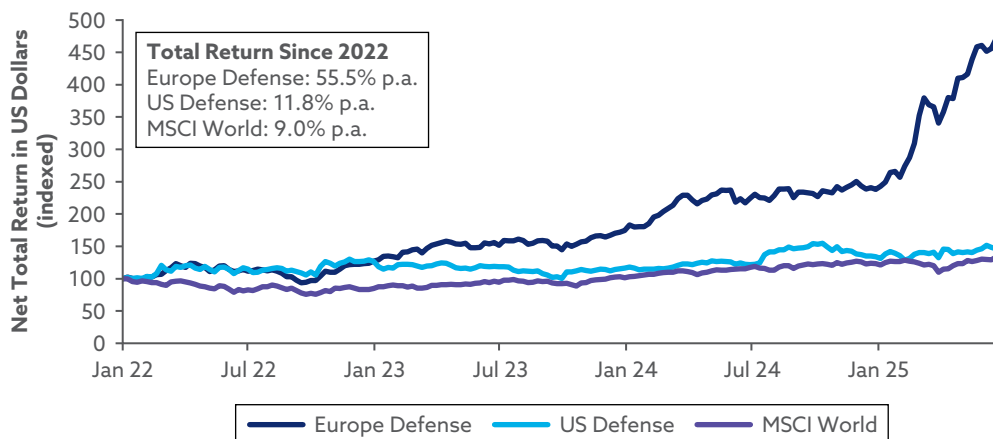
From an investment perspective, what makes the Russia-Ukraine War particularly interesting is that it also sparked a new goeconomic trend with what appear to be lasting investment implications. Because Russia's aggression poses a direct threat to members of the EU and North Atlantic Treaty Organization (NATO), it triggered a strong rally in European defence stocks. Since the start of 2022, European defence stocks have seen annual returns of more than 50%, comfortably outpacing not only their US peers and global stock markets but even the high-flying US technology sector (**Exhibit 5**).

Exhibit 4. From Inflation Shock to Higher Real Rates



Sources: Data from Panmure Liberum and Bloomberg.

Exhibit 5. European Defence Stocks Have Been on a Steep Rally Since 2022



Source: Data from Panmure Liberum and Bloomberg.

At the end of 2021, only five NATO members other than the United States met the target to spend at least 2% of gross domestic product (GDP) on defence. In 2024, 23 of the 31 NATO members did, with countries such as Poland and Estonia outpacing the United States.¹ Finally, in June 2025, NATO members committed to achieving defence spending of 3.5% of GDP, plus an additional 1.5% of GDP on support capabilities such as critical infrastructure and civil preparedness.²

Although this increase in defence spending has primarily benefitted European defence contractors, it will increasingly boost GDP growth across Europe as well as earnings growth for European companies.

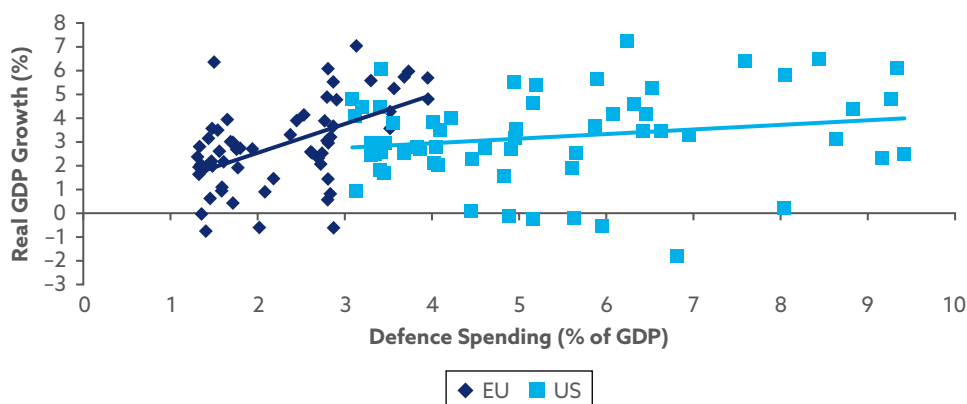
The conventional view is that defence spending has a relatively low fiscal multiplier, ranging from 0.3 to 0.7, meaning that every Euro spent on defence increases GDP by 0.3 to 0.7 Euro in the long run (Ilzetzki, Mendoza, and Végh 2013).

Increasing evidence shows, however, that outside the United States, the fiscal multiplier may be much higher. Sheremirov and Spirovska (2022) analysed defence spending in 129 countries between 1988 and 2013. They found that in industrial countries, the average fiscal multiplier is slightly above 1.0, whereas for developing economies it is slightly below 1.0.

Exhibit 6 presents a simple scatterplot of the relationship between defence spending and GDP growth in the EU and the United States, dating back to 1970. Although the fiscal multiplier is close to 0.5 in the United States, it is close to 1.0 in the EU.

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Exhibit 6. Defence Spending with a Larger Fiscal Multiplier in the EU Than in the United States



Source: Data from World Bank.

¹"Defence Expenditures of NATO Countries (2014–2024)," NATO, updated 17 June 2024, https://www.nato.int/cps/en/natohq/news_226465.htm.

²"Defence Expenditures and NATO's 5% Commitment," NATO, 27 August 2025, https://www.nato.int/cps/en/natohq/topics_49198.htm.

Sarasa-Flores (2025) also found fiscal multipliers in the EU above 1.0 but reported particularly high fiscal multipliers (in the range of 1.5) for countries that rely less on imported arms and weapons. This result is important for the EU's Readiness 2030 programme, which aims to unlock up to EUR800 billion of defence spending (4.3% of EU GDP) over the next five years. In the past, European countries predominantly purchased US arms. Instead, Readiness 2030 follows a Europe-first approach to keep government spending in the EU and reduce geopolitical dependencies on the United States.

Even if we make the conservative assumption of a fiscal multiplier of 0.5, the increase in defence spending in the EU and the United Kingdom (where the government has committed to increasing defence spending to 3% of GDP by 2030)³ creates a broad-based acceleration of corporate earnings growth. Asian countries, such as South Korea, also tend to show higher fiscal multipliers than the United States, although significant variance exists across countries (Sheremirov and Spirovska 2022).

From Geopolitical Developments to Corporate Earnings

Exhibit 7 provides a simple case study in how to incorporate higher defence spending into earnings growth expectations. It starts with the empirically supported assumption that in the long run, corporate revenues grow in line with nominal GDP. The case study then uses the trend growth estimates for real GDP in the next five years, as provided by the Organisation for

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Exhibit 7. Building Block Estimates for Earnings per Share Growth, Next Five Years

	S&P 500	MSCI Europe
Real GDP growth	2.1%	1.6%
Defence spending		0.3%
German infrastructure		0.3%
Inflation	3.0%	3.0%
Margin change	-1.0%	0.0%
Share buybacks	1.8%	1.8%
Total	5.9%	7.0%
Average over the past 10 years	8.5%	3.8%

Sources: Data from OECD, Bloomberg, and Panmure Liberum.

³"Prime Minister Sets Out Biggest Sustained Increase in Defence Spending Since the Cold War, Protecting British People in New Era for National Security." UK Ministry of Defence and Prime Minister's Office, 25 February 2025, <https://www.gov.uk/government/news/prime-minister-sets-out-biggest-sustained-increase-in-defence-spending-since-the-cold-war-protecting-british-people-in-new-era-for-national-security>.

Economic Co-operation and Development (OECD). For the United States, the OECD estimates trend growth of 2.1% annually, compared with 1.6% for the EU.

Defence spending of 4.3% of EU GDP in the next five years translates into an average fiscal stimulus of 0.8% of EU GDP annually, which (assuming a fiscal multiplier of 0.5) boosts EU real GDP growth by 0.3% to 0.4% annually. In Germany, another fiscal stimulus from the new EUR500 billion infrastructure fund (12% of German GDP over 12 years) is estimated to create a 0.3% annual boost to EU GDP growth.

The United States has no such fiscal stimulus, which means that although the estimated real annual GDP growth for the United States remains at 2.1%, it increases to 2.2% for the EU thanks to the combination of increased defence spending and German infrastructure spending. If we add 3% inflation for the United States and the EU for simplicity (readers can make their own adjustments), expected corporate revenue growth reaches 5.2% per year.

To arrive at net profits, we further assume that net profit margins in each region revert to the average since the financial crisis, which implies significantly higher profit margins in the United States than in Europe. It also means a 1% annual drag on net profit growth in the United States as margins decline to long-term averages, compared with stable profits in the EU. Finally, to arrive at earnings per share (EPS) growth, we assume that the rate of share buybacks remains constant in both regions at the current level.

The result is an estimated five-year annual EPS growth rate for US stocks of 5.9%, compared with 7.0% in Europe. In other words, the increase in defence spending combined with Germany's infrastructure spending boom leads to higher forecast EPS growth in Europe than in the United States, in sharp contrast to the experience of the past 10 years. The implications for broader capital market assumptions and portfolio allocations for investors are obvious.

Although readers can, and inevitably will, quibble with the assumptions made in this brief, this case study provides a hands-on guide about how to think about geopolitical events and their impact on financial markets as well as how to incorporate geopolitical developments into earnings forecasts or return expectations.

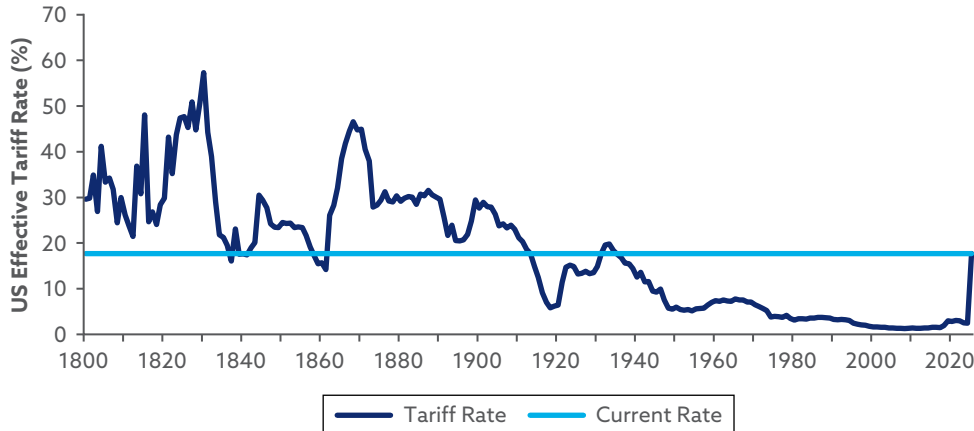
The Defining Geopolitical Rivalry of Our Time

At the time of writing in Summer 2025, the tariffs imposed by the United States on most of its trade partners, and in particular China, are still in flux. We thus rely on the latest analysis of US tariffs by the Yale Budget Lab as a reference point to assess the potential impact on the economy (Yale Budget Lab 2025).

In 2025, the United States proposed high tariffs on practically every country in the world under the International Emergency Economic Powers Act of 1977. Additionally, under Section 232 of the Trade Expansion Act, it launched tariff probes and tariffs on copper, steel, aluminium, autos, and auto parts, as well as a range of other goods.

The Yale Budget Lab estimates that these tariffs will increase the average import tariff rate in the United States to 20.6% from 2.4% at the end of 2024. **Exhibit 8** shows that these changes would take US import tariffs to the highest level since 1911 and form the largest annual increase in tariff rates ever recorded.

Exhibit 8. Effective Tariff Rate of US Imports



Source: Data from Yale Budget Lab (2025).

Because imports have become a much larger share of US GDP than a century ago (the last time tariffs were this high; the imports-to-GDP ratio in 2024 was 14%), the shock to US GDP is expected to be material. This shock will be delivered through two potential channels. First, US businesses face higher import prices for affected goods, which creates higher costs. If these costs are passed on to end customers, inflation will increase, reducing end demand. Second, if the businesses cannot pass on higher import prices, their profit margins will decline and corporate profits will drop. In both instances, real GDP drops.

Indeed, US exports are likely to decline as a result of import tariffs, as Handley, Kamal, and Monarch (2025) pointed out. They estimated that the tariffs in 2018 and 2019 increased costs per worker by USD900 overall and by USD1,800 per worker in the manufacturing sector, because exported goods contained imported components affected by the tariffs. The authors estimated that the resulting decline in US exports was equivalent to an *ad valorem* (proportional to the underlying asset's value) tariff of 2% to 4%.

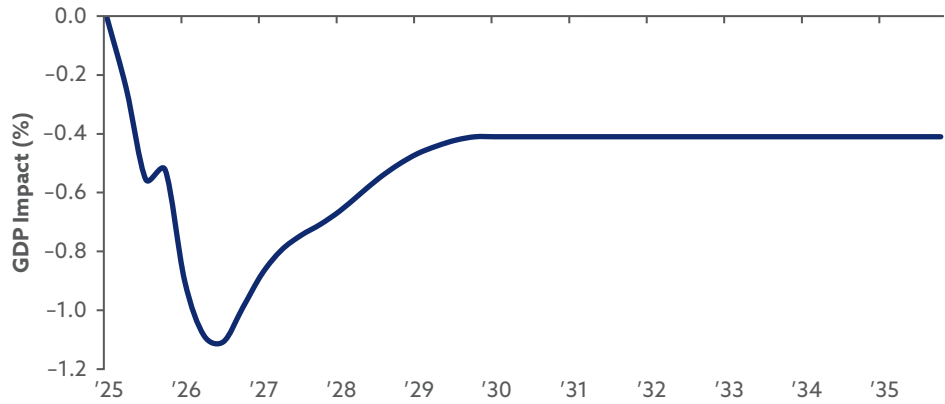
The Yale Budget Lab estimates that some 90% of import price increases will be passed on to end customers, destroying an estimated 641,000 jobs within 12 months and reducing real GDP by 1.1%. **Exhibit 9** details the effects. The long-run impact is forecast to be a permanent loss in output of 0.45% and a permanent increase in consumer prices of 2.1%.

The goal of these tariff measures is to increase employment in the US manufacturing sector, and to some extent, this goal will be achieved. Indeed, tariffs always create winners and losers, as most trade policies do. The Yale Budget Lab forecasts that the tariffs introduced in 2025 will increase real gross value added in durables manufacturing by 4.8% and nondurables manufacturing by 1.4%.

Advanced manufacturing output, however, which relies heavily on imported semifinished goods, such as semiconductors, is forecast to shrink by 2.9% in response to these tariffs. The construction sector, a heavy user of imported steel, is expected to shrink by 4.1%. **Exhibit 10** illustrates the long-run effects for a variety of industries.

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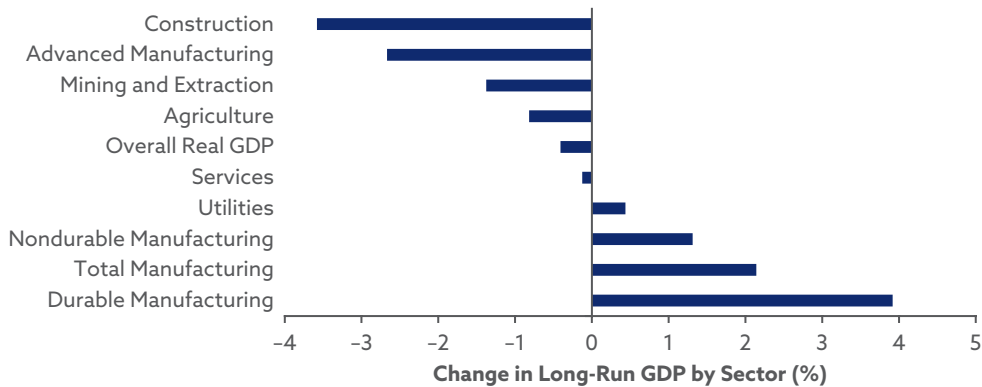
Exhibit 9. Estimated Impact on US GDP



Source: Data from Yale Budget Lab (2025).

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Exhibit 10. Estimated Long-Run Impact on US Sector GDP

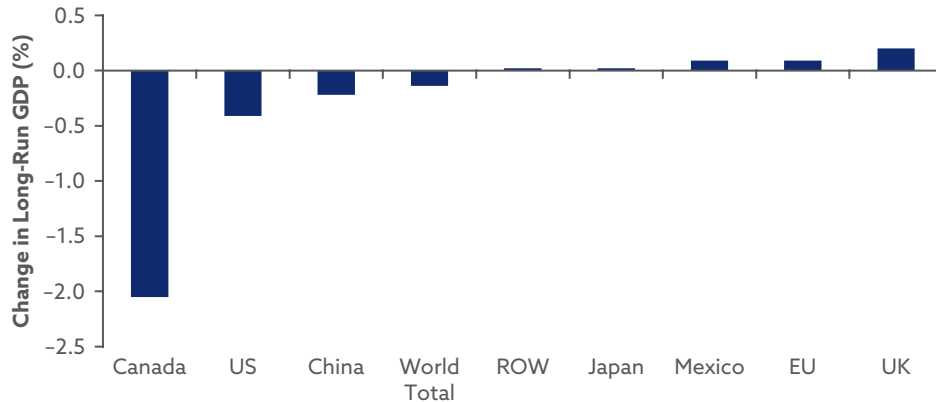


Source: Data from Yale Budget Lab (2025).

The loss of exports will hit the economies of the trade partners of the United States as well. Canada's GDP is expected to shrink by 2.0% in equilibrium, while China's economy is expected to shrink by 0.2%, about half the reduction in US output. **Exhibit 11** details these effects for several countries and regions. Relative winners in the long run could be the EU and the United Kingdom, which are subject to lower tariffs than China and can be tapped into to deliver substitutes for Chinese imports, particularly in advanced manufacturing.

Similarly, imports from Mexico may be boosted as other countries divert supply chains through Mexico to the United States. Utar, Zurita, and Ruiz (2023) document that Chinese companies already reordered global supply chains along these lines in reaction to the 2018–2019 tariffs. Mexican exports to the United States increased, as did imports from Asia to Mexico.

Exhibit 11. Estimated Long-Run Impact on GDP by Market



Note: ROW = rest of the world.

Source: Data from Yale Budget Lab (2025).

The Comeback of Industrial Policy

Although the long-term impact of the tariffs introduced in 2025 is unknown, and the wisdom of a broad application of protectionist tariffs is debatable, it points to a broader shift in economic policy in the 2020s. The move is toward old-fashioned industrial policy to compete internationally.

For many readers, the term *industrial policy* conjures up images of governments intervening in markets to pick winners and losers in an industry. The most prominent example may be Japan's Ministry of International Trade and Industry (MITI), which existed from 1949 to 2001. After World War II, with the blessing of US officials, Japan's government created MITI to foster the growth of key industries.

For example, in the 1950s, MITI provided loans to Japanese steel companies to acquire licences for basic oxygen converters, enabling the production of steel at much lower costs. In return for this financial support, domestic steelmakers had to share their knowhow with domestic competitors to allow for widespread adoption of the technology. Similarly, MITI ensured that throughout the 1950s and 1960s Japanese exporters benefitted from a heavily regulated and uncompetitive home market, which acted as a cash cow to finance export growth. This approach helped Japan rebuild its economy after the war and become a leading global exporter.

The heavy-handed reliance on subsidies and tariffs in the past explains why industrial policy has a bad reputation: It supports government intervention in free markets. Some good reasons exist, however, to justify why industrial policies and government intervention in free markets may be needed:

- **Externalities.** Many manufacturing processes create negative externalities in the form of pollution but also positive externalities from research and development activities. In these cases, government regulation can provide subsidies to foster research and development (R&D) or reduce the costs of environmental damage to the public. Finally, government

intervention may be needed to protect national security interests and protect access to critical minerals or energy commodities.

- *Coordination failures.* In many instances, producing at a profit may be possible only if other businesses produce certain goods in sufficient quantity. Thus, companies in different industries would need to actively collude to create a profitable market. Doing so is often not possible for legal or business reasons. In these instances, the government can solve coordination problems through industrial policies.
- *Provision of public goods.* Many business activities rely on the provision of public goods as inputs, such as a suitable infrastructure, a skilled labour force, or even such basics as law and order. How the government uses limited finances for the construction of infrastructure projects, however, is inherently unequal because money that flows into one region or project is unavailable for other regions or projects. This creates an inequality driven by political preferences rather than market forces.

Hence, industrial policy consists of much more than tariffs in international trade or subsidies to support unprofitable industries. We adopt the definition of Juhász, Lane, and Rodrik (2023, p. 216): “Industrial policies are those government policies that explicitly target the transformation of the structure of economic activity in pursuit of some public goal.”

The most commonly adopted critique of industrial policies is that governments typically lack the necessary information to remedy market failures and are unable to direct the economy to the degree needed to address such failures. Thus, industrial policies lead to misallocation of capital and inefficiencies. Even if governments had all the information needed to implement beneficial industrial policies, that information would be captured by vested interests and lobby groups, leading to excess profits for some companies and low profits or losses for others.

The consensus today is that industrial policies are complex and can be either beneficial or detrimental for consumers and the economy. Although simple industrial policies such as tariffs or direct subsidies tend to be detrimental, the toolbox for industrial policies has become more sophisticated and the results, in general, more beneficial over time. This realisation of being able to adopt policies with a varying set of measures, as well as the rising geopolitical tensions in recent years, has created a renaissance in the use of industrial policies.

Historically, industrial policies were not always easy to detect. After all, governments do not like the term “industrial policies” given its negative connotations and potential conflicts with World Trade Organization rules. Thanks to modern natural language analysis tools, we can now “read” millions of laws and regulations globally to identify if a policy is intended to transform an economy in pursuit of a public goal and thus meet our definition of industrial policy.

A recent study of the database Global Trade Alert showed that the number of industrial policy interventions globally has increased from 56 in 2012 to 1,568 in 2022 (Juhász et al., 2023).

Exhibit 12 shows that, in particular, with the 2018 start of the US-China trade war, the number of policy interventions rose dramatically.

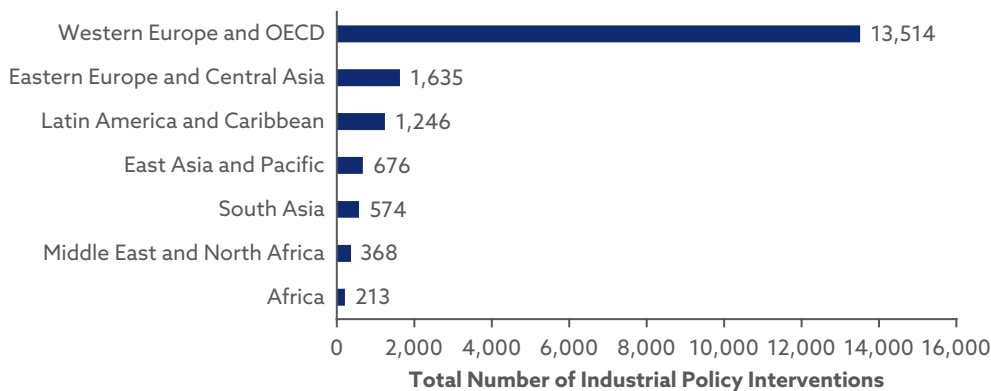
A common misperception about industrial policies is that they are used mainly by middle- and low-income countries trying to protect their domestic markets to support development. In fact, as illustrated in **Exhibit 13**, three out of four industrial policy interventions are implemented by industrial countries in Western Europe and other longstanding OECD member countries, such as the United States and Canada. The primary motivations for implementing industrial policies

Exhibit 12. Number of Industrial Policy Measures Worldwide



Source: Juhász et al. (2023, p. 222).

Exhibit 13. Number of Industrial Policy Measures Worldwide



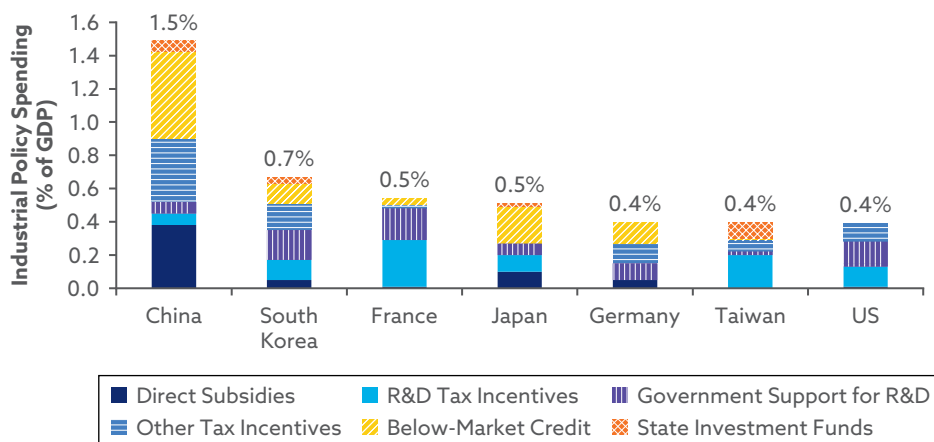
Source: Juhász et al. (2023, p. 222).

are either to protect domestic markets in high-income countries from cheaper imports or to make domestic exports competitive in the global market.

Although the sheer number of industrial policy measures in developed markets is large, China probably spends the most relative to GDP on industrial policy measures to support its exporters and local manufacturing base. In this respect, China is simply following the economic development model of Japan, South Korea, and others before it—but at a much larger scale.

Exhibit 14 shows the estimates of government spending on industrial policies as a share of GDP from a study by the Center for Strategic and International Studies (Kennedy, DiPippo, and Mazzocco 2022). The authors concluded that China spends an estimated 1.5% of its GDP on industrial policies. This figure is more than twice as much as South Korea and three times as much as France, Japan, or the United States.

Exhibit 14. China's Use of Industrial Policy Is Much More Intensive Than That of Other Countries



Source: Kennedy et al. (2022, p. 30).

China also uses a different policy mix for its industrial policy than most high-income countries. In high-income countries, the dominant form of industrial policy spending is typically tax incentives and grants for R&D. The Chinese government, meanwhile, relies far more on direct subsidies, below-market credit, and other tax incentives. In particular, access to below-market-rate loans through state-owned banks plays a vital role in China (Kennedy et al., 2022).

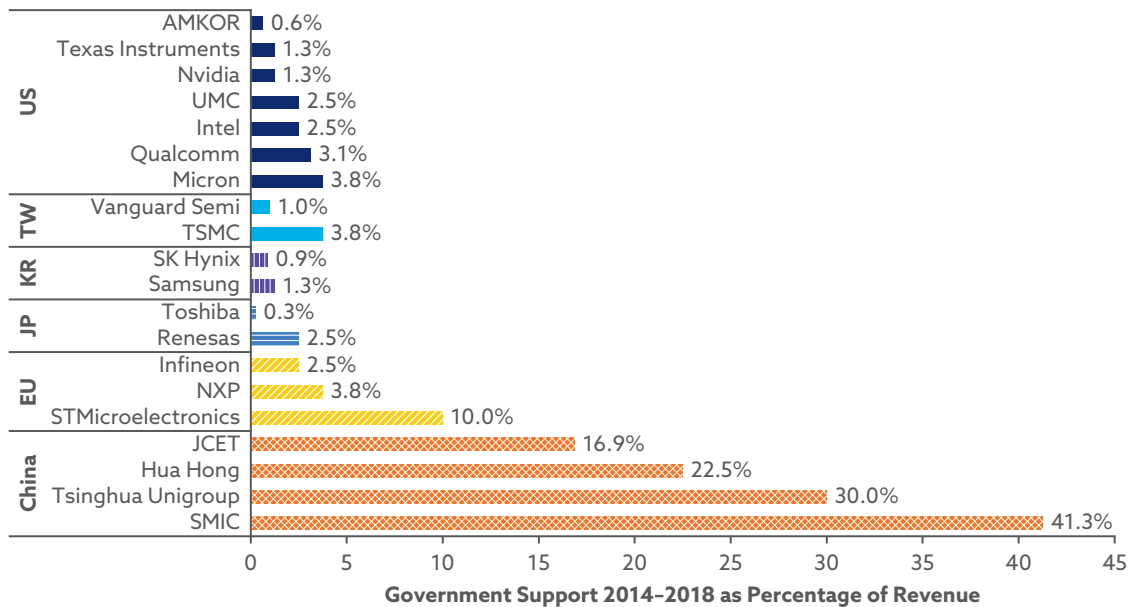
This approach resembles the role MITI played in Japan in the 1950s in promoting local industry; obviously, however, China is no longer promoting the steel or machinery industries. Instead, it has more recently focused on crucial technologies for the twenty-first century, such as semiconductors (Kennedy et al., 2022).

A 2019 study by the OECD examined state support for semiconductor companies between 2014 and 2018. **Exhibit 15** details some of the results. Although Western semiconductor companies typically received state aid of 3% of revenues or less (typically in the form of R&D support), China's semiconductor manufacturers received state aid in the range of 16.9% to 41.3% of revenues.

China's partially state-owned Semiconductor Manufacturing International Corporation (SMIC) has benefitted strongly from government support. Access to cheap capital through below-market-rate loans in tandem with tax breaks helped SMIC to become the fifth-largest chipmaker worldwide, with a global market share of 5% and the ability to produce advanced chips with transistors as small as 7 nanometres.

Given the increasing use of industrial policies in North America, Europe, and other regions, investors must be prepared to consider industry-wide trends and government interventions as part of their investment process. The importance of such "outside intervention" is likely to increase in the future.

Exhibit 15. Chinese Government Support for the Semiconductor Industry



Source: Data from OECD (2019).

Fragmentation of Global Trade and Supply Chains

The economic rivalry among the United States, China, and other economies, along with the increased use of industrial policies (including tariffs) to reduce geopolitical dependencies of global supply chains, will also shape and reorder worldwide trade and supply chains. The supply chain disruptions in the aftermath of the COVID-19 pandemic showed that in the short run, disruptions to global supplies can trigger a steep increase in inflation and even cause recessions.

Some investors argue, however, that in the long run, the fragmentation of international trade will lead to lower prices. The argument is that if the United States and other nations build their own manufacturing base and supplies of critical minerals, global demand for these goods will not rise. Instead, an increase in supply will be met with virtually unchanged demand, which should cause prices to drop.

This line of thinking is correct in the idealised world of economics textbooks. Such textbook examples, however, assume a frictionless global market. The whole point of industrial policy is to introduce frictions. If the United States were to impose, say, a 100% tariff on Chinese batteries, exports of Chinese batteries to the United States would cease because they would no longer be competitive. The result in the United States would be either insufficient supply from domestic manufacturers (in which case battery prices would rise) or a sufficient supply (in which case prices remain stable). China, meanwhile, would face an oversupply of batteries, and prices would drop.

The result is that in export hubs that currently produce goods for the global market, prices will drop in response to overcapacity. In the rest of the world, however, which imports goods from global manufacturing hubs, prices will rise and inflation will persist until locally produced supply comes to market.

Furthermore, because countries such as the United States will produce goods more expensively than China or other countries, the price increase in countries that are building local manufacturing supply chains will rise more than it falls in countries with overcapacity. The result is that a fragmentation of trade increases the average global price of goods and reduces global output.

Attinasi, Boeckelmann, and Meunier (2025) have quantified the impact of global trade fragmentation on welfare, prices, and international trade volume in three scenarios:

- A central (base case) scenario of strategic decoupling of supply chains in critical sectors (e.g., semiconductors, clean tech) between an Eastern bloc led by China and its geopolitical allies and a Western bloc led by the United States and its geopolitical allies. In this scenario, trade links between the East and West in nonstrategic sectors (e.g., consumer goods) remain unchanged.
- A strategic decoupling of supply chains in critical sectors between East and West, but also a fragmentation of trade along existing trade blocks (e.g., EU, United States–Mexico–Canada Agreement). This case simulates a risk scenario in which competition among different Western trade blocks intensifies and regional trade barriers increase. Again, trade in noncritical sectors remains unchanged in this scenario.
- An all-out decoupling of all supply chains between East and West across all sectors in the economy. This scenario comes closest to the trade war underway in 2025 between the United States and the rest of the world.

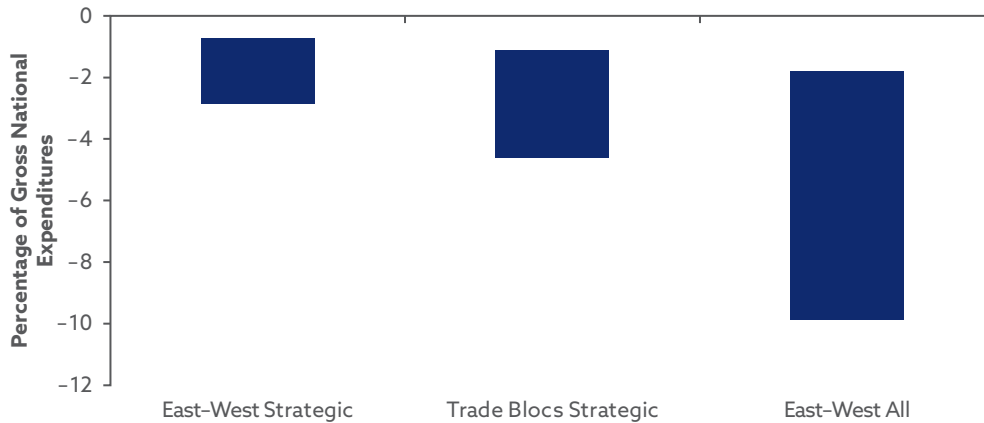
Exhibit 16 shows the estimated impact on global national expenditures as a measure of global welfare under different assumptions for demand elasticity.⁴ All results are cumulative in the medium term, which in practice is likely to be in the order of 5 to 10 years. In the case of an East–West decoupling on strategic goods, the loss of global welfare ranges from 0.7% to 2.8%, with larger losses for more inelastic demand for critical goods. In the extreme case of a complete decoupling of East and West, the global loss of welfare is estimated to be between 1.8% for elastic demand and up to 9.9% for inelastic demand.

Exhibit 17 shows the expected increase in global price levels. A decoupling between East and West on supply chains for strategic goods may increase price levels by 0.7% to 2.7% in the medium term, but a complete decoupling may increase prices by 1.8% to 8.4%. For simplicity, assume this price increase is evenly spread across 10 years, which implies an increase in global inflation rates of 0.2% to 0.8% per year for the coming decade.

Last, **Exhibit 18** shows that global trade would suffer significantly in the event of such a decoupling. International trade volume (measured by USD traded) is projected to drop between 5.7% and 9.2% in the case of East–West decoupling on strategic goods only. In a scenario of complete decoupling between East and West on all goods, global trade volumes may decline by 19.2% to 29.8%.

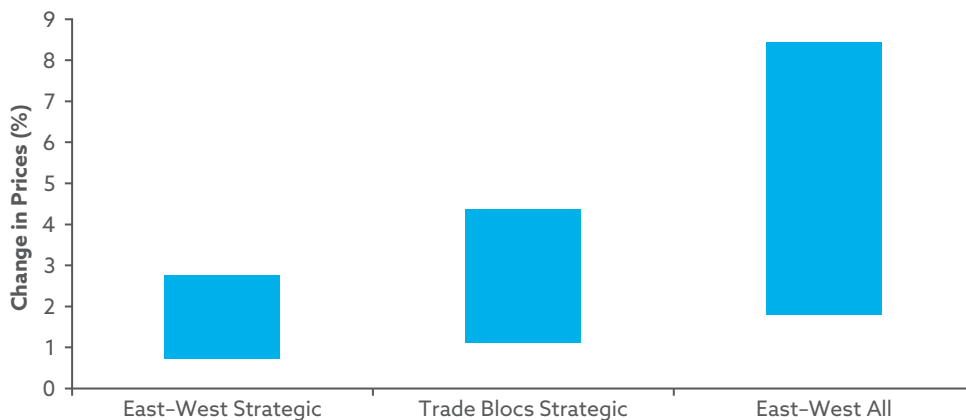
⁴Gross national expenditure is defined as the sum of all household consumption, government consumption and real investments by businesses. As such, it is the sum total of the “utility” accrued by the different sectors of an economy.

Exhibit 16. Impact of Supply Chain Decoupling on Global Welfare



Source: Adapted from Attinasi et al. (2025, p. 9).

Exhibit 17. Impact of Supply Chain Decoupling on Prices



Source: Adapted from Attinasi et al. (2025, p. 9).

These results have shown global averages, but as explained in the thought experiment above, the impact on global importers, global manufacturing, and export hubs are very different. China has become the world's largest exporter, but thanks to its evolution from a cheap labour workshop to a high-tech manufacturer, it also has become the world's second-largest importer of goods. Decoupling global supply chains from China will thus not be easy and will affect other countries in different ways.

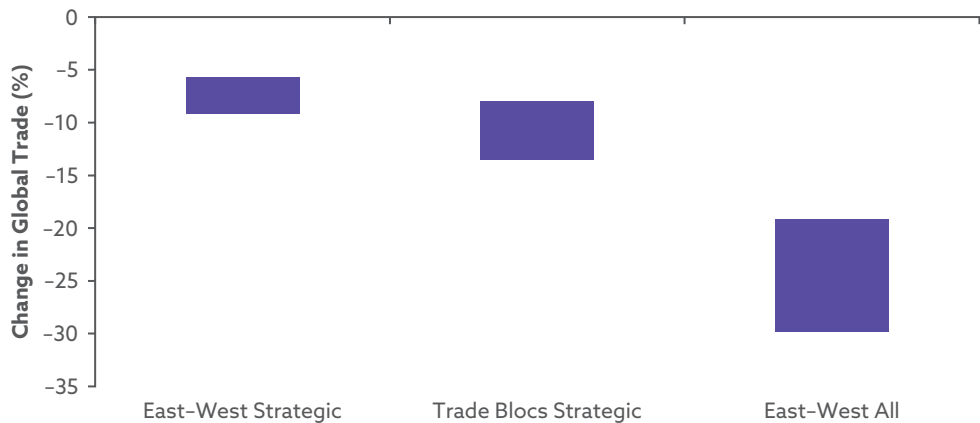
It is virtually impossible to assess which country will be affected in what way, given the myriad of products moving around the globe and the many scenarios for global trade decoupling. As a general rule, however, countries with a higher import dependence on China, such as Mexico, South Africa, or Germany, will see larger price increases if they choose to decouple from China.

In contrast, companies with a higher export dependency on China, such as Australia, Brazil, or Japan, will likely experience a larger drop in welfare (and economic output) if their businesses can no longer export to China or face higher trade frictions.

In that respect, even though the trade flows between the United States and China are among the world's largest, the United States will likely feel a smaller impact from its decoupling from China than other countries would in the same circumstances, simply because its share of GDP from trade with China is smaller than for most middle-and high-income countries. **Exhibit 19** illustrates these relationships for a variety of nations.

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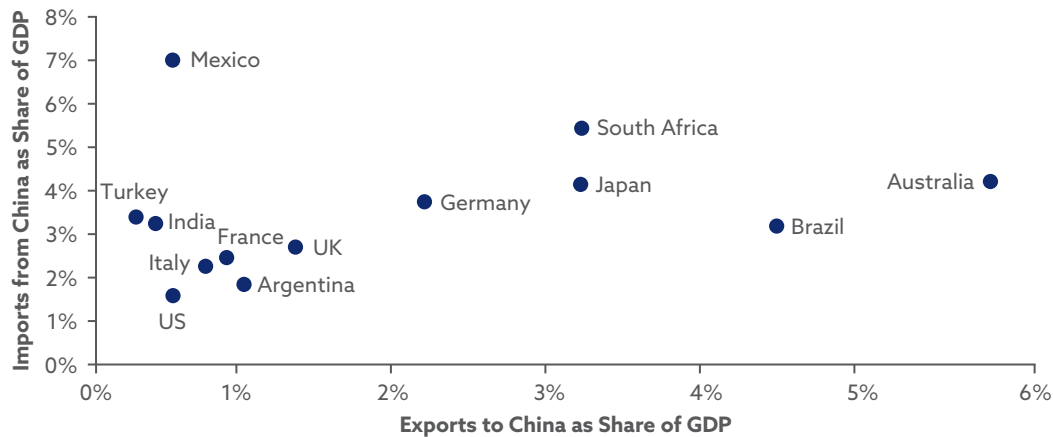
Exhibit 18. Impact of Supply Chain Decoupling on Global Trade



Source: Adapted from Attinasi et al. (2025, p. 9).

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Exhibit 19. Trade Dependence on China in 2024 by Market



Sources: Data from UN Comtrade and International Monetary Fund databases.

Diverging Paths on ESG Investing and Renewable Energy

During the past five years, two pre-existing trends have continued to shape public discourse and financial markets: (1) the impact of climate change on the economy and business and (2) the energy transition toward electricity generation from renewables and other low-carbon energy sources. The most notable development from the recent past, however, is the stark divergence in the political discourse and regulation around climate change risks and the energy transition between the United States and much of the rest of the world.

US Perception and Politics of Climate Change

The two major political parties in the United States differ significantly with respect to climate change. The Biden administration boosted investment in renewable energy and climate change adaptation, whereas the current Trump administration has reversed or paused practically all ESG-related regulation in the United States. I focus on the driving forces behind the divergence in acceptance of climate change mitigation and energy transition technologies between the United States on one side and Europe and Asia on the other, where these issues remain popular.

Action and investment implications around climate change risks and the energy transition are driven by both a public sense of urgency and political realities on the ground. When it comes to public attitudes, the Peoples' Climate Vote 2024 conducted by the United Nations Development Programme provides the largest independent and representative survey of 87% of the global population.⁵ It surveyed more than 73,000 people in 77 countries about their attitudes toward climate change.

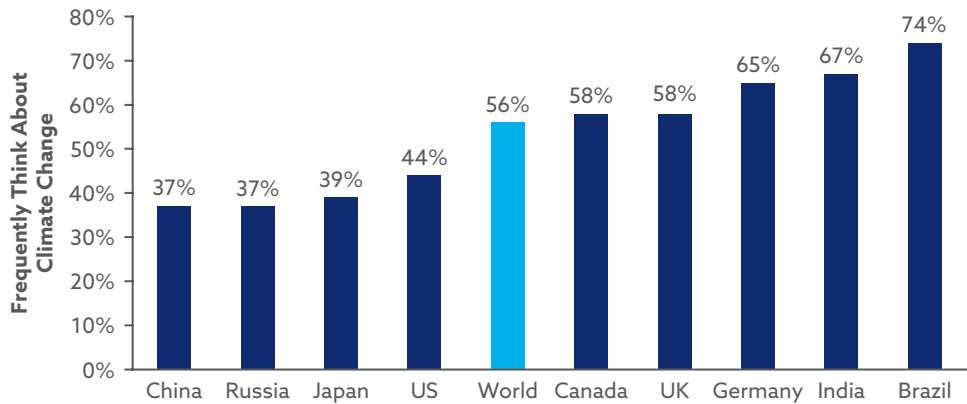
Exhibit 20 shows a sample from nine countries and the global average in people's responses on whether they think about climate change frequently (daily or weekly). We note a significant gap in public concern about climate change between the United States and other Western industrial countries, such as neighbouring Canada or western Europe. People in the United States worry less about climate change than their peers in these countries or the world overall. Concerns about climate change among the US population are more in line with views held in Japan, Russia, or China than in other Western industrial countries.

The lower sense of urgency for climate change mitigation and the energy transition in the United States has significant real-world consequences for investors. Bloomberg New Energy Finance (BNEF) projects future investment and capacity additions in the power sector under different scenarios. Here, I rely only on BNEF's Emissions Transition Scenario, which is based solely on publicly committed actions by governments, rather than on the more aggressive actions necessary to achieve the Paris Agreement's climate goals, for instance.

Exhibit 21 shows the projected capacity additions each year until 2040 in the United States, Europe (including central and eastern Europe), and China for wind energy. Although the United States has less wind energy capacity installed than Europe or China, it is expected to add just 12.7 GW of additional capacity each year. This figure is about one-third of the 36.4 GW annual forecast for Europe and one-tenth of the 129.8 GW annual forecast in China.

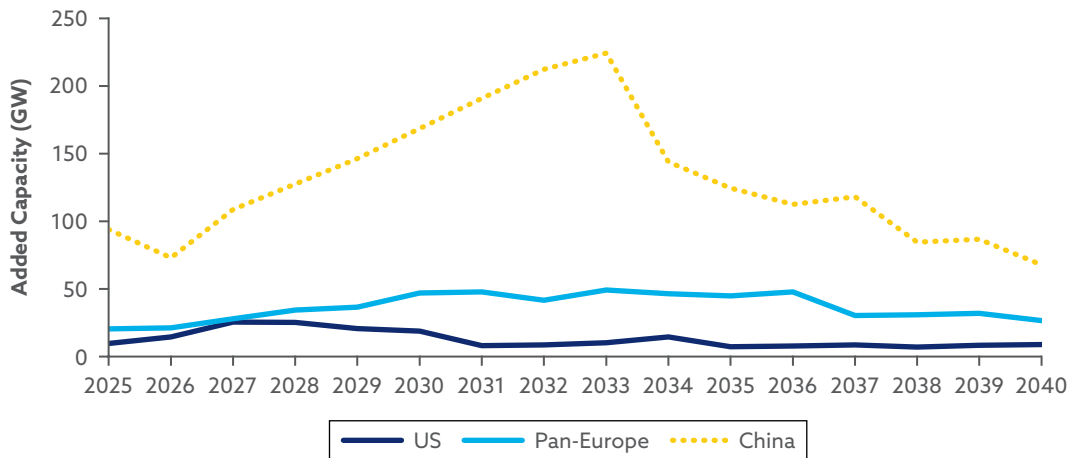
⁵For further details on this survey, see <https://www.undp.org/publications/peoples-climate-vote-2024>.

Exhibit 20. Climate Concerns Around the World by Market



Source: Data from United Nations Development Programme (2024).

Exhibit 21. Wind Energy Capacity Additions by Market



Source: Data from BNEF (2025).

The picture is similar for the forecast buildout of solar energy, for which the United States is expected to add 38 GW of additional capacity each year until 2040, compared with 59.1 GW per year for Europe. Even in the case of other low-carbon energy sources, such as nuclear and hydro, the United States lags both Europe and China.

Diverging Economics of Renewable Energy

It would be too simple to blame politics alone for the divergence between the United States on the one hand and Europe and Asia on the other. Economic differences play a role as well. In China, for example, the buildout of renewable and nuclear energy is a matter of state policy,

enforced through government-owned entities for the benefit of the people and the nation. In most industrial nations and many emerging economies, however, capacity additions to the power grid are a market process guided by the state through industrial policies and regulation. If it is cheaper to build a new gas power plant than a wind farm, the gas power plant will be built and the wind farm will not. Hence, the decision whether to finance renewable energy depends on the levelized cost of energy (LCOE), the life-cycle cost of financing, building, operating, and decommissioning a plant. The LCOE must be lower than the expected price per unit of electricity generated and lower than competing sources of electricity that could be built instead.

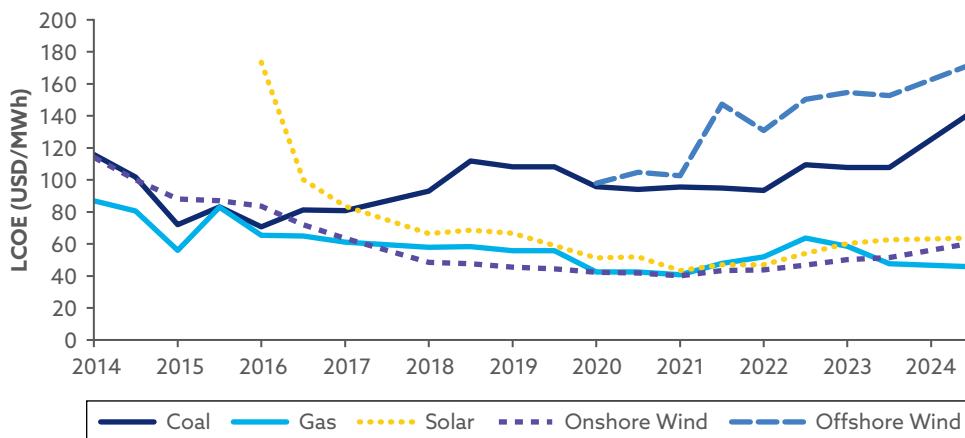
Because wind and solar are relatively new technologies, their LCOE even ten years ago was very high. It has declined dramatically, however, as economies of scale have been achieved and component manufacturing productivity has increased. In 2016, the LCOE of a new gas power plant was USD65/MWh. Building a new onshore wind farm was 10% more expensive at USD72/MWh, and a utility-scale photovoltaic solar farm was prohibitively expensive at USD100/MWh.

Eight years later, in 2024, the LCOE of a new gas power plant had declined 30% to USD46/MWh, thanks in large part to abundant natural gas production in the United States. The cost of solar power declined 37% during the same period and is now USD64/MWh, still significantly more expensive than building a new gas power plant. Similarly, onshore wind is now 32% more expensive to build than gas. **Exhibit 22** illustrates these energy cost comparisons over time.

Given these economic realities, it makes little sense to build new solar or wind farms in the United States. Natural gas is simply too cheap by comparison.

In Europe and China, however, the economic realities are very different: Onshore wind power has generally become the cheapest energy source. Building a new gas power plant in these regions is typically 30% more expensive than building and running an equivalent wind or solar farm. As a result, wind and solar are growing, while gas power is being left behind.

Exhibit 22. Gas Remains the Cheapest Energy Source in the United States



Source: Data from BNEF (2025).

Geopolitical Consequences of the Energy Transition

Capital is famously value neutral and often short-sighted. If the economics of a solar power plant make sense, investors will finance it and build it, independent of any externalities. In 2021 and 2022, in academic parlance, the world learned once again about the risks of short-term optimisation in the presence of externalities.

For decades, business have increasingly outsourced their supply chain to the cheapest provider globally. Doing so made these businesses more profitable and increased shareholder value. The price for this optimisation and increased shareholder value was reduced resilience against external shocks. When the shock finally happened in the form of the COVID-19 pandemic and the subsequent supply chain disruptions, the world found out what happens when just-in-time delivery is a day late—or never arrives.

In the case of the energy transition and Europe's increased investment in wind and solar power, one of the greatest risks lies with China's control of rare earth metals, alongside its dominance in the manufacturing of key parts of solar panels, windmills, and batteries.

Clearly, the increasing investments in renewable energy increase the dependence of European and Asian countries on Chinese suppliers at a time when political tensions with China are rising. To secure long-term access to critical minerals and goods, European businesses need to diversify their suppliers and try to establish alternative sources. The EU has launched political initiatives, such as the Critical Minerals Act, to provide subsidies for companies that establish a footprint in the EU and mine or refine critical minerals. These initiatives, however, suffer from limited funding and are thus not very effective—far less than the measures taken by the US government.

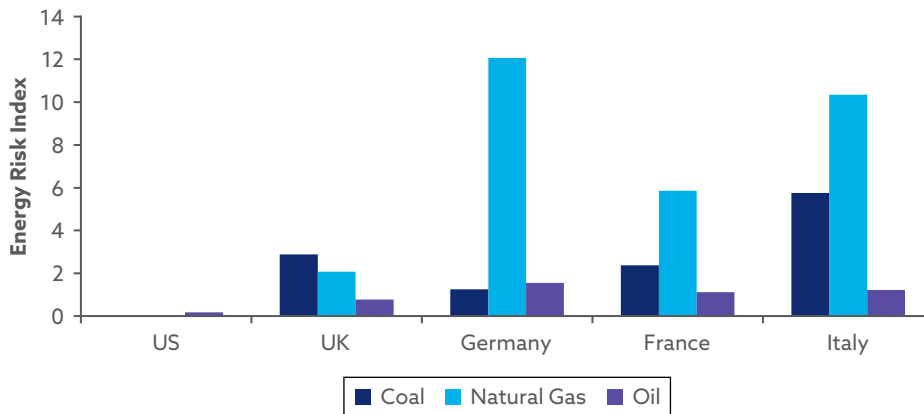
One consideration about the geopolitical risks for countries in Europe and Asia from the energy transition is the question, "Compared with what?" Increasing investments in renewables leads to a higher dependency on Chinese supplies, but these countries would not be geopolitically independent if they continued to rely on fossil fuels, either. The United States is one of the few nations with a sufficient domestic supply of oil and natural gas. Norway is the only country in Europe with that privilege.

A study from the International Monetary Fund (IMF) analysed geopolitical supply chain dependencies for 11 industrial countries for crude oil, natural gas, and coal (Kim, Jaumotte, Panton, and Schwerhoff 2025). The researchers used the IMF's International Country Risk Guides political risk rating to assess the average geopolitical risk for these countries if they continue to rely on fossil fuel imports.

As **Exhibit 23** illustrates, the United States has the exorbitant privilege of being virtually energy independent in the fossil fuel space. The United Kingdom, meanwhile, can rely at least somewhat on domestic North Sea oil and gas supplies, and it imports additional fossil fuels, mostly from low-risk countries, such as Norway. Other than Norway and the United Kingdom, however, no other European country is in that privileged position. Instead, they need to import fossil fuels to meet demand, which increases their dependence on geopolitical adversaries, such as Russia and potentially unstable countries in the Middle East and Africa.

In short, if European countries and resource-poor countries on other continents want to reduce their geopolitical dependencies, they need to invest heavily in renewables. Wind and solar power allow these countries to produce energy domestically; increased investment in nuclear

Exhibit 23. In Europe, Geopolitical and Supply Chain Risks Abound with Fossil Fuels



Source: Kim et al. (2025, p. 213).

power, hydropower, and other baseload low-carbon energy sources helps reduce geopolitical risks as well.

An Emerging Geopolitical Issue: Rising Default Risks in the United States

Investor complaints about the US budget deficits and their ever-growing debt pile have been around since the days of US President Ronald Reagan, if not longer. Although the United States has been on an unsustainable debt path for the better part of four decades, nothing has shaken the trust in US Treasuries and the US dollar. In 2024 and 2025, however, we have seen significant cracks in this trust, and worries about default risks in Treasuries have become a mainstay of investor discourse. Plus, academic evidence is increasing of a slowly rising risk premium on Treasuries that may become a problem in the years ahead. Because US Treasuries are still the global reference for the assets closest to being risk-free, changing perceptions for Treasuries are likely to influence government bonds and other assets around the globe.

Yes, US Treasuries Are Risky

At the annual Economic Policy Symposium of the Federal Reserve in Jackson Hole, Wyoming, in August 2024, Roberto Gomez Cram, Howard Kung, and Hanno Lustig presented a study that went largely unnoticed by the public but caused quite a stir among the audience of central bankers and academic economists (Cram, Kung, and Lustig 2024). Based on high-frequency data during the COVID-19 pandemic, they directly showed for the first time ever that US Treasury yields react to bad news about future US deficits. Whenever the US government engaged in large-scale spending that created unfunded deficits, real yields would rise, reflecting an increasing risk premium. The presentation drew pushback because it undermined the commonly held belief among US investors that US Treasuries are ultimately risk-free.

This assessment of Treasuries as risk-free assets has never had much purchase outside the United States, because all government bonds carry the risk of government default, no matter how small that risk. Shortly thereafter, Ademmer and Rush (2024) published an extensive analysis of the different drivers of the natural long-term rate of interest in government bonds (essentially the fair real yield of 10-year government bonds).

Exhibit 24 shows the change in this natural rate since 2010. US Treasuries show a rising natural rate since about 2016, fuelled first by the 2017 Tax Cuts and Jobs Act and then the deficit spending during the pandemic and the Inflation Reduction Act. This trend stands in stark contrast to the declining natural rate in Germany and the United Kingdom, for example, which bottomed out only in the wake of the pandemic rescue packages.

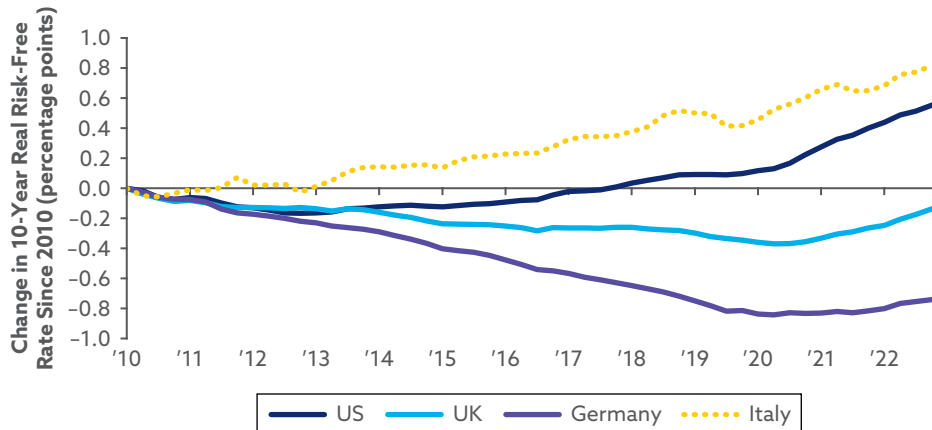
A more detailed analysis of the drivers of these moves in natural rates shows that in the United States in particular, major contributors were rising US deficits and a global oversupply of safe assets that overwhelmed demand as governments in most industrial countries rescued their economies through emergency deficit spending.

Indeed, in the case of the United States, we can plot the rolling 10-year moving average in the budget deficit and compare it with the change in the natural risk-free rate calculated by Ademmer and Rush (2024). **Exhibit 25** shows that with some lag, the increase in Treasury real yields follows persistent increases in deficit spending since the 1980s. If this relationship continues to hold, it does not bode well for the risk premium priced in Treasuries, because the 2025 US budget puts the US deficit on a rising trajectory, according to forecasts by the Congressional Budget Office (CBO).

In an international context, US budget deficits are exceptionally large and will likely remain so in the next couple of years. **Exhibit 26** compares the Bloomberg consensus forecasts for budget deficits in the United States in the next couple of years with those in the United Kingdom, the Eurozone, and Japan. Not only is the United States running the largest budget deficits ever

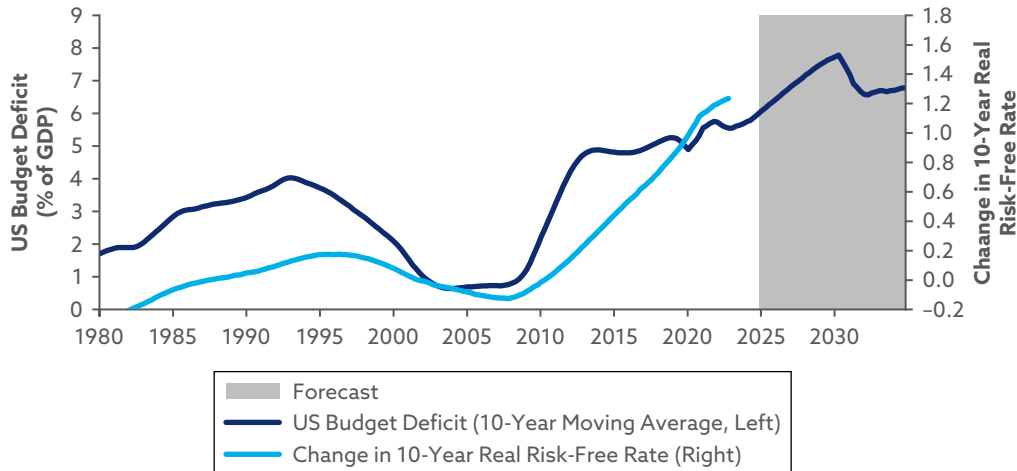
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Exhibit 24. The Risk Premium on US Treasuries Has Increased Significantly Since 2010



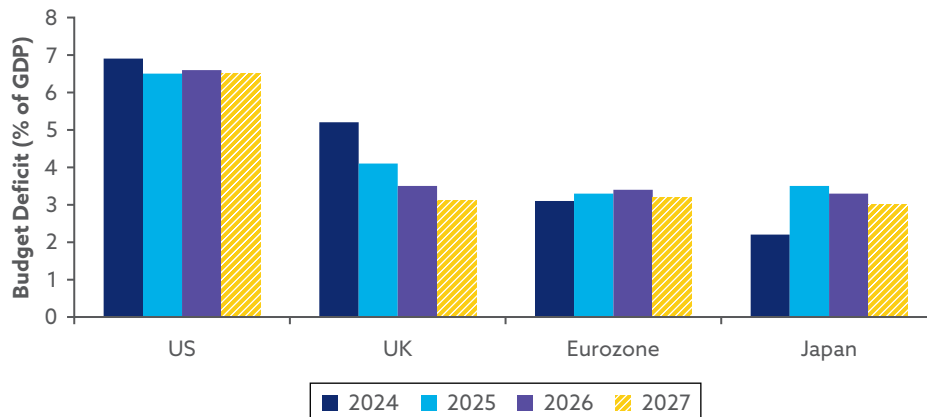
Source: Ademmer and Rush (2024, p. 7).

Exhibit 25. US Deficits Are a Major Driver of Treasury Risk Premium



Sources: Data from Ademmer and Rush (2024), CBO, Bloomberg, and Panmure Liberum.

Exhibit 26. US Deficits Are Exceptional in the Industrial World



Sources: Data from Bloomberg and Panmure Liberum.

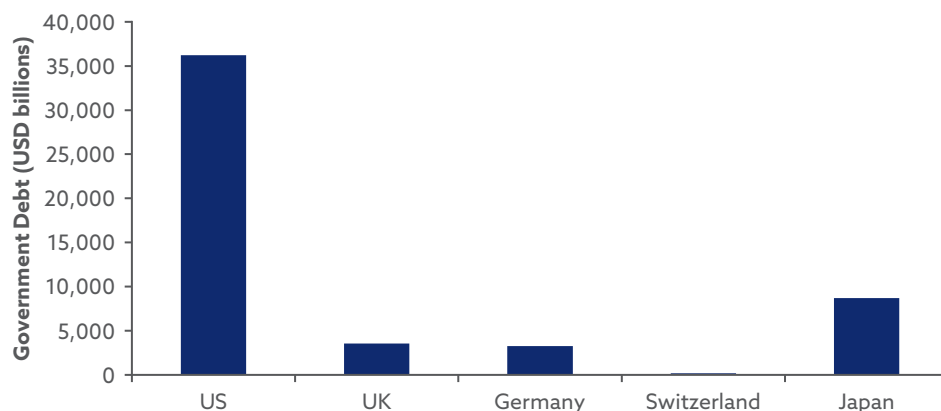
recorded in peacetime, its deficits are roughly twice as large as those of other major industrial economies.

Are There Alternatives to US Treasuries?

Given the mounting evidence of a rising risk premium in US Treasuries and the projected budget deficits over the next decade, investors are starting to look for potential alternatives to them as safe assets. The main challenge is the sheer lack of supply of other potential safe-haven assets.

Exhibit 27 shows the total volume of government bonds outstanding in the United States

Exhibit 27. Total Amount of Government Debt Outstanding at the End of 2024 by Market



Sources: Data from Bloomberg and Panmure Liberum.

compared with Japan (the world's second-largest issuer of government bonds), the United Kingdom, and the safest borrowers (Germany and Switzerland). Roughly 10 times the amount of US Treasuries are in circulation compared with German Bunds or UK Gilts, and roughly 200 times the amount of Swiss Eidgenossen.

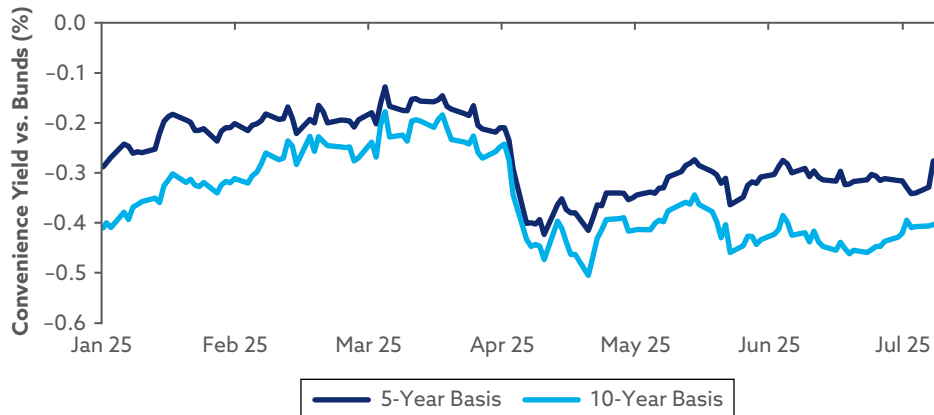
The main challenge to finding a replacement for US Treasuries as safe assets is that countries that have low default risks do so because they have very little debt. This is just another way of saying they have not issued many government bonds.

Even a relatively small shift in global demand from Treasuries to other government bonds can thus move markets. Jiang et al. (2025) analysed the response of the Treasury and dollar markets to the US tariffs announced on so-called Liberation Day (2 April 2025). One measure the authors used was the convenience yield of US Treasuries. This convenience yield is the difference between the actual yield of owning a Treasury note and that of a synthetic Treasury, replicated by holding a German Bund and swapping the currency and interest payments to replicate those of a US Treasury. Historically, this convenience yield was positive because it is more complex and inconvenient to replicate a Treasury note from foreign government bonds synthetically. In 2024, however, the convenience yield turned negative, indicating that investors prefer holding a synthetic Treasury with the counterparty risk of Germany instead of a real US Treasury security.

When the hefty tariffs were originally announced in April 2025, markets shifted rapidly out of Treasuries and into German Bunds and other government bonds perceived as safer, a move that created a step change in the convenience yield. **Exhibit 28** illustrates the shift in the convenience yield in the first half of 2025. This graph shows that even a relatively small shift in demand from Treasuries to other government bonds has the potential to significantly move government bond yields in the United States and abroad.

As of mid-2025, Treasury markets are once again calm, but the data presented in this brief indicate that, in the coming years, Treasury yields will likely face a growing supply overhang

Exhibit 28. Convenience Yield of Treasuries in 2025



Sources: Data from Bloomberg and Panmure Liberum.

that increases the risk premium in these assets. This rising risk premium has many potential consequences for investors worldwide:

- It may distort government bond yields in alternative safe-haven countries such as Germany and Switzerland, where investor demand may rise significantly (compared with existing supply) as international investors try to rebalance their portfolios and reduce Treasury holdings.
- It will increase the cost of debt in the United States, because corporate credit is priced relative to Treasuries.
- It will increase discount rates for future cash flows in the United States, because cash flows are also priced relative to the real risk-free rate provided by Treasuries.
- It will increase the cost of debt for the US government and, consequently, debt-servicing expenses, thus increasing the deficit even more.

In the short run, a rising risk premium on Treasuries may be offset by cyclical developments, such as rate cuts by the Federal Reserve. Long-term investors, however, may need to consider the long-term increase of Treasury yields in their investment decisions.

Is US Dollar Supremacy at Risk?

A related risk for the United States is that investors may decide to reduce their dollar holdings, in general, in anticipation of a potential devaluation of the currency as debts mount. Creating inflation and devaluing the currency is a time-honoured tradition among overly indebted countries. Unlike in the Treasury market, in which supply in foreign government bonds is insufficient to provide an alternative, no such supply constraints exist in currency markets.

Additionally, recurring media reports discuss countries deciding to settle their bilateral trade flows in Chinese yuan or euro rather than US dollars. This shift triggers another spike in concern about the dollar's role as the global reserve currency.

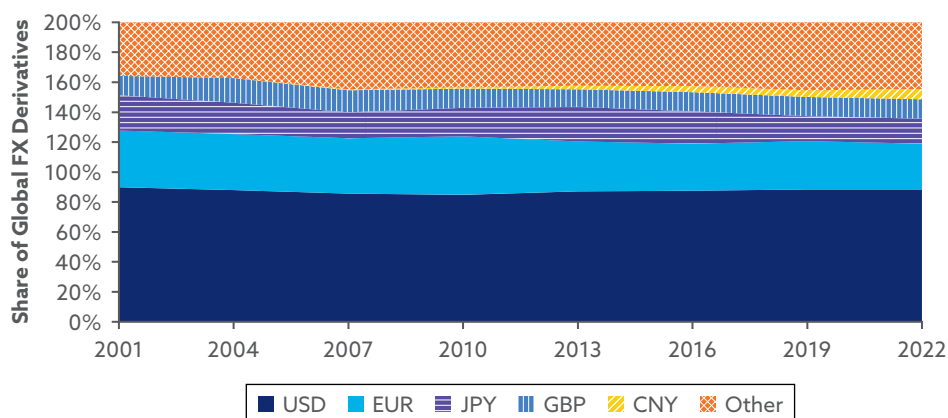
These risks are frequently overstated in the media and among investors. The data on US dollar use in global markets do not give rise to such concerns. Every three years, the Bank for International Settlements (BIS) provides a comprehensive overview of global trade volumes in currency and interest rate derivatives. **Exhibit 29** shows the market shares of the five largest currencies in global foreign exchange (FX) swaps, futures, and forwards.⁶ Although the Chinese yuan has become more prominent since the 2008 Global Financial Crisis, rising from 1% of all FX trades in 2010 to 7% in 2022, the US dollar share has increased as well, from 85% to 88%. The losers in global currency markets have been currencies such as the euro and the yen, not the US dollar.

Interest rate markets show an even stronger picture of continued US dollar dominance, as illustrated in **Exhibit 30**. Between 2010 and 2022, the market share of US dollar interest rate derivatives has increased from 33% to 44%. Admittedly, data from BIS are from 2022; the latest global survey, launched in Q2 2025, will be published in 2026. Barring major shocks, it will take a long time to significantly reduce the share of currency and interest rate transactions conducted in US dollars in the global market.

Finally, another “sign” of waning US dollar importance is the diversification of central bank reserves away from the US dollar and toward currencies such as the Chinese yuan. It is undoubtedly true that since 2010, the share of the US dollar in global central bank reserves has declined. It has declined, however, from 62% to 58% in 15 years, as **Exhibit 31** shows. And dollar reserves remain larger than all other currency reserves (and gold reserves) put together.

Five years ago, the supremacy of the US dollar was unquestioned, and the risk premium on Treasuries was virtually zero. Over the past couple of years, however, rising default risks have emerged as a potential new geoeconomic risk. Evidence is mounting that excessive

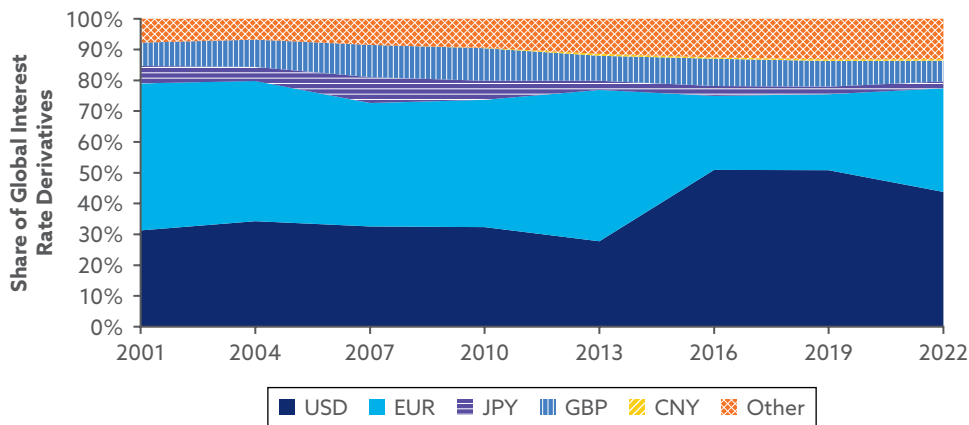
Exhibit 29. US Dollar Still Involved in Almost All Currency Derivatives



Source: Data from BIS.

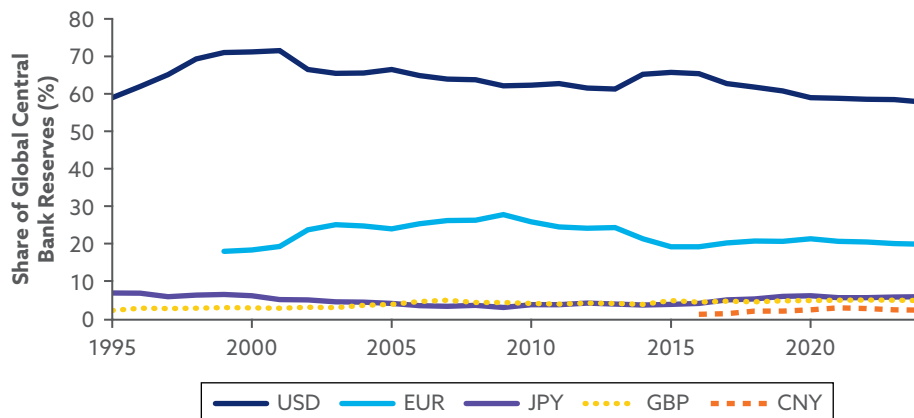
⁶Note that the market shares add up to 200% because every FX swap involves two currencies.

Exhibit 30. Importance of the Dollar in Interest Rate Markets Has Increased



Source: Data from BIS.

Exhibit 31. Share of Global Central Bank Reserves



Source: Data from IMF.

US government deficits and debt-to-GDP ratios increase the natural real rate of interest for Treasuries.

The fact that all dollar assets are priced relative to Treasuries potentially influences the pricing of a large part of global financial markets. Moreover, because of a lack of supply, there is no viable alternative to Treasuries among other global safe assets. As a result, financial assets in general will become riskier, and bond yields around the globe may be distorted as investors try to diversify their portfolios and reduce concentrated Treasury holdings.

Mark Twain's famous quote applies, however: The reports of the "death" of Treasuries and the dollar are greatly exaggerated. Signs show that international investors are increasing the diversification of their government bond and currency holdings, but nothing indicates that investors are abandoning Treasuries or the dollar on a large scale. In a geopolitically fragmented world, this portfolio rebalancing and increased diversification simply reflects the economic realities of our time.

Concluding Thoughts

The 2020s are shaping up to becoming the geoeconomic decade. Following three decades of geopolitical stability since the end of the Cold War, global trade, defence, and political alliances are now being reshuffled at a rapid pace. The rivalry between the United States and China remains the key economic development on the geopolitical front. In its wake, global supply chains are being reordered and businesses are reconsidering their investment activity.

Meanwhile, the Russian invasion of Ukraine has shaken Europe's cosy geoeconomic position, wherein it could rely on the United States for defence while also tapping into cheap natural gas from Russia to supply its energy needs. The result is a rapid expansion of European defence capabilities and increased efforts to reduce fossil fuel dependency by investing in renewable energy and other low-carbon sources of power.

Additionally, US fiscal profligacy is increasingly undermining the perception of US Treasuries as low-risk assets. Although this dynamic does not spell the end of US dollar dominance in global currency markets, it will lead to increasing diversification of international portfolios toward other government bonds and currencies.

This shift will create important global investment trends in the second half of this decade, from the rearmament of Europe to the divergence in the energy transition between the United States and the rest of the world. It also will have an impact on discount rates of future cash flows, as the risk premium on Treasuries increases and global portfolio investments may flow from the US dollar to the euro, Chinese yuan, and other currencies.

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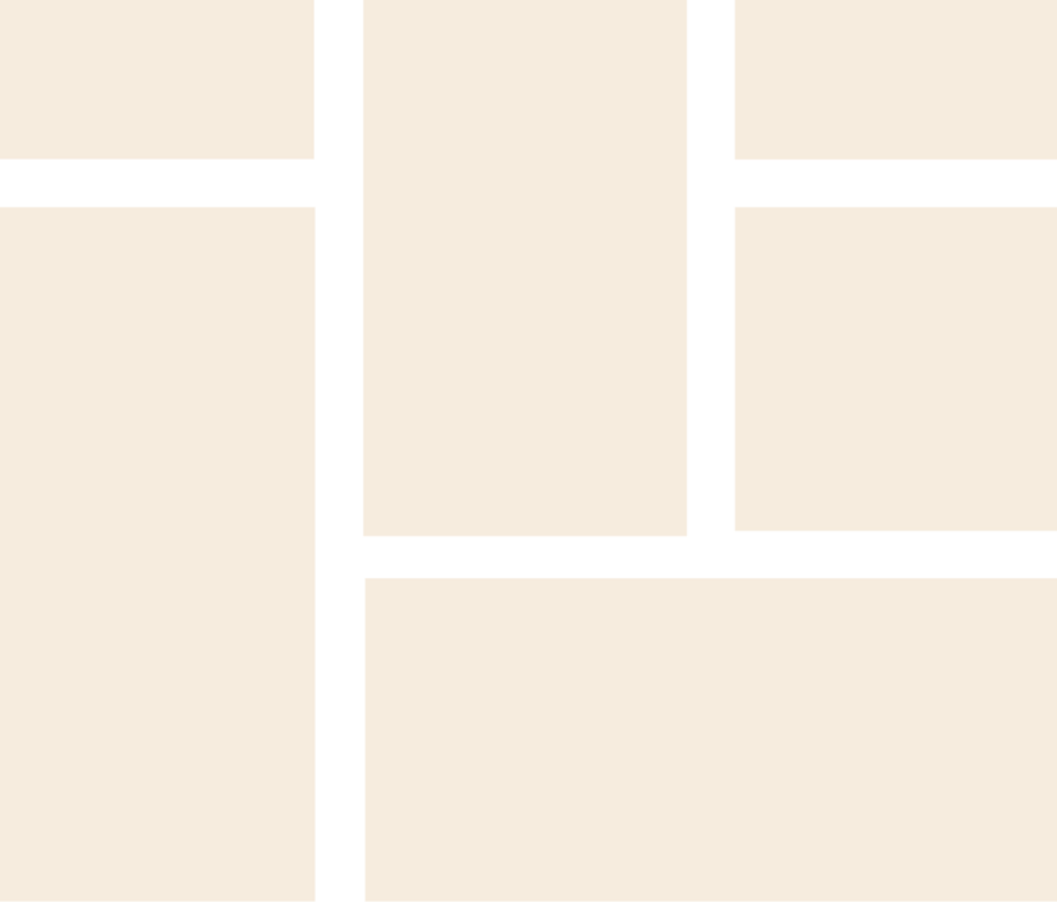
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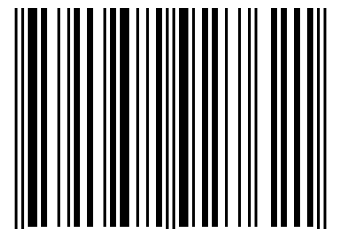
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