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# The cost of de-globalising world trade

## Economic scenarios for the world's turn inwards

A report by The Economist Intelligence Unit



Commissioned by



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## About this report

**T**his report is built on a research programme undertaken by The Economist Intelligence Unit (The EIU) between August and December 2020 and commissioned by Huawei. The EIU research team included Alexander van Kemenade, Michael Frank, Christopher Clague, Shreyansh Jain and Yanning Jin. Badri Narayanan Gopalakrishnan served as an advisor on the Global Trade Analysis Project (GTAP) model. The EIU bears sole responsibility for the content of this report. The findings and views expressed do not necessarily reflect the views of Huawei.

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## Executive summary

**A**fter decades of propelling global economic growth through the international flow of goods, services, people and ideas, globalisation is in crisis. Already under pressure from geopolitical tensions and the rise of populist politics, the covid-19 pandemic has caused even the most free-market-oriented economies to question their reliance on global supply chains and trumpet the value of self-sufficiency.

This report aims to highlight the potential economic losses resulting from “de-globalising” the world economy, focusing on international trade. The potential impact of emerging obstacles to trade is simulated using a Computable General Equilibrium model, focusing on three distinct scenarios for the coming decade.

As countries continue to wrestle with covid-19, The Economist Intelligence Unit expects global GDP to contract by 4.7% in 2020, while global trade is likely to shrink by 10.6%. Although a rebound is expected to begin in 2021, large amounts of debt accumulated during the pandemic will make for a fragile recovery. This report presents three scenarios that highlight downside risks to the already pessimistic baseline global economic outlook:

- **Full decoupling:** Rising geopolitical tensions culminate in deliberate trade decoupling of China and the Five Eyes countries (Australia, Canada, New Zealand, the UK and the US). Tariffs of 100% are applied on all goods and services, except in strategically important sectors (pharmaceuticals; ferrous metals; metal products; computer, electronic and optical products; utilities; and communications) where the countries institute embargos.
- **Local necessities:** Trade blocs and large countries adopt protection measures in an attempt to ensure domestic supply and boost self-sufficiency in essential goods, including food and medicine. Those implementing tariffs to protect domestic industry, as well as export taxes to encourage stockpiling, include the US, Mexico and Canada (under the USMCA agreement); the EU; the Mercosur countries; China; India; Japan; and South Korea.
- **Shorter runways:** The disruptive impact of covid-19 on supply chains leads to higher trade costs across all countries. More complex supply chains that are spread over multiple countries face greater disruption.

**Figure 1: The impact on GDP of our three scenarios**

Scenario	Deviation from baseline forecast in global GDP 2021-30, cumulative	
	US\$ trn	%
Full decoupling	-52.8	-3.8%
Local necessities	-8.4	-0.6%
Shorter runways	-17.2	-1.2%

### **Full decoupling:**

**A trade rift between China and the US (and its Five Eyes allies) would create a significant drag on global economic growth over the next decade.** The stakes in this scenario are high, owing to the sheer volume of trade that exists between the world's two largest economies—trade that would be virtually wiped out in this scenario. The cumulative loss to global GDP relative to the baseline forecast in 2021-30 amounts to US\$52.8trn in 2020 prices. This is equivalent to losing an economy the size of Japan every year for the next decade.

Although China suffers the most in this scenario, with 2021-30 aggregate GDP 16.5% lower than in the baseline forecast, the economic damage would reverberate across the global economy. Five Eyes countries with high export dependence on China (Australia and Canada) stand to bear the next greatest losses. But even non-parties to the ongoing trade confrontation, including South Korea and Germany, would sustain collateral damage from the disruption to global demand and supply chains.

### **Local necessities:**

**Countries seeking to boost self-sufficiency in essential goods face a trade-off between economic efficiency and security.** The increased self-sufficiency described in this scenario would lead to a cumulative loss of 0.7% of GDP for implementing countries in 2021-30. Countries that do not implement the related tariffs perform better, but still lose, with output 0.2% lower than in our baseline forecast. The cumulative loss to global GDP in 2021-30 amounts to US\$8.4trn at 2020 prices, equivalent to a 0.6% loss relative to the baseline forecast.

Trade-dependent economies that import and export large quantities of goods from the affected sectors suffer the most. In terms of GDP loss, South Korea (-2.1%) and China (-1.8%) are hit the hardest. For South Korea, the measures might be considered worthwhile, given that adopting them would increase the country's self-sufficiency ratio for primary and secondary goods by over 10 percentage points. China's self-sufficiency rate is already extremely high, and it therefore has relatively little to gain. Economies with limited exposure to trade in the affected sectors escape relatively unscathed. The impact on India, for example, is negligible.

### **Shorter runways:**

**Countries with the most globalised supply chains face the greatest disruption from the covid-19 pandemic.** The total hit to global GDP in this scenario is US\$17.2trn (or 1.2%) over the decade. Most of that damage is concentrated in 2021-22, when global trade loses US\$15trn (2020 prices) relative to the baseline forecast. The greatest costs are associated with a high degree of economic dependence on integrated industries. The Netherlands and Mexico both experience negative impacts, which is not surprising, given their level of supply-chain integration. However, the biggest loser is Vietnam, a country with one of the lowest incidences of covid-19 in the world but a key player in the global manufacturing supply chain. Vietnam's output would be 8.2% lower than the baseline forecast for 2021-30.

A rebound in international trade would contribute significantly to broader economic recovery, while a localist turn in the politics of trade would be disastrous. To achieve a global rebound, multilateral trade liberalisation needs a shot in the arm. Reforming and updating the World Trade Organisation (WTO) would be a good place to start. Introducing greater flexibility for like-minded WTO members to forge ahead with trade liberalisation would allow countries to proceed with market reforms at their

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own preferred pace. Global trade rules are also particularly ill-equipped to deal with the problems of the digital age—there are no global rules on cybersecurity, for instance. A flurry of legislation on data handling practices in the past five years has created a global patchwork of rules, making cross-border business operations for data-oriented companies exceedingly difficult.

There is hope for globalisation in the form of continued advancement of regional trade agreements, such as the recently signed Regional Comprehensive Economic Partnership (made up of ten Southeast Asian countries, in addition to South Korea, China, Australia, New Zealand and Japan) and others currently under discussion. However, regionalism is unlikely to replace the driving impact on economic growth that effective multilateral co-ordination is capable of delivering.

The rules-based international system has underpinned stability and growth for the better part of a century. In the wake of the economic devastation wrought by covid-19, the world can ill-afford to turn inward. Facing grave uncertainty over what the post-pandemic world will look like, businesses are looking for confidence to invest in rebuilding international links broken by global lockdowns, economic nationalism and travel bans. Political leaders would do well to provide it.

## Introduction

**G**lobalisation has finally met its match. The ever-freer flow of goods, knowledge, capital and people around the world was once thought to be an unstoppable force. However, already-weak political momentum behind trade liberalisation has been battered by populism and superpower rivalry in recent years. Covid-19 not only shut down travel and disrupted logistics; it also gave rise to medical-supply nationalism, bringing international collaboration to a low point.

Although international commerce and travel will resume after the pandemic recedes, it is far from clear that there will be a full recovery. Nationalist politics have gripped developed and developing countries alike and show few signs of retreating. Fears of supply shortages have left even the most open countries searching for ways to bolster supply-chain security, which can easily morph into protectionism. What initially looked like a trade spat between the US and China, the two largest economies in the world, is turning into something far more ominous.

The world should not take economic openness for granted. This report aims to highlight the economic threat posed by forces that risk putting the gears of globalisation into reverse. It focuses on world trade and what would happen to them in three distinct scenarios, each taken from the Risk Briefing produced by The Economist Intelligence Unit (EIU):

- **Full decoupling:** Trade tensions escalate between China and the US (and its closest allies, the Five Eyes countries) to the point where nearly all bilateral trade is wiped out.
- **Local necessities:** Policies are adopted to build regional or national self-sufficiency in essential goods (such as food and medicine).
- **Shorter runways:** Covid-19 starts to cause major disruptions to supply chains and increase the cost of trade between countries.

These scenarios encapsulate distinct trends persisting throughout 2020. They may evolve in any combination or magnitude. The assumptions that we have used to operationalise the scenarios in our modelling are aggressive but not apocalyptic. Given the current political climate, there is no optimistic scenario included in this report, although the possibility of such an outcome should not be excluded. Achieving such an outcome will require global leadership and a renewed push for multilateralism, which will not be easy.

To ensure that the complexities of the global trading system are rigorously captured, the Global Trade Analysis Project, a computable general equilibrium model, is used to simulate the economic impact of these three scenarios. More details on the model and the scenario results are presented in the section *Scenarios for world trade*.

This introductory chapter describes the main trends in world trade since the second world war. It begins with the creation of the multilateral trading system and the subsequent golden era of rapid growth in trade, before moving to the period following the 2008-09 global financial crisis and the phenomenon of “slowbalisation”, or the stalling (rather than the decline) of globalisation. The next section discusses the rise of anti-trade politics, particularly in Western countries, with an emphasis on underlying causes and



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potential ways forward. Readers familiar with the tumult of anti-globalism, its causes and the geopolitics of trade may wish to skip directly to the model findings in Scenarios for world trade.

#### Globalisation's golden era

Ever since David Ricardo, a British economist, articulated the theory of comparative advantage in the early 19th century, the notion that countries should specialise in producing things it is good at making and trade for other things it needs has become accepted wisdom. Practicing trade, according to Ricardo, results in the world being able to produce (and consume) more goods than under conditions of autarky.

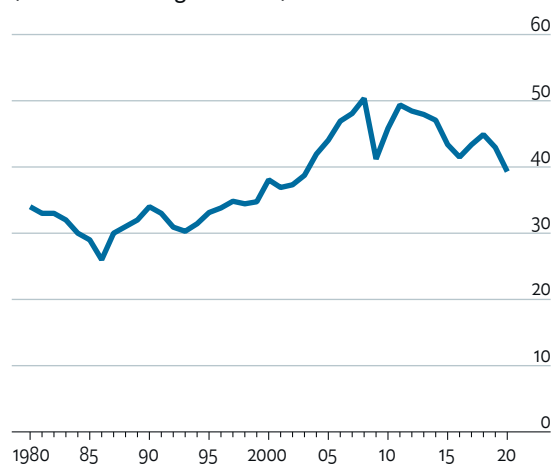
Yet, it took well over a century and two destructive world wars for Ricardo's insight to become enshrined in a far-reaching global compact. It was never economic logic that primarily motivated world leaders to create the multilateral trading system, but a desire for peace. Meeting in the midst of war in Newfoundland in 1941, Winston Churchill and Franklin Roosevelt set out principles for the post-war world in what became known as the Atlantic Charter, which stated as one of its goals "to further the enjoyment by all States, great or small, victor or vanquished, of access on equal terms, to the trade and to the raw materials of the world which are needed for their economic prosperity". The vision laid out in the charter was carried out in the General Agreement on Tariffs and Trade (GATT), the most ambitious global trade agreement ever signed, in 1947.

Four years later, Europe established the European Coal and Steel Community (ECSC), which centralised management of the resources critical to the continent for waging war and created an internal free market that any member country could access. Again, economic integration was seen as a means to ensure peace.

By the end of the century, global trade governance had broken new ground. The ECSC would later become the EU, effectively the world's most integrated free-trade area. The question of war in Europe became unthinkable. The GATT evolved into the World Trade Organisation (WTO) in 1995, which expanded the areas covered by rules on world trade into services and intellectual property. More crucially, the WTO's dispute settlement arm was given the authority to rule on trade disagreements involving its members, a remarkable leap of progress for internationalism.

Meanwhile, world trade boomed. The value of trade as a share of world GDP rose from 27% in 1960 to a peak of 61% in 2008, just before the onset of the global financial crisis (GFC; see Figure 2). The benefits of trade have been found to extend beyond the mathematical logic conceived of by Ricardo. It is not just

**Figure 2: A decade of slowbalisation**  
(total trade, % of global GDP)



Source: World Bank.

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that more specialisation leads to increased production; trade itself is also a vehicle for knowledge and productivity.<sup>1</sup> Firms can learn from producing goods for buyers in other countries.<sup>2</sup> They benefit from importing technologies and materials that otherwise would not be available.<sup>3</sup> Competing with foreign companies also forces local producers to innovate to stay ahead.<sup>4</sup>

### From “slowbalisation” to de-globalisation?

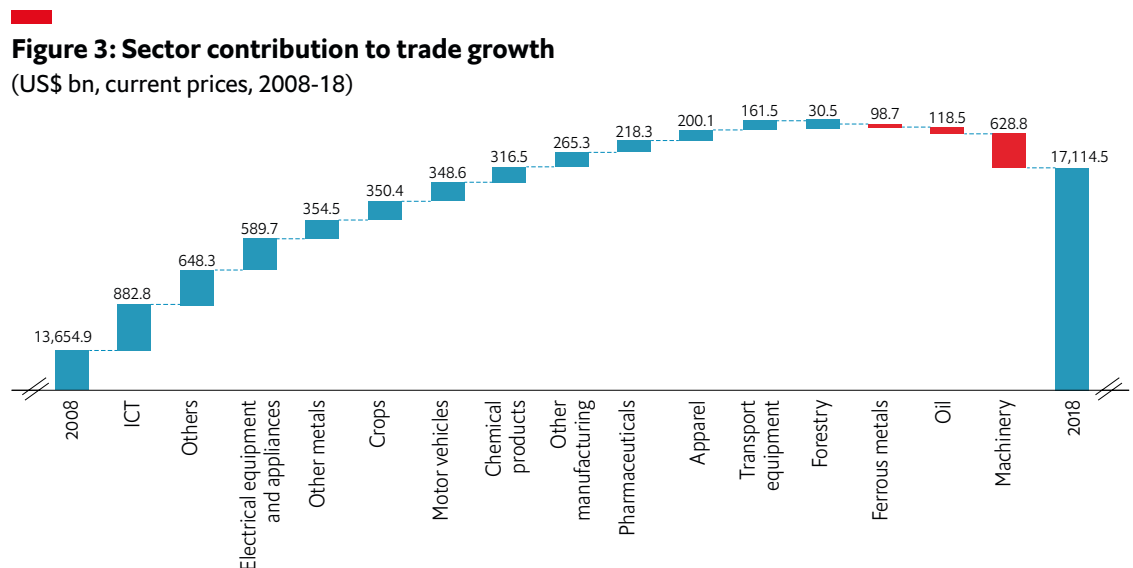
Since 2008, the story of globalisation has been mixed. World trade no longer leads GDP growth, but rather grows with it. This trend is not limited to trade; virtually every other measure of globalisation exhibits either flat or declining growth compared with GDP, including foreign direct investment, cross-border bank loans and the profits of multinationals.

What is leading to this “slowbalising” of trade? There are multiple reasons behind this shift. Some are straightforward. The shale revolution, for example, has reduced the need for the US to import large amounts of oil and gas from overseas. China’s changing economy also plays a large part. In the 2000s a construction boom in the country drove up demand and prices for equipment and natural resources,

**A more straightforward explanation for the falling trade intensity of economic growth is that nations have simply lost their appetite for more trade... If a dearth of political will to liberalise trade has led to the stalling of globalisation, a nationalist lurch in national politics may well reverse it.**

but as the emerging Asian giant’s growth slowed in the 2010s, these dynamics went into reverse. At the same time, China became better at producing certain things, such as construction equipment, thus reducing the need for imports (see Figure 3).

A third factor is the shifting of growth in trade from tangible goods to services. Although available data suggest that the tertiary sector is outperforming merchandise on trade, such data is patchy. When a freelance developer in Poland



Source: Global Trade Analysis Project.

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performs a coding job for someone in London, or when a Sri Lankan watches a YouTube video created by South Korean dancers, it is likely that the transaction is not recorded in services trade data.

Technology is countering the slowing trend in trade, both in hardware and software. Trade in electronics products and components, and the machines required to produce them, has boomed alongside the tweets, likes and memes that populate the expanding online universe (see Figure 3). Container ships were the vessels of choice for trade in the 20th century, but in a rapidly digitalising economy they are being replaced by fibre-optic cables transmitting data between servers and smartphones around the world. While international hardware sales are easily tracked, measuring the value of cross-border information flows remains a daunting task for statisticians and policymakers.

It is not clear whether digital technology is having a substitutive or complementary effect on demand for material goods. Aspiring modern-day digital consumers require at least one smartphone, coupled with any combination of Bluetooth speakers, noise-cancelling headphones, virtual reality goggles and smartwatches, all powered by vast server farms and broadband infrastructure. This may all come on top of demand for “traditional” goods such as cars, microwave ovens and trendy sports shoes. On the other hand, spending more time online may also reduce activity that requires corporeal things, such as sports or holidays.

While the jury is still out on the causes behind slowbalisation, one trend is clear—free trade no longer enjoys the political support that it once did, especially in advanced economies. This can be seen in stalled multilateral negotiations on trade liberalisation, which have been dormant since the Doha round was effectively shelved in 2008, and in trade-restricting measures that have mushroomed around the world since the rise of 21st-century populism.

If a dearth of political will to liberalise trade has led to the stalling of trade-led globalisation, a nationalist lurch in national politics may well reverse it. The covid-19 pandemic has reduced international co-operation to its lowest point in decades, creating a volatile environment. The next section of this report examines the new politics of trade.

## The new politics of trade

### Populism and trade in the West

As protests against globalisation gathered steam in the West in the 1990s and early 2000s, TV networks showed dramatic footage of aggrieved farmers, anarchists and activists clashing with police on the side-lines of G7 and WTO meetings. The motley crew of protesters became symbolic of the emerging anti-globalisation movement, which was essentially anti-capitalist and pro-development for poor countries. The narrative was supported by Nobel prize-winning economists such as Joseph Stiglitz, who framed the discourse around globalisation in terms of the global North riding roughshod over the interests of the South:

The result of [the Uruguay Round] was just as everybody had expected: the richest countries of the world (the United States and the EU) got the lion's share of the gains—but what they did not expect was that the poorest countries would actually be worse off ... You can see this in the fact that the advanced industrial countries still maintain tariffs that are four times higher against the poor countries than the tariffs they have against other rich countries; in fact, their whole tariff structure is directed against trade with poor economies.<sup>5</sup>

Although tensions between North and South did exist—ultimately contributing to the demise of the Doha Round—the problem with such a framing of the debate is that it downplays the importance of domestic politics within advanced economies. The emerging anxiety around trade liberalisation in the US was summarised succinctly by Ross Perot, a US presidential candidate in 1992, who warned of a “giant sucking sound” of jobs moving to Mexico if the North American Free Trade Agreement (NAFTA) was adopted.

Mr Perot, an independent candidate, ultimately lost the election. But his sentiment towards free trade has prevailed, notably with the political left. NAFTA was eventually approved by Congress in 1993 with a 54% majority, but Bill Clinton, the president in 1993-2001, was unable to win broad support from his own party: only 40% of Democratic lawmakers in the House voted for the agreement, compared with 75% of Republicans. Subsequent FTAs, such as those with Panama, Colombia and South Korea under the administration of Barack Obama (2008-16) met with similar Democratic opposition in Congress.

Since the GFC, however, the dynamic has been shifting. For much of the past two decades, sentiment against trade has been gradually increasing in the US as a whole (see Figure 4), but the trend differs by party affiliation. Over the past decade Democratic voters have steadily become more positive towards trade, while their Republican counterparts have broadly moved in the opposite direction (although there is substantial volatility over time with regards to the latter). In 2016, the year that Donald Trump was elected president, the share of Republican voters who told a Pew poll that they saw trade agreements

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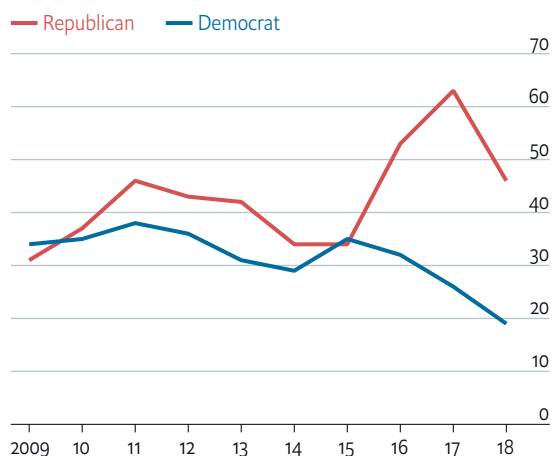
between the US and other countries as a “bad thing” jumped from 33% to 63%, only to fall back to 46% in 2018.

One of the great puzzles of US politics is how the majority of voters can be pro-trade while

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**Figure 4: Sentiment against free trade in the US**  
(% of respondents seeing trade deals as a “bad thing”)



Source: Pew Research Center.

politicians have grown increasingly averse to trade liberalisation. This is all the more baffling for the Democratic Party, whose supporters have become increasingly pro-trade over the past decade. During their respective bids for the presidency, both Hillary Clinton and Joe Biden campaigned on platforms that were lukewarm, if not antagonist, towards trade.

The key to the puzzle lies in the logic of the Electoral College, which gives disproportionate voice to voters in swing states. Of the top ten blue-collar states in the US (measured by the share of jobs in manufacturing), six swung in the presidential elections of 2008, 2012 and 2016. These included two of the critical “blue wall” states that helped to secure Mr Biden victory in the 2020

election, Wisconsin and Michigan. In contrast, only one of the least blue-collar states—Florida—was a swing state, albeit an important one (see Figure 5).

More analysis on the link between voter behaviour, manufacturing employment and trade is presented in the next section focusing on inequality, but it does not require a stretch of the imagination

**Figure 5: Top and bottom ten US states by share of jobs in manufacturing**

State	% of jobs in manufacturing in 2016	Voting history*	Electoral college votes	State	% of jobs in manufacturing in 2016	Voting history*	Electoral college votes
<b>Top 10 states</b>				<b>Bottom 10 states</b>			
Indiana	21.4%	Mixed	11	Hawaii	8.0%	Blue	4
Wisconsin	19.9%	Mixed	10	New York	8.8%	Blue	29
Michigan	17.6%	Mixed	16	New Jersey	9.8%	Blue	14
Iowa	18.9%	Mixed	6	Maryland	9.7%	Blue	10
Alabama	17.9%	Red	9	Florida	10.0%	Mixed	29
Kentucky	17.6%	Red	8	Nevada	10.3%	Blue	6
Arkansas	17.2%	Red	6	Delaware	10.3%	Blue	3
Mississippi	16.9%	Red	6	New Mexico	10.8%	Blue	5
Ohio	16.5%	Mixed	18	Virginia	10.9%	Blue	13
South Carolina	16.4%	Red	9	Massachusetts	11.0%	Blue	11

\*2016, 2012 & 2008 presidential elections

Sources: Centre for Economic Policy Research, The Economist Intelligence Unit.

to see how the battle for blue-collar votes has had an outsized influence on America’s policy agenda. Blue-collar states have a tendency to vote for Republican candidates. Having witnessed the blue wall crumble in 2016, it is likely that the Democrats were unwilling to take any risks.

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Sure enough, in the run-up to the 2020 election, Mr Trump reaffirmed his support for tough, nationalist economic policies while Mr Biden refrained from directly opposing him, instead proposing variations on his opponent's theme, such as a greater willingness to work with Europe on isolating China.

These developments have occurred against the backdrop of the Trump administration going further than any government in crippling the WTO. In late 2018 the US blocked the appointment of new judges to the WTO's appellate body, accusing it of "addressing issues it has no authority to address, taking actions

**The EU has so far refrained from erecting trade barriers or attacking international institutions (itself one) in a major way. However, that has not stopped a shifting of mindsets among Europe's mainstream leaders away from the free market competition towards dirigism.**

it has no authority to take and interpreting WTO agreements in ways not envisioned by the WTO members who entered into those agreements".<sup>6</sup> For world trade, this act was equivalent to disbanding the supreme court, leaving no one in place to rule on trade disputes. With multilateral trade negotiations indefinitely postponed and the judges of its highest court absent, the WTO is now effectively defunct, significantly increasing the risk of a global slide into protectionism.

In Europe, attitudes towards trade are generally more positive than in the US, although some countries, such as Italy, form exceptions. Instead, the continent's main frustration with globalisation relates to immigration, especially (but not limited to) migrant inflows from Muslim countries. The main feature distinguishing those voting for right-wing populist parties is anti-immigration sentiment.<sup>7</sup>

Immigration was identified as the second most important issue for British citizens who voted to leave the EU (the first is general loss of sovereignty). But despite antipathy towards this facet of globalism and the EU, opinion polls suggest Britons are at least as supportive of free trade, if not more so, than other large European economies such as Germany and France.<sup>8</sup>

The EU has thus so far refrained from erecting trade barriers or attacking international institutions (itself one) in a major way. However, that has not stopped a shifting of mindsets among Europe's mainstream leaders away from free-market competition towards dirigism.

"We have seen that others, whether the United States of America, South Korea, Japan or China, have relied very heavily on global champions, and I believe that this approach is the necessary answer. We must not be afraid to have global champions, but we must work towards them," said Angela Merkel, Germany's chancellor, in 2020. Granted, Ms Merkel was not proposing outright trade barriers, instead alluding to possible changes in Europe's competition rules that would allow large companies to merge. But Europe's competition rules have been at the forefront of protecting consumer interests from monopolies for decades. Relaxing them would represent an admission that geopolitics and inter-state competition trump economic efficiency.

**Where things went wrong: globalisation and inequality**

How did the world get to this point? It is useful to take rising inequality as a starting point. From 1988 to 2008 (the year that the GFC began), 44% of the absolute gains in real per-capita global income are

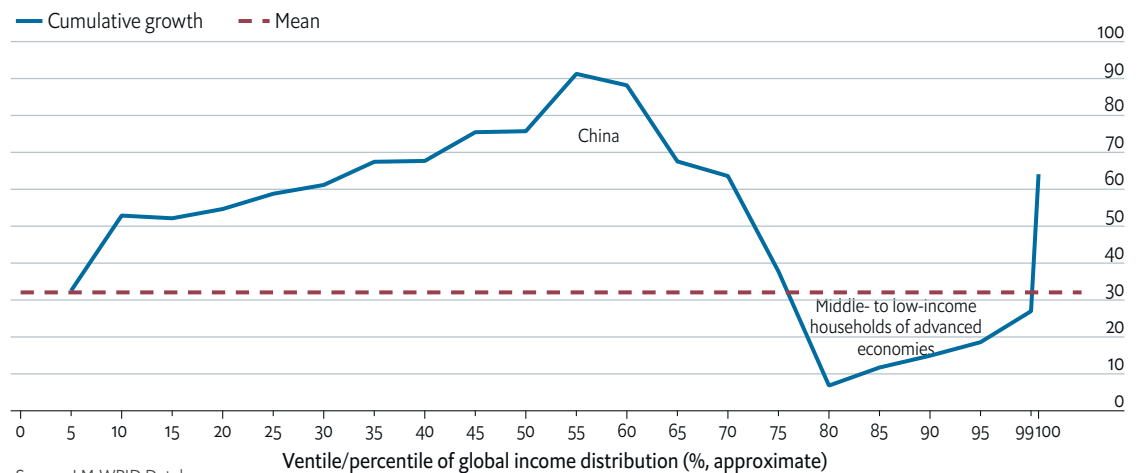
Voters in US districts that are subject to greater import competition from China, and hence greater employment displacement, tend to vote for more extreme right-wing candidates.

estimated to have gone to the richest 5% of people in the world. During the same period, only 12-13% went to the middle classes.<sup>9</sup> There were slight improvements in the years after the GFC, but most of those came in China.<sup>10</sup>

The problems associated with inequality were neatly captured in the “Elephant Curve” (see Figure 6), constructed by economists Branko Milanovic and Cristoph Lakner. The chart shows a large gap in income growth between the global middle class, consisting largely of China, and mid-to-low-income households in advanced economies, especially Japan and Eastern European countries. While the chart has provoked disagreement between proponents and opponents of globalisation, what is clear is that global income growth has been the highest in China and among the proverbial global one percent.

While the work of Messrs Milanovic and Lakner does not establish a causal link between globalisation and inequality, an emerging body of research is beginning to shed light on the matter. Trade with China has been shown to affect electoral outcomes in both the US and Europe.<sup>11,12</sup> Voters in US districts that are subject to greater import competition from China, and hence greater employment displacement, tend to vote for more extreme right-wing candidates. But populism cannot be attributed to trade alone. A link between Brexit and austerity was established in a study concluding that votes for the (pro-Brexit) UK Independence Party were higher in poorer districts that had experienced higher welfare spending cuts.<sup>13</sup> The lingering effects of the GFC may have thus also had a role to play, as has automation.

**Figure 6: Real per capita income cumulative growth by global income level, 1988-2008<sup>14</sup>**  
 (%)



Source: LM-WPID Database.

The rapid wealth accumulation by the top one percent can also be attributed to soaring asset prices attributable to loose monetary policy. This has disproportionately benefited the rich, who tend to own

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Rather than hobbling the economic growth engine that is globalisation, ensuring that provisions are made for those who lose out is a better way to maintain public support.

more stocks and property. The rapid emergence of technology giants has also created a winner-takes-all landscape where capital is increasingly concentrated in a handful of companies. Globalisation may shoulder some of the blame for inequality, but far from all of it.

Yet, the compounding of all these effects has led to the alienation of politically significant portions of Western society from wider global forces, conveniently lumped under the umbrella of globalisation. Focus group participants in the US and the UK point to undesired change in their communities that is beyond their control. Whether it is trade, immigration or technology, globalisation is perceived by many to be the source of their malaise:

Whether people described being swept up by influxes of money and people, or left behind as jobs and investment moved elsewhere, the experience of globalization was often described in terms of “loss” and no longer feeling at home in one’s community or country. In some instances, these feelings led participants to sympathize with nationalist appeals to “take back control” or put “America first.”<sup>15</sup>

A clear and consistent finding from opinion polls over time is that few citizens are against the principle of globalisation. The very notion of free trade enjoys overwhelming public support. The problem is that its benefits are not widely felt.<sup>16</sup> This should make the task of regaining public trust comparatively easier, but Western politicians have their work cut out if they are to address the root causes of anti-globalisation.

In times of economic distress, anti-trade sentiment rises and nationalist economic policies present themselves as politically convenient solutions. Economic historians are in broad agreement that past bouts of protectionism, most notably during the interwar period, have been detrimental to prosperity. More focused studies on specific instances of protection, such as anti-dumping duties, have concluded that these measures generally fail to achieve their intended effect—the generation of domestic jobs in industries targeted.<sup>17</sup> When, in 2011, Mr Obama asked Steve Jobs what it would take to bring manufacturing jobs back to the US, the former Apple CEO’s reply was blunt: “Those jobs aren’t coming back.”

Protectionist acts also tend to invite retaliation, leading to a vicious spiral of damaging policies from which neither party gains. The potential economic impact of such scenarios, from which it is clear that the economic fallout can extend well beyond the borders of the participating nations, are presented in the next chapter of this report.

Rather than hobbling the economic growth engine that is globalisation, ensuring that provisions are made for those who lose out is a better way to maintain public support. In the US, past programmes to support workers whose jobs have been displaced by trade, such as Trade Adjustment Assistance (TAA), have largely failed. Evaluation studies have found, perversely, that those who participated in TAA programmes earned less income than those who did not.<sup>18</sup>

Another problem is that highly targeted programmes to support workers affected by trade ignore complex dynamics by focusing narrowly on plants moved overseas and their direct suppliers. Powerful forces like globalisation can sweep up entire industries, supply chains and communities over extended periods of time. Studies have found that TAA is “effectively inconsequential” in providing an economic



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cushion for workers affected by trade, and that redistribution of the gains of trade from winners to losers is limited in the US.<sup>19</sup> Deeper and broader forms of employment insurance or income assistance are a more desirable alternative.

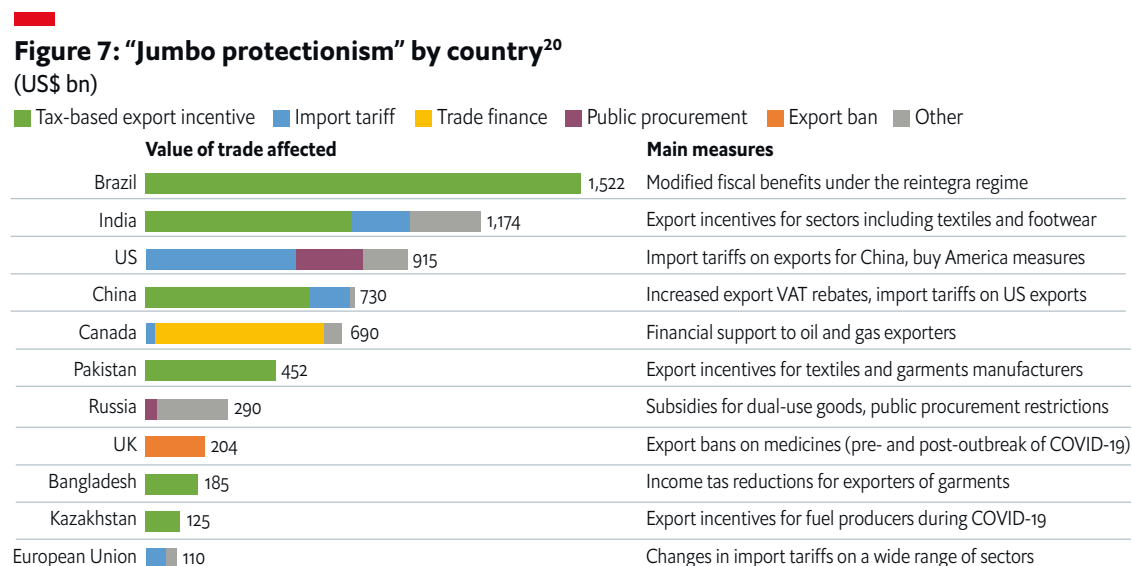
In Europe, the problem is less one of distribution than of growth altogether. After two decades of lacklustre attempts to boost economic dynamism on the old continent, its leaders have shifted their sights to building national champions. Instead, deeper questions need to be asked about its sclerotic business environment and why Europe lacks competitiveness, starting with well-known problem areas, such as implementing structural reforms to liberalise labour markets and investing in innovation-boosting research and development.

### From rules-based order to the law of the jungle?

Although a wholesale lurch toward protectionism has thus far been avoided by most of the world's countries (the exception being the US-China trade war), trade skirmishes are breaking out. High profile examples include threats being exchanged between the EU and the US over car tariffs and taxes on technology companies. Meanwhile, India has banned 59 Chinese mobile apps and is considering further measures (not just against China) under its "self-reliance" policy. For its part, China has placed sanctions on a range of Australian products, including wine and meats.

The total number of discriminatory measures implemented against non-local business globally jumped to slightly over 1,000 per year for 2018 and 2019, compared with just above 600 for each of the three preceding years, according to Global Trade Alert, a think tank that monitors trade policy measures. In the same period, the number of market-liberalising trade reforms saw its largest drop since 2009, falling from 332 to 258. Focusing on larger, more impactful measures, a count of "jumbo protectionism" shows that the US and India adopted the most such measures, at 22 each, in the "populist era", defined as Jan 2017 to Sept 2020. Russia and the UK tied in second place, with 11 measures each.

Such tallies may not fully reflect the impact of the measures, as the amount of trade in the sectors affected will vary. Measured by value of trade, Brazil tops the list with US\$1.5trn of trade affected,



Source: Global Trade Alert.

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followed by India and the US (see Figure 7). These figures do not reflect the actual impact of the measures, which is exceedingly difficult to measure, but rather the ongoing amount of trade taking place in the sectors or products affected at the time that the measures were introduced.

The figures highlight how trade-distorting interventions by governments in recent years have been a worldwide phenomenon, even though many of these measures tend to fly under the radar. Tariff wars between competing superpowers may attract the most attention, but beyond the headlines lies an extensive and growing web of subsidies, tax incentives and other policies that discriminate against foreign businesses. Although import tariffs constitute the most direct form of protectionism, they account for only 16% of trade affected by jumbo protectionist measures adopted in the populist era. By far the largest culprit has been tax-based incentives for exporters, accounting for 54% of trade affected.

Another concern is the rollout of large subsidy programs to help industry cope with the economic impact of covid-19. While emergency assistance to companies during crises is justifiable, such aid may create distorting effects on global trade, raising the risk of friction with trading partners. During the pandemic, the forms of state support to industry have also shifted from less-distorting types to ones that are more harmful to foreign businesses.<sup>21</sup>

**While emergency assistance to companies during crises is justifiable, such aid may create distorting effects on global trade, raising the risk of friction with trading partners.**

If such programmes are not rolled back effectively after the crisis, they may trigger retaliation from aggrieved trading partners.

Writing four years after the recovery from the GFC began, Daniel Drezner, a US scholar of international relations and global political economy, argued that “the [multilateral] system worked” in preventing a much worse outcome for the global economy.<sup>22</sup> It was a contrarian view at the time, but Mr Drezner marshalled a raft of compelling evidence of multilateral co-operation, restraint from “beggar thy neighbour policies” and other measures that stopped a potential great depression.

Where global trade is concerned, this sort of optimism is now questionable at best. This time around, the side-lining of the WTO, the US–China confrontation and the chaos of covid-19 have eroded the strength of the rules-based order that has underpinned global growth for much of the past century. In the face of economic pressure, governments are feeling more compelled to take defensive measures on trade—and are less likely to suffer the repercussions.

### **The China question**

In the developing world, globalisation tends to have a better reputation, particularly when it comes to the perceived positive impact of trade on incomes. A survey by the Pew Research Center found that 47% of respondents in emerging economies believe that trade increases wages, compared with only 31% in advanced economies. This may be because emerging economies have experienced higher economic growth, a large part of which has come through trade. This is particularly true for China (which was not covered in the Pew survey), which has accounted for the largest increase in world trade among all countries over the past decade (see Figure 8).

China’s policy direction, however, has been problematic for its global relations. While multinationals have grumbled about the world’s second-largest economy’s openness to foreign firms ever since it joined the WTO in 2001, in 2015 the adoption of a new industrial policy called Made in China 2025 (MIC2025)

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set alarm bells ringing. The plan set out ambitious targets for Chinese companies to increase their market share both domestically and internationally. More critically, the sectors targeted included strongholds of advanced Western manufacturing: aerospace, medical devices and microchips. The US Chamber of Commerce said that the plan aimed to “leverage the power of the state to alter competitive dynamics in global markets”, while the EU Chamber was less reserved, calling the document “a large-scale import substitution plan aimed at nationalising key industries”.<sup>23,24</sup>

History may well show that MIC2025 was a strategic misstep by Chinese policymakers. Although China’s desire to move up the technology ladder and promote its own companies has never

been a secret, having such goals clearly articulated in an official policy not only contravened the spirit of WTO rules on non-discriminatory treatment for foreign firms, but also provided plenty of fodder for China hawks in US politics. “China, in my view, brazenly has released this China 2025 plan that basically told the rest of the world, ‘We’re going to dominate every single emerging industry of the future, and therefore your economies aren’t going to have a future,’” said Peter Navarro, Mr Trump’s trade advisor, in 2019.<sup>25</sup> It is perhaps not surprising that government officials and state media in China stopped mentioning the policy shortly after the start of the US–China tariff war in mid-2018.

A full account of the deterioration of US–China relations is beyond the scope of this report. However, the downward trajectory in relations since 2018 illustrates what can happen when trade relations sour between countries. Two years into the confrontation, the US’s tough new approach to China has not made it friendlier to foreign businesses. Instead, China’s leaders are signalling their intent to bolster localist trade policies to fend off the onslaught.

Xi Jinping, China’s president, wrote that: “In order to protect China’s industrial security and national security, we should focus on building an independent and controllable, safe and reliable industrial chain and supply chain”. In addition, Mr Xi called for measures to “tighten the dependence of the international industrial chain on China, form a strong countermeasure against the artificial cut-off of supply from the foreign side and establish deterrence capability”.<sup>26</sup>

The question of how the West responds to a rising China is one that will define the global landscape in the coming decade, if not century. A business-as-usual approach is clearly no longer an option, yet there is a shortage of desirable alternatives. Part of the lack of strategic clarity stems from uncertainty over the future direction that China may take economically. On the surface, China exudes economic confidence and has all the trappings of an emerging power. Yet there also remain deep structural flaws in its financial system and mode of economic governance that may serve to hobble, if not derail, the country’s high rate of economic growth. For the purposes of this report, it is instructive to focus on China’s evolving role in the global economy.

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When China joined the WTO in 2001, economists predicted that the addition of tens of millions of workers into the global manufacturing workforce would create havoc. China's economic performance over the past two decades has lived up to that prediction: the country has effectively rearranged the global manufacturing landscape. Part of that change, especially in the earlier days of China's post-reform era, owes to multinational companies relocating production to China to benefit from lower costs and economies of scale. But beginning in the mid-2000s, a raft of industrial policies in sectors ranging from steel to solar panels and LEDs led to significant overcapacity, a collapse in prices and the flooding of global markets with cheap products. Despite acknowledging the problem, China's leaders struggled to reign in the country's hyperactive banks, the main source of funding for various industrial schemes.

Chinese officials correctly argue the country should be allowed to determine its own development policies. One might argue in addition that if the Chinese government wished to use taxpayers' money

**Two years into the confrontation, the US's tough new approach to China has not made it friendlier to foreign businesses. Instead, China's leaders are signalling their intent to bolster localist trade policies to fend off the onslaught.**

to provide cheaper products to the rest of the world, so be it. The problem is that in an economy of China's size, state action can carry global consequences and lead to job losses.

The WTO has provisions for dealing with subsidies and other forms of state support. There are even provisions specifically for dealing with China's non-market tendencies. However, the

WTO's trade agreements were not drafted with China in mind and fall short of addressing the deep embeddedness of the state in the running of its hybrid economy. Many WTO members, including China, have submitted proposals for reforming the 25-year-old institution, but with each of the organisation's 164 members holding a veto over changes to the rules—a reality described in 2003 by the then WTO head, Pascal Lamy, as “medieval”—prospects for agreement on any substantive package look slim.

The alternative is to start anew. Since the Doha round was declared a failure in 2008, a number of countries have signed or started negotiating their own regional trade agreements. The most geopolitically significant of these was the Trans-Pacific Partnership (TPP), a US-led agreement between 12 countries in Asia that contained restrictions on a variety of state intervention measures that China pointedly could not meet.

The TPP ultimately fell victim to anti-trade sentiment in the US, which withdrew in January 2017. The agreement, which proceeded without the US as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), was far-reaching, going further than the WTO's current provisions on market opening in goods and services. The TPP would also have extended restrictions applied to state-owned enterprises, subsidies and intellectual property—many of the priorities on the US's trade policy agenda with China.

The TPP was a cornerstone of the Obama administration's plan to bolster its influence in Asia. Perhaps more importantly, it would have provided a positive incentive for China to reform its own economy, which, in all likelihood, would have been more effective than the destruction wrought by US trade policy under Mr Trump. Mr Biden, the incoming president, has hinted he would consider joining the CPTPP on renegotiated terms, but he faces considerable opposition from both within his own party and

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Although China may still be some way off becoming a “core” country, it is clearly transitioning to a more mature economy that will be likely to create less global dislocation and contribute more to the growth of other countries.

Republicans. China has also signalled its willingness to join, although the terms under which it would do so remain unclear.

There are reasons to be optimistic about the future of the global economy and China’s role in it. Students of economic history will be familiar with the Bretton Woods international monetary system, which established the US dollar as the world’s reserve currency and pegged countries’ exchange rates to the value of gold. The system ostensibly collapsed in the 1970s as countries abandoned the gold standard, but a group of economists argued in 2003 that the Bretton Woods system was alive and well.<sup>27</sup> At the heart of the system, they argued, is a set of “core” and “periphery” countries. Core countries have open capital and goods markets and convertible currencies, and run trade deficits with periphery countries, who pursue a development strategy of undervaluing exchange rates, accumulating foreign exchange reserves and running trade surpluses.

In this ecosystem, periphery countries earn money through trade with core countries and then lend the money back in the form of, for example, government bonds. This allows core countries to run long-term trade deficits. The high foreign demand for government bonds lowers interest rates in the core countries, thus lowering the cost of capital, which multinational companies use to build more factories in periphery countries to sell goods locally or export back home. Under this arrangement, the core countries essentially fulfil the function of the world’s bank, maintaining a stable currency and a good credit history so that other countries are willing to lend cheaply to them, and earning high returns on the overseas factories in which they invest. The periphery countries fulfil the function of the world’s factory, running trade surpluses with core countries.

In the old Bretton Woods system, the US represented the core, with Europe and Japan as periphery countries. However, periphery countries can “graduate” to the core once they have reached a certain level of economic development and are comfortable running open capital accounts, as Europe and Japan have done. China, in turn, has emerged as the new periphery.

The critical question is whether China will also graduate to become a core country. There are signs that China is entering a new phase in its development: in the 2000s China had an undervalued exchange rate, a large trade surplus, mediocre infrastructure, a deep pool of surplus rural workers moving into manufacturing and hardly any debt. Today, China’s current-account surplus is considerably smaller relative to the size of its economy (see Figure 9), and it has exhausted its rural surplus labour pool, leading to faster wage growth. It has accumulated considerable capital, evident in the proliferation of high-speed

Republicans. China has also signalled its willingness to join, although the terms under which it would do so remain unclear.

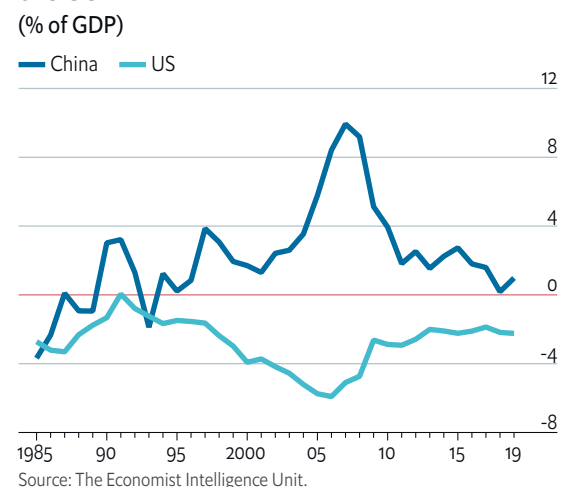
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**Figure 9: Current-account balance, China and the US**



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trains and skyscrapers, but it also has a mountain of debt. Its capital account remains closed, but it has introduced more flexibility in its exchange rate. Economic growth has slowed from over 10% a year to around 6%, and is likely to continue to slow into the coming decade.

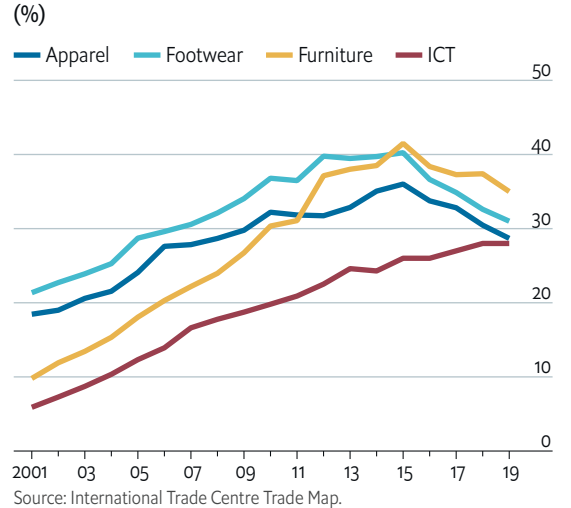
Although China may still be some way off becoming a “core” country, it is clearly transitioning to a more mature economy that will be likely to create less global dislocation and contribute more to the growth of other countries. High levels of debt mean that the government has less room to throw money at industrial development, resulting in fewer problems associated with industrial overcapacity and cheap goods flooding global markets. The shifting emphasis of growth from manufacturing to services, which are less tradeable, will also take some steam out of export growth. Rising wages (among other production costs) mean that China is also becoming less competitive as a manufacturing destination for foreign multinationals.

Supply chains have started shifting, too. It no longer makes economic sense to make certain items in China, given the rising costs of land and labour, and low-end manufacturing in sectors such as apparel and furniture has already started to shift out of hubs such as the Pearl River Delta (see Figure 10). The challenge for China will be growing high-technology industries such as information and communications technology (ICT) quickly enough to fill the gap as low-tech industries move out.

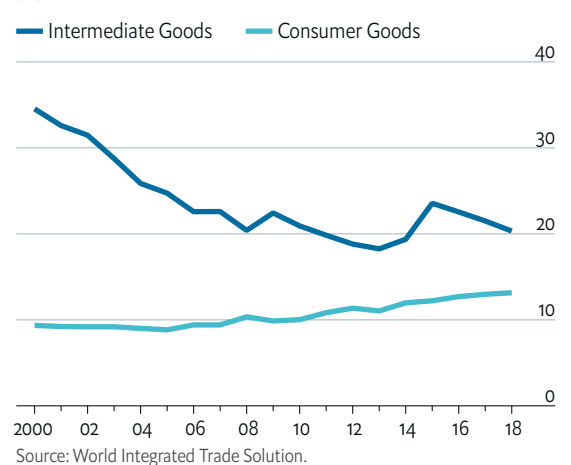
Chinese consumers are also turning into voracious consumers of imported products, whether it be French wine, Thai holidays or an American university education. As a result, the share of consumer goods, rather than goods imported for further manufacturing, is slowly but surely increasing (see Figure 11). Chinese tourists vacationing abroad spent US\$277bn overseas in 2018, nearly double the spending of international travellers from the US.<sup>28</sup> Just under 1m Chinese students enrolled in foreign universities in 2019, making them the largest group of international students in the world.<sup>29</sup>

What will become of the Bretton Woods system if China “graduates” to become a core country? The only other country in the world that has the potential to replicate the scale of China’s impact on the global economy is India. While India’s economy has taken off in recent years, with average GDP

**Figure 10: China’s global export market share (%)**



**Figure 11: Intermediate and consumer goods as a share of China’s total goods exports (%)**



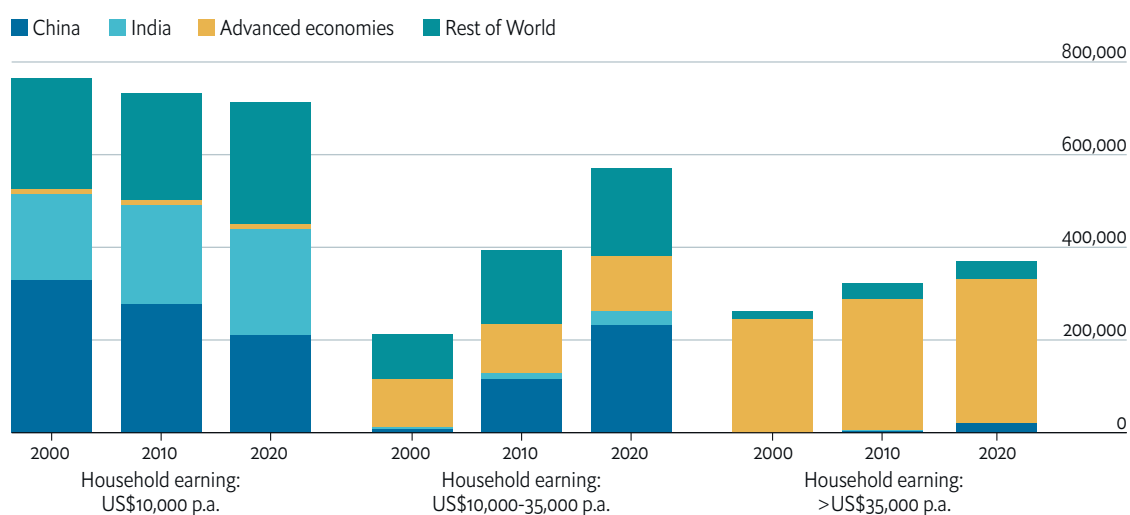
## THE COST OF DE-GLOBALISING WORLD TRADE

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growth exceeding 7% over the past decade, there are few signs that it will match the pace of China's development, especially in the manufacturing sector. The country has not run a current-account surplus since 2004.

Even if India does manage to engineer an export manufacturing miracle, the core of the Bretton Woods system will be significantly larger with China's addition and will have a much greater ability to absorb the disruptive impact of newcomers. With China's rise, over 200m households have entered the global middle-income bracket over the past decade (see Figure 12). If India adds another 200m, the relative impact will be smaller.

**Figure 12: Low-, middle- and high-income households**  
(2019 constant prices)



Source: The Economist Intelligence Unit.

These trends highlight that there are reasons to be optimistic about the coming decade. Many of the problems associated with globalisation over the past two decades have largely been about absorbing the impact of China's hyperactive entry into the world trading system. The crest of that wave looks to have passed.

### A future for multilateralism?

If regional trade agreements have become the preferred path for countries to pursue open commerce, where does that leave the multilateral system? Firstly, it is instructive to revisit why the world needs a multilateral system at all. A second question should ask to what extent the members of the world trading system are willing to transfer commercial policy authority to a global trade-governing body.

The answer to the first question is relatively straightforward. Tackling global problems, which are in no short supply, requires global co-ordination. Most immediately, as the world looks towards recovery from the covid-19 pandemic, questions remain over how vaccines will be distributed and how subsidies to businesses will be rolled back in a way that minimises distortions to trade. Beyond the pandemic, trade in goods and services that are conducive to attaining common global goals, such as mitigating climate change, has and should continue to receive special attention in a multilateral setting.

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Another obvious area where global governance makes sense is the internet. If growth in trade in the 21st century is to be dominated by bytes of data rather than containers, transparent rules on digital trade are needed to prevent cyber-trade wars from breaking out. For instance, there are currently no global rules on how to deal with cyber-security, although initiatives such as the Paris Call, an accord between national and local authorities, civil society organisations and private-sector entities, are underway. Provisions on cross-border data flows are also scant, leaving space for governments to restrict these flows and carve cyberspace into national fiefdoms.

**Tackling global problems, which are in no short supply, requires global co-ordination.**

creates legal and administrative complexity, which disproportionately penalises smaller businesses that cannot afford lawyers to help them navigate the “spaghetti bowl” of rules. A survey of over 600 exporting businesses in 2009 by the Asian Development Bank found that across five Asian countries only 17-30% of businesses actually took advantage of the preferential trading terms offered by regional trade agreements, citing administrative costs and lack of information as the main obstacles.<sup>30</sup>

The question of what objectives a multilateral system should adopt is a more complex one. Recent attempts to reform the WTO have produced sharp disagreements between its members. China, for instance, insists on its right to pursue state-led capitalism and disburse the range of subsidies that entails. The US maintains the dispute settlement function at the WTO has overstepped its boundaries. Developing countries argue to keep past provisions on preferential treatment unchanged.

In an effort to break the deadlock, experts have suggested that WTO members take a step back and identify a “new common denominator” concerning the purpose of the Geneva-based institution. Simon Evenett and Richard Baldwin, professors at the University of St Gallen and the Graduate Institute

**A fragmented network of regional trade agreements creates legal and administrative complexity, which disproportionately penalises smaller businesses.**

of International and Development Studies, respectively, propose a list of eight “imperatives” (integration, market reform, uncertainty limitation, market reform, systems clash, disruption, compliance, relevance and crisis management) to help governments to decide what the core goals of the multilateral trading system should be.<sup>31</sup> Some of these imperatives, such as market reform, are not new, but have fallen out of favour. If market reform is no longer a priority, members may wish to prioritise the institutions integrating functions, such as harmonisation of standards. Other imperatives, such as systems clash, would help to create an interface between opposing forms of economic governance, as in the case of China’s state-led capitalism versus the market capitalism of the West.

Whatever common ground WTO members are able to find, it will be difficult to find a one-size-fits-all solution for all countries. Multi-speed trade liberalisation would then be an obvious second-best option, but this has been difficult to achieve under the WTO, given the prevailing need for consensus among all members. More can be done to allow smaller groups of members to press ahead without requiring the approval from the rest.

An important argument in favour of multilateralism is that it is simply friendlier to businesses and hence more effective. A fragmented network of regional trade agreements

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## **THE COST OF DE-GLOBALISING WORLD TRADE**

### **ECONOMIC SCENARIOS FOR THE WORLD'S TURN INWARDS**

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Without greater flexibility at the WTO, it is difficult to envisage a system that will be able to maintain its relevance in the face of rapidly-evolving global needs. As time passes, the institutions of global economic governance would become increasingly fragmented, obscure and, ultimately, unable to maintain order on the issues of the day. No doubt, these concerns will top the agenda of the new director-general of the WTO, who is likely to take office in early 2021. In the meantime, deep soul-searching will be required from the organisation's leading members.

## Scenarios for world trade

### Methodology and baseline forecast

The sections that follow detail the results of modelling for each of the world trade scenarios. For each scenario, a set of input “shocks” consisting of tariff or tax equivalents was constructed to simulate how policy or disruption might affect trade. Where possible, this was guided by an assessment of historical case studies of trade wars and industrial policy, or empirical studies that aimed to measure the impact of supply chain disruption on business costs.

To establish impact, the scenario results are measured against a baseline constructed using the EIU’s country forecasts to 2030. This baseline reflects what the EIU believes is the most likely outcome for the economies covered, given current trends. Detailed baseline forecasts for countries are provided in Figure 13. These baseline forecasts assume some deterioration in the global trade environment as an effect of the covid-19 pandemic, which means that the measured impact of the scenarios is likely to be a conservative estimate.

**Figure 13: Baseline GDP and trade growth forecasts, 2021-30**

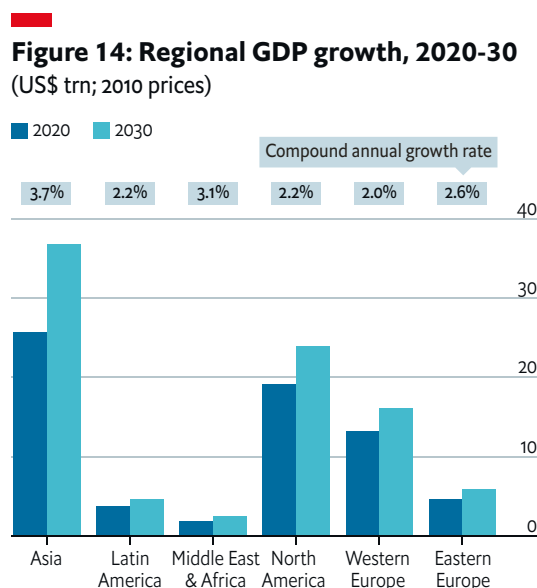
(average annual growth rates for GDP and total trade—imports and exports)

	GDP	TOTAL TRADE
Argentina	3.0%	4.7%
Australia	1.9%	2.0%
Brazil	1.8%	2.5%
Canada	2.2%	2.2%
China	4.6%	3.3%
EU	2.0%	2.9%
France	2.2%	2.8%
Germany	1.9%	2.9%
India	5.7%	6.3%
Indonesia	4.8%	4.0%
Italy	1.4%	2.2%
Japan	1.1%	2.0%
Mexico	2.5%	3.8%
Russia	1.9%	5.1%
Saudi Arabia	2.1%	2.8%
South Africa	3.6%	3.9%
South Korea	2.1%	2.2%
Turkey	3.6%	5.3%
UK	2.1%	3.3%
US	2.2%	2.6%

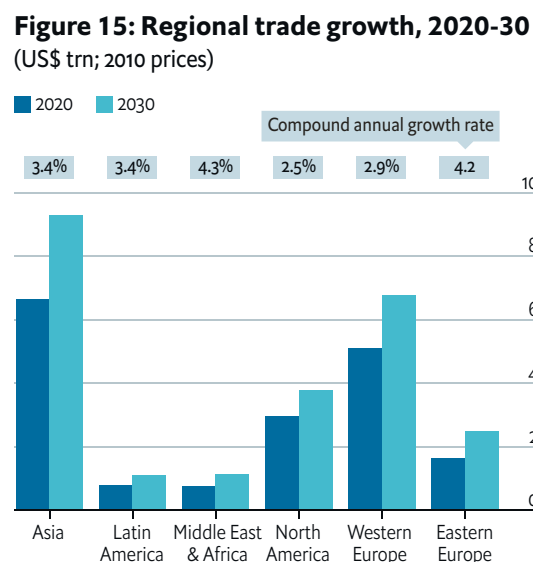
Source: Global Trade Analysis Project.

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Source: Global Trade Analysis Project.



The scenarios are built on moderately pessimistic assumptions compared with the baseline forecast. For example, in *full decoupling*, additional tariffs of 100 percentage points are applied to all bilateral trade. While we do not believe that this is the most likely outcome in US–China relations, we recognise that this scenario is not out of the question. (There is historic precedent for the US to impose such measures on its trade partners, and terms such as “decoupling” are starting to enter daily usage.) However, it should be noted that our scenarios do not represent an apocalyptic, worst-case outcome. For instance, we do not assume that countries that are not party to the trade confrontation will take steps to ward off the negative consequences of trade diversion.

Baseline growth forecasts for the next ten years largely resemble the previous decade, particularly when aggregated by region (see Figure 14). Asia’s fast rate of growth will continue to moderate, and the Middle East and Africa will overtake Asia as the world’s fastest growing region by 2029. The favourable demographics of Sub-Saharan African economies will largely drive this region’s rapid growth. After a year of catch-up growth in 2021, the advanced economies of North America and Europe will revert to a plodding pace for the remainder of the decade.

The scenario forecasts represent three alternative pathways to 2030:

- **Full decoupling:** Rising geopolitical tensions culminate in deliberate trade decoupling between China and the Five Eyes countries: Australia, Canada, New Zealand, the UK and the US. Tariffs of 100% are applied on all goods and services, except in strategically important sectors (pharmaceuticals; ferrous metals; metal products; computer, electronic and optical products; utilities; and communication) where the countries institute total embargos.
- **Local necessities:** Trade blocs and large countries adopt protection measures in an attempt to ensure domestic supply and boost self-sufficiency in essential goods, including food and medicine. Those implementing tariffs to protect domestic industry, as well as export taxes to encourage stockpiling,

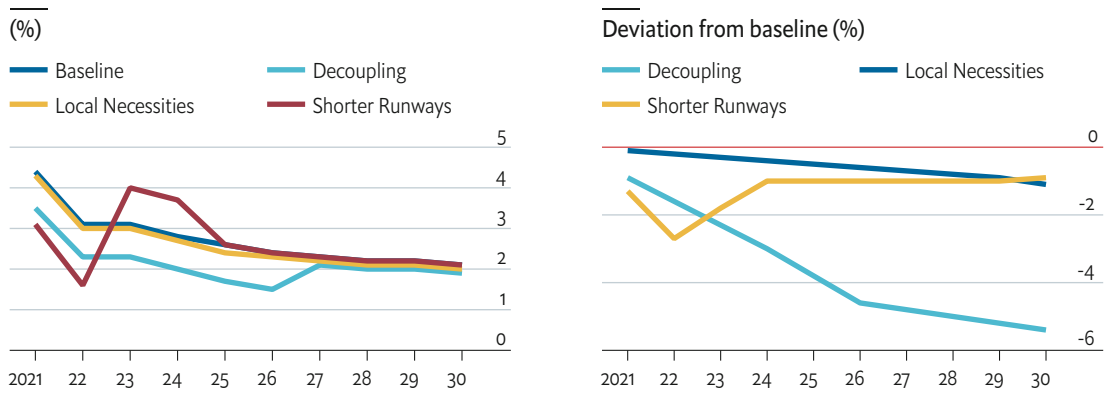
# THE COST OF DE-GLOBALISING WORLD TRADE

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include the US, Mexico and Canada (under the USMCA agreement); the EU; the Mercosur countries; China; India; Japan; and South Korea.<sup>32</sup>

- **Shorter runways:** Covid-19's disruptive impact on supply chains leads to higher trade costs across all countries. More complex supply chains that are spread over multiple countries face greater disruption.

**Figure 16: Scenario impacts on global GDP, 2021-30**  
(alternative scenarios versus baseline)



Source: Global Trade Analysis Project.

### The GTAP model

The Global Trade Analysis Project (GTAP) model is a Computable General Equilibrium model used in this study to generate the scenario outputs for world trade and GDP. General equilibrium models are among the most rigorous models used by economists, as they capture highly complex interactions and effects between countries, sectors, consumers and firms. The model is widely

acknowledged by trade authorities—it has been described as the “de facto standard and starting point for nearly all economy-wide analyses of global trade issues”.<sup>33</sup>

A full description of the model can be found on the GTAP website: [www.gtap.agecon.purdue.edu/](http://www.gtap.agecon.purdue.edu/).

These scenarios were developed from the EIU's Risk Briefing. More detail on the construction of the scenario shocks is provided in the following sections and in the annex.

## Scenario 1: *Full decoupling*

The US has sent conflicting messages regarding the ultimate objective of its trade policy with China. Robert Lighthizer, the outgoing US trade representative, acknowledged that “full decoupling”, presumably referring to a complete cessation of bilateral trade and investment, was unrealistic, despite his boss’s insistence that it remained an option on the table.

Supply chains tend to be sticky, especially in areas like ICT manufacturing (the largest component of US–China trade; see Figure 19), where scale and cluster effects matter. Plant investment decisions are also typically made with a longer time horizon than the US presidency’s four-year term. Yet observers should not be lulled into a false sense of security by the apparent resilience of trade flows. A large chunk of China’s exports to the US is accounted for by overseas multinationals, and foreign direct investment in China by Western companies has slowed. Once a few large companies start to move, the domino effect can be sudden.

It is unclear what the incoming president, Joe Biden, has in store for China, but support for a more hawkish China policy in the US spans both sides of the aisle. Both Mr Biden and Mr Trump engaged in displays of toughness over China during the US presidential campaign. The 2020 Democratic party platform states that “if the United States does not work with its allies and partners to shape the terms of global trade, China will shape them for us—and American working families and the middle class will pay the price.”

**Figure 17: Shocks arising from the full decoupling scenario**

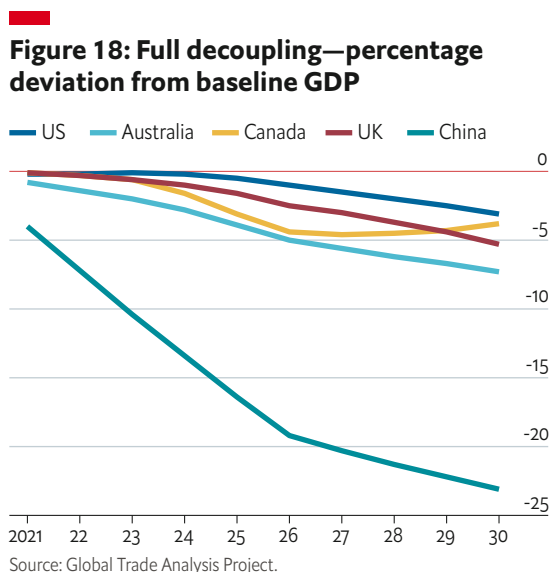
Pharmaceuticals	China imposes an effective embargo on Five Eyes countries; Five Eyes countries impose an effective embargo on China
Ferrous metals	
Metal products	
ICT	
Utilities	
Communication	China imposes a 100-percentage-point increase in tariffs on Five Eyes countries; Five Eyes countries each impose a 100-percentage-point increase in tariffs on China
All other goods and services	

In this scenario, the Five Eyes countries levy 100-percentage-point increases in tariff duties on all Chinese goods and services.<sup>35</sup> For technology and national security-related sectors, a full embargo is implemented. These sectors include ICT and electrical equipment, pharmaceuticals, ferrous metals and metal products, utilities, and communications. China reciprocates against each of the Five Eyes countries. The scenario shocks are phased in through 2022, with the full tariffs and embargoes in effect from January 1st 2023.

Such a shock may seem dramatic in the light of global tariff rates reaching historic lows in the past decade. However, there is a precedent for both 100% tariffs and embargoes. The US levied 100% tariffs against a wide variety of Japanese goods in 1987, and against a more narrowly defined list of luxury cars in 1995. In both instances, US administrations—from different political parties—imposed steep tariffs on an ally at a time when liberal trade policy was fashionable. The possibility that the US may do the same or worse to a strategic rival in today’s anti-globalist environment should not be dismissed.

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economy the size of Japan every year for the next decade. China suffers the most in this scenario, with 2021-30 aggregate GDP 16.5% lower than in the baseline forecast—the equivalent of shaving 2.7 percentage points from GDP growth each year in the next decade. Five Eyes countries with high export dependence on China are the next biggest losers. Aggregated over the 2021-30 forecast period, Australia loses 4.3% of GDP relative to the baseline forecast, as its exports to China collapse to 34.6% of baseline exports, a large portion of which are materials. Canada loses 2.8% of baseline GDP over 2021-30. The US experiences a cumulative loss of 1.2%, which amounts to US\$2.8trn (see figures 20 and 21).

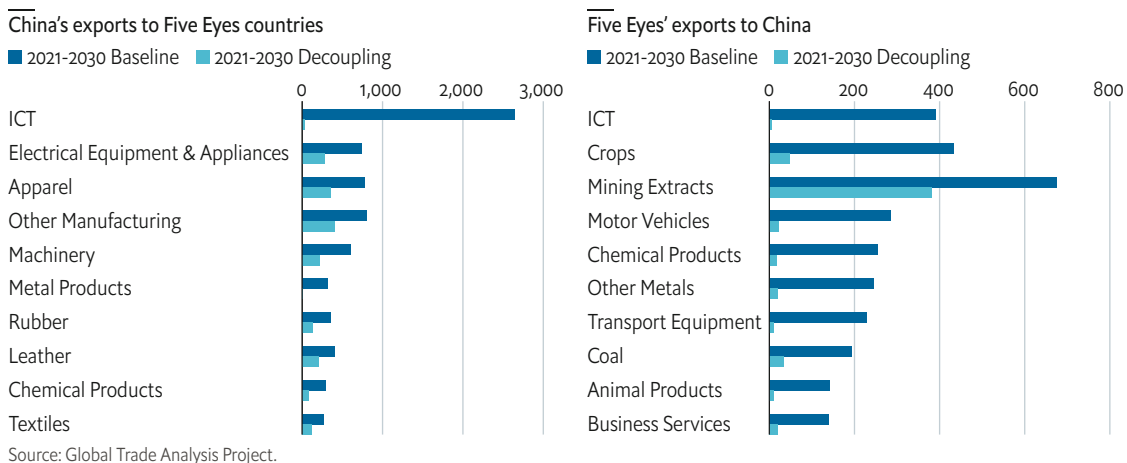
### Direct impact on China and the Five Eyes countries

The stakes in this scenario are high, owing to the sheer volume of trade that exists between the world's two largest economies. Total bilateral trade in goods between China and Five Eyes countries amounted to US\$879bn in 2019.<sup>36</sup> The tariffs in this scenario nearly wipe out all of that trade, reducing bilateral trade flows to 10.2% of 2020 levels by 2030. The impact on global supply chains would create economic damage far beyond just the value of trade lost.

The cumulative loss to GDP relative to the 2021-30 baseline forecast amounts to US\$52.8trn dollars in 2020 prices. This is equivalent to losing an

**The cumulative loss to GDP relative to the baseline forecast from 2021-30 amounts to US\$52.8trn dollars in 2020 prices. This is equivalent to losing an economy the size of Japan every year for the next decade.**

**Figure 19: China–Five Eyes trade impact on top ten sectors**  
(US\$ bn, 2010 prices)



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Putting these numbers into perspective, the GDP loss for an average Chinese household amounts to US\$6,632 per year for the 2021-30 period. Australian households suffer the largest loss (US\$8,636) in absolute terms (see figures 20 and 21). While the US may seem to do better based on headline growth, the impact translates to a loss of US\$2,008 per household (see Figure 21). GDP does not necessarily equate to household income, but it can be a close approximation.

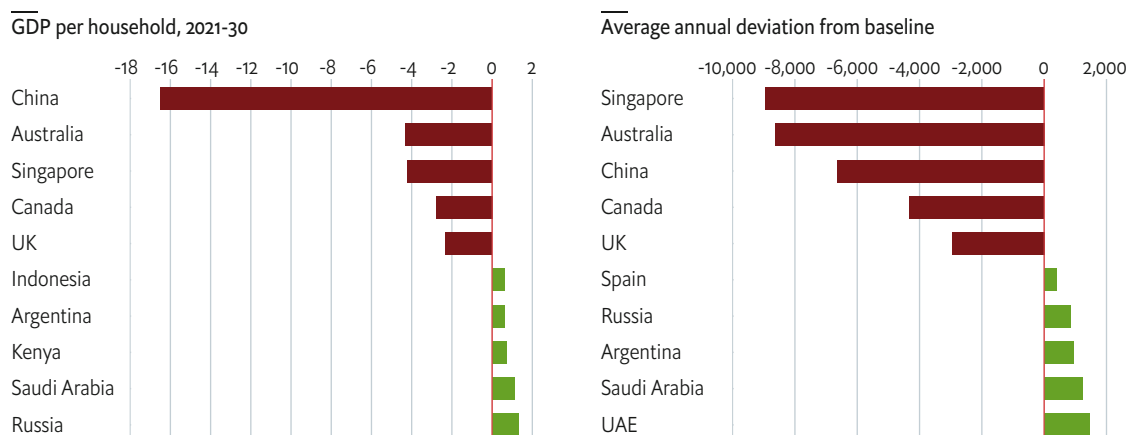
### Global dislocation

Given the aggressive trade barriers introduced into the model, the destructive impact of *full decoupling* on trade between China and the Five Eyes countries is not surprising. What is less expected, perhaps, is the negative impact on global supply chains, potential GDP growth and trade with other countries.

Overall, the disruption to global supply chains means that virtually every country loses out. For example, most countries in the world import production inputs from China and the Five Eyes countries, which in turn import production inputs from each other. This means, for example, that if China cannot import metal organic chemical vapour deposition (MOCVD) reactors from the US, it cannot produce light-emitting diodes (LEDs), which means that carmakers in Germany cannot make cars until new car light suppliers are found.

**Figure 20: Full decoupling—top five winners and losers**

(Cumulative % deviation from baseline GDP, 2021-30)



Source: Global Trade Analysis Project.

The dynamics in the model suggest that the destruction would last until the second half of the decade, after which the damage would moderate but persist relative to the baseline forecast (see Figure 18). However, this would require considerable new investment in a world where savings (and hence capital) will be highly constrained by the economic devastation wrought by the covid-19 pandemic.

In a milder scenario, one would expect more countries to benefit from trade diversion. For example, Mexico would gain from US tariffs on China, as it essentially competes with China in manufacturing goods for the US market. However, the disruption is so severe in this scenario that even China's competitors lose—Mexico cannot produce for the US market if China is unable to produce the inputs that its manufacturers need.

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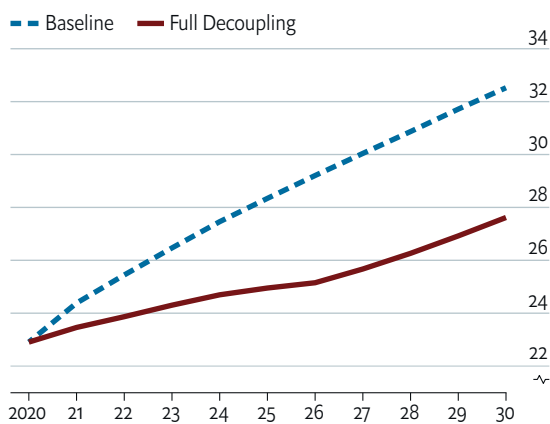
## ECONOMIC SCENARIOS FOR THE WORLD'S TURN INWARDS

**Figure 21: Full decoupling results**

Country	GDP per household (2020 US\$, 2021-30 cumulative)	GDP deviation from baseline (% , 2021-30 cumulative)	GDP CAGR (baseline, 2021-30 %)	GDP CAGR (full decoupling, 2021-30 %)
Australia	-8636	-4.3%	1.9%	1.1%
China	-6632	-16.5%	4.2%	1.7%
Canada	-4317	-2.8%	2.0%	1.6%
UK	-2950	-2.3%	1.6%	1.0%
US	-2008	-1.2%	2.1%	1.7%
South Korea	-762	-0.9%	2.1%	2.0%
Germany	-337	-0.3%	1.6%	1.7%
France	-264	-0.3%	1.6%	1.7%
Italy	-181	-0.2%	0.9%	1.1%
South Africa	-4	0.0%	3.8%	4.0%
Mexico	+5	0.0%	2.7%	2.6%
Brazil	+60	0.1%	1.8%	1.9%
India	+60	0.3%	5.3%	5.4%
Indonesia	+185	0.6%	4.7%	4.9%
Turkey	+223	0.2%	3.5%	3.6%
Japan	+271	0.2%	1.0%	1.2%
Russia	+862	1.3%	1.7%	2.1%
Argentina	+933	0.1%	2.7%	2.9%
Saudi Arabia	+1250	1.1%	2.1%	2.4%

Source: Global Trade Analysis Project.

**Figure 22: Global exports, full decoupling versus baseline**  
(US\$ trn, 2010 prices)



Source: Global Trade Analysis Project.

What mild benefits do accrue in *full decoupling* largely go to energy exporters, who are insulated from the chaos created between China and the Five Eyes countries. For example, Saudi Arabia essentially exports oil and imports everything else that it needs. While global demand for Saudi Arabian oil is diminished by the economic damage of full decoupling, the impact is more than offset by collapsing prices in virtually all other sectors, which dramatically lower living and production costs for Saudis.

The shock to prices in China produces an interesting side effect in the results. China's exports become increasingly competitive, to such an extent that it initially gains substantial global export market share, largely at the expense of US



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exports. This trend continues until the middle of the decade and then begins to reverse as production capacity increases in other countries. Towards the end of the decade, China’s increasing isolation from global supply chains eventually results in its export market share falling below the baseline forecast (see Figure 23).

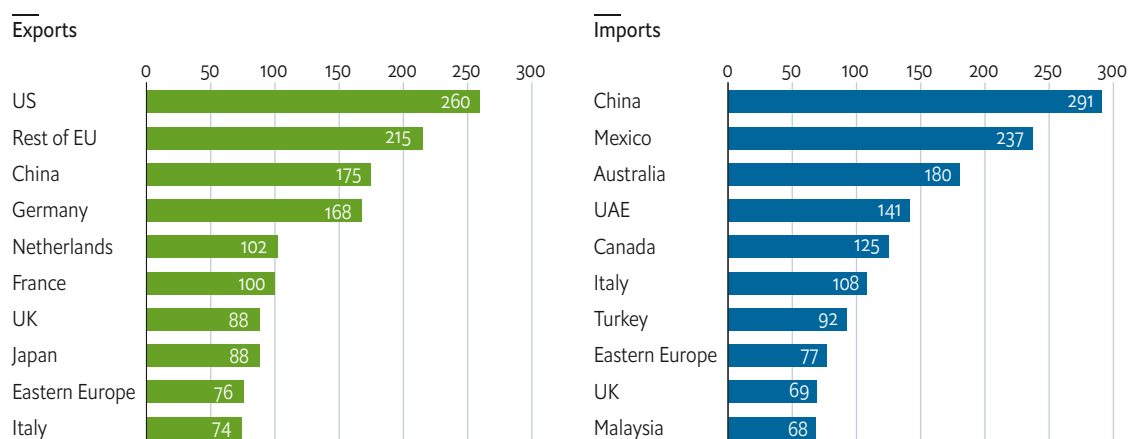
The modelled results from an aggressive decoupling scenario are clear: the impact on the global economy would be highly disruptive, and it would take the better part of a decade for supply chains to find a new equilibrium. Even by 2030, all but a handful of countries would still be worse off.

## Scenario 2: *Local necessities*

A seemingly universal quirk emerged in the early days of the covid-19 pandemic: a run on toilet paper. Concerned households believed that the pandemic's impact on supply chains would be so disruptive that they would not be able to purchase basic goods. Despite assurances from governments and suppliers that there were ample amounts of toilet paper, the panic became a self-fulfilling prophecy as retailers struggled to keep shelves stocked.

Supply chains' demonstrated resilience during the pandemic has largely precluded new rounds of panic buying, but a whole generation raised in peaceful prosperity—in advanced economies, in particular—has now experienced empty shelves for the first time in their lives. Nobody wants to experience this again, and the psychological impact on the public will be reflected in their governments' actions.

**Figure 24: Top exporters and importers of food and medicine in 2020**  
 (US\$ bn, 2010 prices)



Source: Global Trade Analysis Project.

Governments are already suggesting that the experience has changed their perspective on stockpiling essential goods. Mr Lighthizer, the US trade representative, has opposed tariff relief for medical goods, including personal protective equipment (PPE) and pharmaceutical products. At a Senate Finance Committee hearing in June, Mr Lighthizer testified: "I would be far more in favour of increasing tariffs on the things that we need as a part of an overall plan to make sure that the next time [there is a public health crisis] we have domestic manufacturing capability in these areas."<sup>37</sup>

In this scenario, capable countries take measures to mitigate supply-chain risk. Tariffs and export taxes on primary essential goods—defined as food, beverages and pharmaceuticals—both increase by 30 percentage points. Tariffs and export taxes on secondary essential goods—defined as ICT products, transport equipment and apparel—increase by 10 percentage points. These levels were selected based on historical examples of protectionism in the name of self-sufficiency in essential goods. The tariff ranges were selected based on status quo and worst-case historical examples from each sector. For example, Vietnam protected its steel industry with anti-dumping tariffs of 36% as recently as 2017; India has been strongly protectionist with regard to its pharmaceutical sector, with average tariff levels at 35%;

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and Brazil's manufacturing industry benefited from both a 45% protective tariff and 45% export subsidy in 1967.

**Figure 25: Shocks arising from the local necessities scenario**

**Primary essential goods**

Crops and by-products	
Live animals, meat and by-products	30-percentage-point increase in both export tax and import tariff, except within trade bloc
Beverages and tobacco products	
Pharmaceuticals	

**Secondary essential goods**

Metal products	
ICT	10-percentage-point increase in both export tax and import tariff, except within trade bloc
Motor vehicles and parts	

Not all countries implement these barriers; only markets with a combination of access to technology, production diversification and scale can attempt to localise production in these sectors. Where trade blocs are well established, countries may build production within the country, but they may choose to source supplies from within their trade bloc rather than from outside it.

The countries and trade blocs that attempt this protectionism are the USMCA, the EU, Mercosur, China, India, Japan and South Korea. For the trade blocs, tariffs and export taxes only apply to goods imported from or exported to markets outside of the bloc.

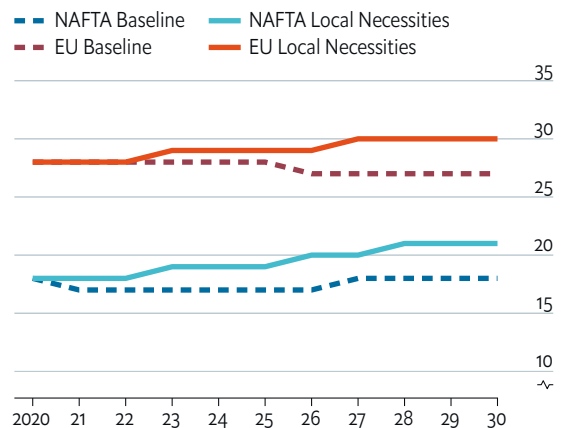
### “Nearshoring”

The cumulative loss to global GDP in 2021-30 amounts to US\$8.4trn at 2020 prices, equivalent to a 0.6% loss relative to the baseline forecast. Trade-dependent economies that import and export large quantities of goods from the affected sectors suffer the most. In terms of GDP loss, South Korea (-2.1%) and China (1.8%) are hit the hardest. Economies with a relatively low dependence on trade and limited exposure to trade in the affected sectors escape relatively unscathed. For example, the impact on India is negligible.

Since trade measures are only applied to essential goods and services, the impact of this scenario is smaller than in *full decoupling*. Moreover, for most of the participating countries, trade measures are applied at the regional level rather than the country level. This means that consumers in these markets have the option of switching to “nearby” export markets and supply chains—so-called nearshoring—instead of “far away” ones, reducing the losses from trade destruction.

A distinguishing factor in this scenario is the boost in total intra-regional trade at the expense of

**Figure 26: Intra-regional trade as a share of total regional trade**



Source: Global Trade Analysis Project.

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inter-regional trade (see Figure 26). Intra-regional trade's share of global trade in the USMCA, the EU and Mercosur rises to 25.6% by the end of the decade—3.5 percentage points above the baseline forecast. Within the USMCA and the EU, intra-regional trade is respectively 13% and 10.8% higher. Bilateral trade between Argentina and Brazil, Mercosur's two largest markets by far, grows by 55.9% relative to the baseline forecast. The gains are offset by the decline in inter-regional trade. For the US, exports to the EU are 18.9% lower in 2030 relative to the baseline forecast, while imports from the EU are 20.9% lower. The effect is even more dramatic for essential goods. EU crop exports to the US in 2030 are 86.6% lower than the baseline forecast. Canada's and Mexico's trade with Europe follows a similar trend. There is a measurable cost associated with these shifts.

### The dream of self-sufficiency

Although most advanced economies have long since abandoned the pursuit of self-sufficiency, the fear of supply shortages during the pandemic has put the issue back on the agenda. Globally, the degree of self-sufficiency is reasonably high, with 79% of the value of all goods consumed in the world produced locally.<sup>38</sup>

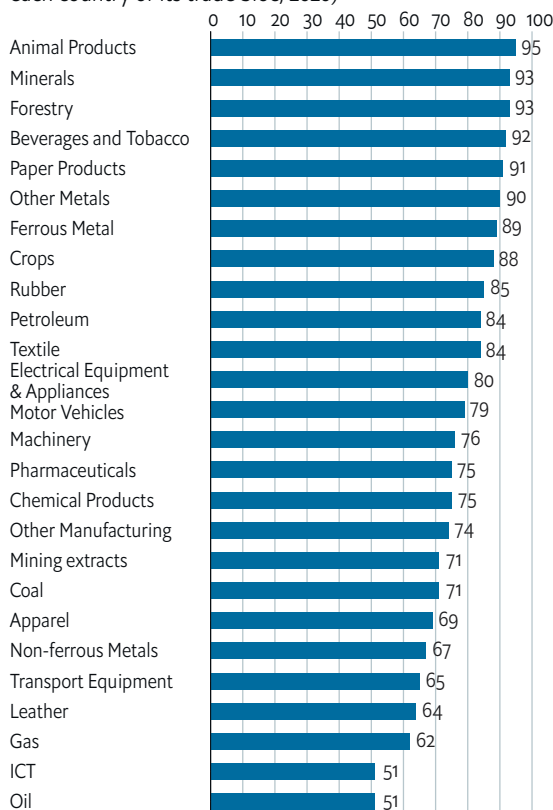
However, there is considerable variation in the degree of self-sufficiency across countries and sectors. In general, farm and forestry products tend to see the most localised production, while manufactured

wares and energy tend to be produced in foreign countries (see Figure 27). In terms of essential goods, food is largely produced locally, while pharmaceuticals are more likely to be imported.

Generally, advanced economies tend to have

**Figure 27: Global self-sufficiency ratios by sector**

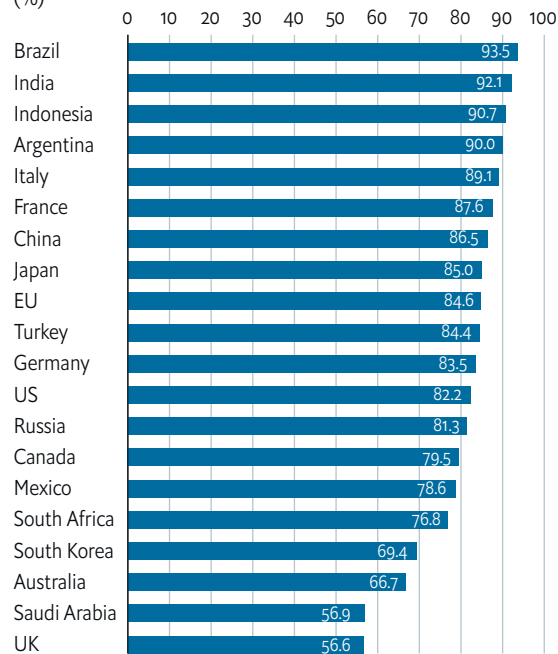
(% of intermediate and final consumption produced within each country or its trade bloc, 2020)



Source: Global Trade Analysis Project.

**Figure 28: Self-sufficiency ratios for essential goods, 2020**

(%)



Source: Global Trade Analysis Project.

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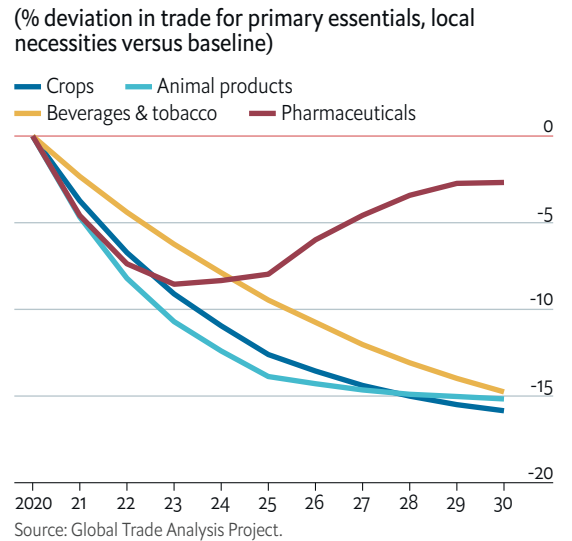
lower rates of self-sufficiency. This is partly because these countries tend to pursue more open trade policies and have chosen to outsource the production of less sophisticated products, such as apparel, to developing countries. It is also because much of the world's natural resources are not located within these countries.

In terms of primary essential goods (food and medicine), the global picture is similar. Of the world's major economies, Germany and Canada show the highest import dependence, while India and China show the lowest. The most important factor behind this variation is pharmaceuticals, of which China is the world's largest exporter.

In this scenario, tariffs and export taxes on essential goods lead to marked reductions in trade in these products (see Figure 29). Notably, trade in food, beverage and tobacco products falls precipitously and continues to do so throughout the forecast period. Trade in medicines, on the other hand, experiences a rebound after 2023. This is because production factors for medicine are essentially mobile: a pharmaceutical plant can be relocated, but a farm cannot. Supply chains can therefore adjust and recover over time after the initial shock.

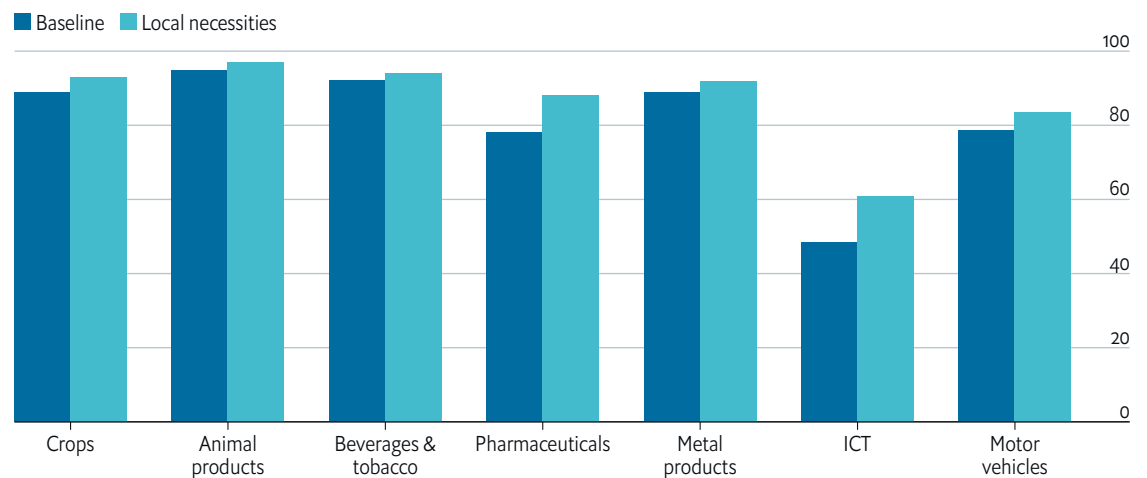
The lack of mobility in food production means that it is unlikely that governments will be able to do much to increase local production. Despite sizeable import and export shocks introduced into the model, the self-sufficiency rate for food categories only increases modestly (see Figure 30). This reflects the experience of many countries, such as China, which have unsuccessfully pursued self-sufficiency in

**Figure 29: Deviation in trade for primary essentials**



**Figure 30: Global self-sufficiency ratios in essential goods<sup>39</sup>**

(local necessities versus baseline, 2030)



Source: Global Trade Analysis Project.

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food. The economic costs end up outweighing the benefits.

There is, however, some potential to increase localisation of production in pharmaceuticals. In this scenario, the 30-percentage-point increase in both import tariffs and export taxes brings the level of regional/national self-sufficiency up from 75% to 88%. The US self-sufficiency rate for pharmaceuticals moves up from 58% in 2020 to 83% in 2030 under these protections—over 27 percentage points higher than in the baseline forecast. Canada’s self-sufficiency rate improves from 47.5% in 2020 to 83.5% in 2030—over 40 percentage points above the baseline forecast. Although this may sound appealing for governments whose countries have experienced shortages of key medicines during the covid-19 pandemic, they may wish to ask themselves if the costs associated with disrupting supply chains are worth it.

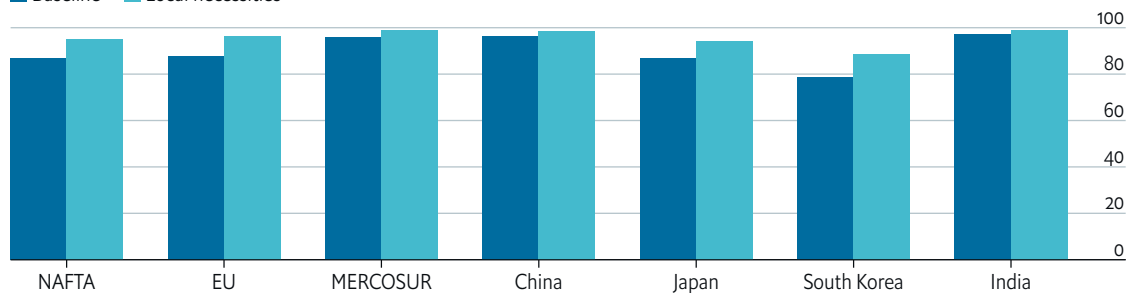
While [self-sufficiency] may sound appealing for governments whose countries have experienced shortages of key medicines during the pandemic, they may wish to ask themselves if the cost associated with disrupting supply chains is worth it.

A different way of thinking about self-sufficiency is to shift from a national to a regional perspective (see Figure 31). While it may be challenging for every country within, say, the EU to produce its own essential goods, it may be easier to do this for the bloc as a whole. For example, Malta may not have a large enough economy to make its own medicines, but it may feel more secure importing them from France than from China, as there would be a lower risk of supply shortages through policy interventions or transport disruption.

**Figure 31: Self-sufficiency ratios, local necessities versus baseline, 2030**

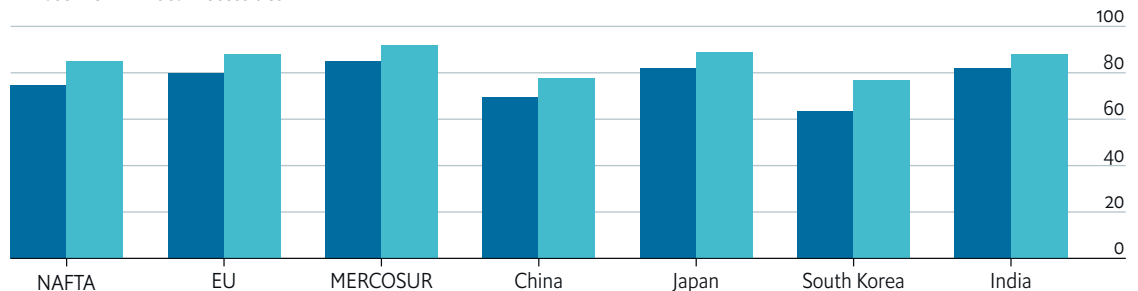
**Primary essentials: Food and medicine**

■ Baseline ■ Local necessities



**Secondary essentials: Cars, electronics and steel**

■ Baseline ■ Local necessities



Source: Global Trade Analysis Project.

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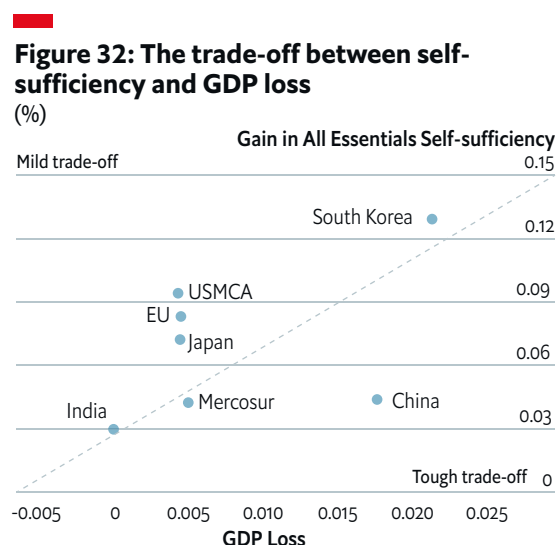
The scenario shocks adopt this regional perspective. The additional tariffs and export taxes are applied at the regional level for the USMCA, the EU and Mercosur (proxied by Brazil and Argentina), meaning that the measures only affect goods entering and leaving the region, rather than individual countries. Mexico thus blocks French goods, but not Canadian ones.

Regional self-sufficiency has a greater chance of success than national self-sufficiency, as countries are drawing from a larger and more diverse pool of resources. For this reason, the concept of “nearshoring” rather than “onshoring” has gained traction during the pandemic. While all countries face trade-offs when attempting to localise production, the three trade blocs in the model are able to do so more effectively and with less efficiency or output loss compared with countries without such blocs. China achieves the least success, largely because it is already the main source of production for itself and other countries, and stands to lose the most.

### The price of security

Naturally, there is a price to pay for security. Overall, the increased self-sufficiency described in this scenario leads to a cumulative loss of 0.7% of baseline GDP for implementing countries in the 2021-30 period. Countries that do not implement the tariffs perform better relative to the baseline forecast, with output just 0.2% lower.

Countries that engage in more trade lose out the most in this scenario. South Korea (a highly open economy) and China (which supplies much of the world with essential goods) suffer respective cumulative losses to output of 2.1% and 1.8% over the 2021-30 period. For South Korea, the measures might be considered “worth it”, given that the country increases its self-sufficiency ratio for primary and secondary goods by over 10 percentage points. China’s self-sufficiency rate is already extremely high, and it therefore has relatively little to gain (see Figure 32).



For the other sectors—including food, metals and computer products—there is scant evidence that tariffs and export taxes would materially contribute to self-sufficiency, relative to the baseline forecast (in which these barriers are not implemented). Given the costs associated with each, the economic logic behind such a strategy would appear to be faulty. However, economics is just one part of the political calculus, and policymakers may fairly respond that one cannot put a price on a sense of security.

### **Scenario 3: *Shorter runways***

For a number of decades, just-in-time inventory management has featured prominently in global supply-chain strategy. Indeed, recognising its impact on stability in company financials, it was listed as one of the factors contributing to the Great Moderation—a term used by macroeconomists to describe the decline in volatility in the business cycle since the 1980s.

Effective supply-chain planning allowed production networks to fan out across the globe, leveraging the comparative advantage of different countries. As noted by *The Economist*, “a humble cup of coffee requires 29 firms to collaborate across 18 countries, according to one estimate.”<sup>40</sup> The precondition for such lean and geographically dispersed supply chains is that goods (and personnel) are able to make it from one factory to the next in a predictable timeframe. Covid-19 has thrown a wrench into this predictability by disrupting transport networks, especially international routes.

In the *shorter runways* scenario, this disruption is simulated by introducing added costs to trade across all countries and sectors. Not all sectors are affected equally. Differentiation between high-, medium- and low-risk sectors is achieved using the Grubel-Lloyd index, which measures the extent of intra-industry trade by taking the absolute difference in exports and imports over total trade for a particular good or service. In other words, industries such as electronics, where there is a high degree of supply-chain complexity, are more likely to suffer from disruption than industries such as oil, where production tends to be concentrated in relatively few locations.

Grubel-Lloyd index scores can show how integrated a national economy is with international trade partners on a scale of 0-1, as well as demonstrating supply-chain diffusion for specific sectors. Europe is generally the most integrated region, owing to the EU's common market, as well as the relatively large contributions to GDP of sectors defined by diffuse supply chains. The economies of smaller European states are particularly international: Europe excluding France, Poland, the Netherlands, Spain, Germany and Italy has a “national” Grubel-Lloyd index score of 0.86, the highest of any region. Economies that rely on the export of natural resources are typically at the other end. By this metric, the three least integrated economies in the model are Australia (0.37), Russia (0.32) and Saudi Arabia (0.14).

#### **Measuring supply-chain transport disruption risk**

Grubel-Lloyd index scores break down into sector–country pairings, yielding highly granular insight into the integration of international commerce. Repeating this calculation for all sector–country pairs gives a measure of how much intra-industry trade—a good proxy for supply-chain complexity—occurs within each sector in each country. We then classify the top third of sector–country pairs as high risk and the bottom third as low risk.

In this scenario, the cost of trade is increased

by assigning 15%, 10% and 5% tariff equivalents to high-, medium- and low-risk sectors, respectively, based on their degree of supply chain diffusion. Given the unprecedented disruption caused by covid-19, it is extremely challenging to measure the exact cost of transport disruptions at this juncture. However, empirical studies of the business cost of supply-chain disruptions (focusing on natural disasters, for instance) suggest that the ranges for the tariff equivalents are roughly appropriate.<sup>41</sup>



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In terms of consumer products, one of the most high-profile casualties of covid-19 thus far has been the iPhone 12 (ICT and electronics has a sector-specific Grubel-Lloyd score of 0.77). In July 2020 Apple announced that its flagship iPhone launch was being postponed due to pandemic-related disruptions to production. The iPhone is produced in over 40 countries, and disruption in any one of these can potentially affect final production deadlines, providing a useful illustration of how more complex supply chains are at greater risk from covid-19.

#### **The covid-19 threat to integrated economies**

While disruptions may be impossible to predict, the Grubel-Lloyd index quantifies supply-chain diffusion and offers insight into risk. The pandemic has exposed how a disruption in one place can cause cascading problems in others. Europe is the most economically integrated region, with Grubel-Lloyd index scores ranging from 0.75 to 0.86.

March 2020 was a brutal month for manufacturing in Europe. Italy's manufacturing survey reported the largest monthly drop since records began in 1997, a dire albeit not surprising turn of events, given the overwhelmed healthcare system in Lombardy, the country's largest regional economy by a considerable margin. Industrial activity in Spain, France and Germany also declined at the fastest rate since at least 2012.<sup>42</sup> However, it

Declining demand, difficulties sourcing inputs and prohibitively expensive freight can be persistent challenges regardless of the local public health situation. Disruptions due to outbreaks and containment policies will continue at least through 2021, even if vaccines that are currently under development prove viable.

seems that the economic impacts of covid-19 may have initially spread more quickly than the virus itself. Poland's factories were closing as early as February owing to the shutdown in China, and manufacturers who were dependent on inputs from China had to lay off workers as parts either did not arrive or were delayed.<sup>43</sup> A quarter of Poland's trade is with Germany, which means that the latter likely felt the economic symptoms of covid-19 weeks before the public health situation deteriorated.

The relationship between supply-chain diffusion and covid-19 disruption is even more obvious outside of Europe. Singapore (index score 0.78) saw its economy contract by 13.5% on an annualised basis in the second quarter of 2020, despite relatively low circulation of the virus. Australia (index score 0.37) was down by a comparatively mild 6.3%. Other countries with low Grubel-Lloyd index scores, such as Russia (0.32) and Saudi Arabia (0.32), seemed to be hit far worse by low oil prices than more sophisticated supply-chain disruption. There is a moderate negative correlation (-0.32) between Grubel-Lloyd index scores and national GDP in the second quarter of 2020, when the damage to supply chains was most severe.

This country-level analysis is consistent with the idea that sectors with more diffuse supply chains are inherently riskier than sectors with short supply chains. Chemicals manufacturing is the fourth most integrated sector in the model, with a Grubel-Lloyd index score of 0.81. Tata Chemicals, one of India's largest chemicals manufacturers, was forced to close factories indefinitely in March, owing to a national lockdown. Such closures create supply problems for all products downstream and hurt upstream producers of inputs, with the impact felt in many countries. By contrast, while raw materials like oil (index score of 0.12) are sensitive to price effects, there is nobody upstream, and downstream buyers usually transform materials

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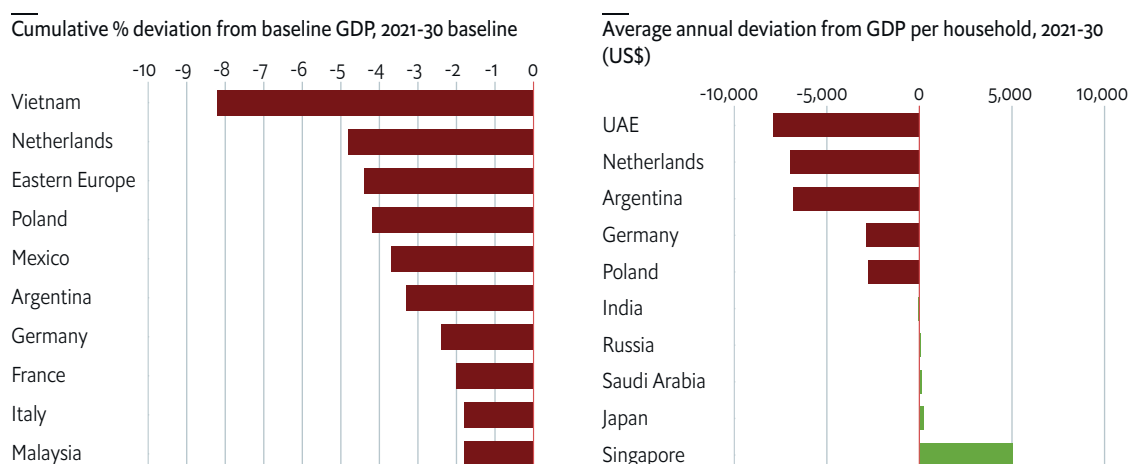
### ECONOMIC SCENARIOS FOR THE WORLD'S TURN INWARDS

into a different product category. The product is also highly substitutable; should disruptions occur in one country, global prices may rise, but oil will still be accessible from other sources.

The economic impact of the pandemic has generally been milder in East and Southeast Asia, with the biggest disruptions in Europe, South Asia and Latin America, consistent with local containment (or lack thereof) of the virus. However, even in countries that have managed to keep cases and deaths low, such as China, production operations are still below 2019 capacity. Over 30% of companies surveyed by the American Chamber of Commerce in Shanghai reported at least a 10% decline in capacity utilisation, with roughly one in 11 companies reporting a decline greater than 30%. This demonstrates that declining demand, difficulties sourcing inputs and prohibitively expensive freight can be persistent challenges regardless of the local public health situation. Disruptions due to outbreaks and containment policies will continue at least through 2021, even if vaccines that are currently under development prove viable.

The total hit to global GDP in this scenario is US\$17.2trn (at 2020 prices) over the decade. Most of that damage is concentrated in 2021-22, when global trade loses US\$15trn relative to the baseline forecast. The greatest costs are associated with a high degree of economic dependence on integrated industries. The Netherlands and Mexico both experience negative impacts, which is not surprising, given their level of supply-chain integration. However, the biggest loser is Vietnam, a country with one of the lowest incidences of covid-19 in the world but a key player in the global manufacturing supply chain. Vietnam's output is 8.2% lower than the baseline forecast for 2021-30 (See Figure 33). Two other highly integrated economies, Poland and the UAE, round out the top five most affected countries.

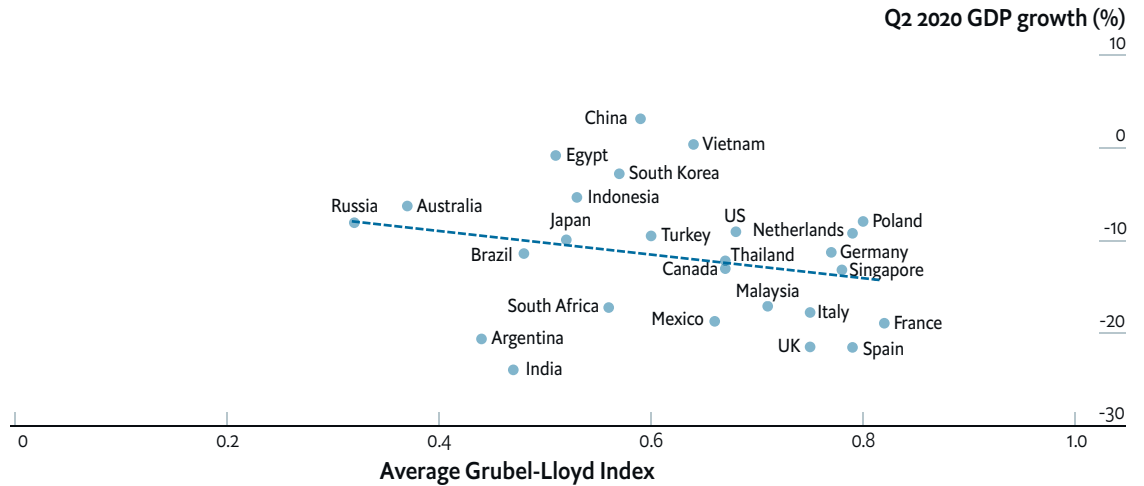
**Figure 33: Top five winners and losers in the shorter runways scenario**



Source: Global Trade Analysis Project.

These countries have disproportionately benefited from the era of diffuse supply chains. Vietnam has developed into a major manufacturing nation, despite having few resource endowments of its own. The Netherlands is the primary hub for the EU's international goods trade, and its Port of Rotterdam has been Europe's busiest cargo port for decades. Poland is in the middle of long supply chains for the manufacturing of machinery and transport equipment, with Germany alone accounting for over a quarter of its total trade, most of which is intra-industry. Mexico plays a similar role in its economic

**Figure 34: Intra-industry trade and economic growth during the early stages of the covid-19 pandemic**



Source: Global Trade Analysis Project.

partnership with the US. The UAE is a trans-shipment hub for a significant share of global trade. In an era of shorter supply chains, it is natural that these countries would suffer.

The usefulness of the Grubel-Lloyd index as a predictor of economic performance during the pandemic is illustrated in Figure 33. There is a negative correlation between GDP growth in the second quarter and the country average Grubel-Lloyd index, suggesting that global supply-chain integration has been detrimental to economic growth during the pandemic. Clearly, correlation is not causation, and a multitude of other factors affect economic growth, such as the severity of the pandemic. Nonetheless, the index proves to be a better predictor of economic growth than other indicators of economic openness, such as the trade share of GDP.

## Conclusion

**T**he three scenarios assessed in this report pose significant risks to global economic growth in 2021-30. These risks are concerning, given the likelihood of the underlying scenarios becoming reality, even if only to a partial extent. The model does not feature a composite scenario of all three of these pathways together. However, such a nightmare scenario is conceivable, and the consequences for global growth would be disastrous.

Scenario	Change in GDP relative to the baseline forecast	
	US\$ trn	%
Full decoupling	-52.8	-3.8%
Local necessities	-8.4	-0.6%
Shorter runways	-17.2	-1.2%

In the three scenarios, the global trading landscape will be remade in different ways. In *full decoupling*, the collateral damage to global supply chains is enormous. Nearly everyone loses; the only economies that escape relatively unscathed are those primarily based on the production and export of energy. Local necessities leads to a shift from inter-regional to intra-regional trade. The pursuit of economic security in essential goods brings trade-offs in terms of prosperity. For well-developed trade blocs, such as the EU and the USMCA, these trade-offs are less harsh than for economies that already supply the world with many of its essential supplies, such as China. In shorter runways, globalised supply chains are hardest hit, and open economies more closely integrated with global supply chains lose the most.

In short, the world trading system is on course to becoming less globalised and more regionalised. Further, a bifurcated supply chain landscape may emerge if present geopolitical trends continue—one built around China, the other centred on the US. Any re-alignment of supply chains will take time and capital, an adjustment process that will be prolonged by the pandemic. Capital, above all, will be in short supply as economies recover.

It is high time for a co-ordinated attempt to revive the multilateral trading system, starting with doubling down on efforts to reform the WTO. If the parties involved cannot agree on the future of the 25-year-old institution, they should agree on a way to disagree by allowing other countries to proceed at a higher speed of integration and by maintaining its status as an adjudicating body for trade disputes. Some advances in trade liberalisation have been made through regional trade deals, such as the CPTPP and the Regional Comprehensive Economic Partnership (comprised of ten Southeast Asian countries, in addition to South Korea, China, Australia, New Zealand and Japan), but these achieve little compared with multilateral trade agreements. The latter cover far more countries and provide a far more transparent legal and regulatory environment for businesses to work within.

There are reasons to remain optimistic about globalisation. The idea of free trade is an easy sell for most voters, the overwhelming majority of whom respond positively to the very notion, but are sceptical about the practical benefits. It is up to governments to do a better job of showcasing trade's benefits

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and ensure that those who lose out from trade receive adequate support. At the same time, the most disruptive force of globalisation over the past two decades—China's rise—looks to be stabilising as its economy matures and begins to consume more from the world.

Protectionism is looked upon as a quick fix, but there is little evidence that it brings back lost jobs and the spiral of retaliation that it tends to trigger leaves no party better off. The establishment of the world trading system is one of the crowning achievements of internationalism over the past century, helping countries not only to prosper but also to keep the peace. Allowing it to fade into irrelevance would herald a dark new era.

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