# Geopolitical Fragmentation of Trade

Aymeric Lachaux

- At a time of heightened geopolitical tensions, economic exchanges between nations are increasingly governed by a bloc-based approach. We are witnessing a reorganisation of trade between groups of geopolitically aligned countries, i.e. a geopolitical fragmentation of trade.

- According to our estimates covering a period preceding the second Trump administration, the fragmentation between blocs of military allies is more marked than between diplomatically aligned countries or countries maintaining close economic cooperation. This fragmentation began with the annexation of Crimea in 2014 and accelerated with Russia's invasion of Ukraine in 2022.

- Since 2010, the military allies of the United States have increased their imports from other US-allied countries by around 40%, while imports from Russia's military allies have decreased by 80% compared with trade between or with countries not belonging to either of these blocs (see Chart opposite).

- Fragmentation can stem from strategies that address legitimate concerns, such as reducing unwanted dependencies. However, trade fragmentation would be less economically efficient than the free allocation of resources.

- Similarly, reduced trade diversification could undermine the resilience of our economies. Lastly, fragmentation could hamper our ability to tackle global challenges such as the green transition and development.

Geopolitical bias of the United States' military allies (%)

Legend: —— With other countries allied with the United States   —— With countries allied with Russia
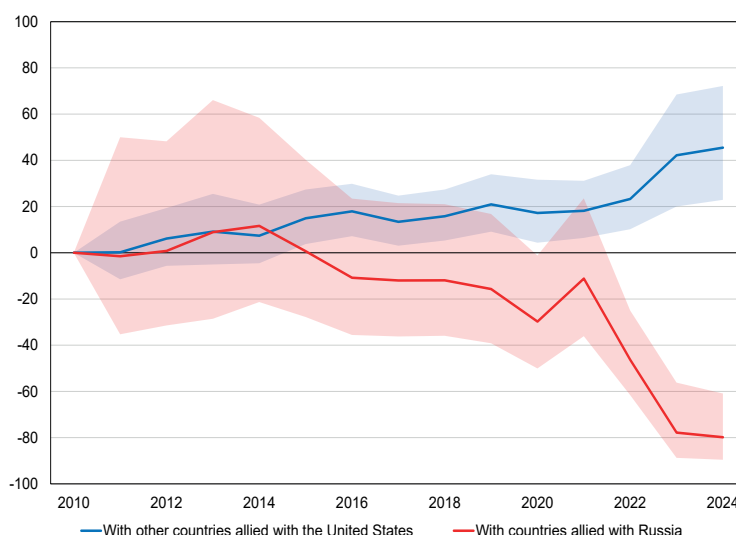
Source: UN Comtrade database, DG Trésor calculations.

How to read this Chart: Between 2010 and 2024, imports by countries militarily allied with the United States increased by around 40% from other US allies (blue curve) and decreased by 80% from countries militarily allied with Russia (red curve), compared ceteris paribus with trade between or with countries not belonging to either bloc. The shaded area surrounding the curve represents the 95% confidence interval. The United States' allies are the member countries of NATO and the EU, and the signatories to the Rio Pact and the ANZUS Treaty, plus Japan, South Korea and the Philippines. Russia's allies are Belarus, Kazakhstan, Kyrgyzstan, Tajikistan and Armenia.

1. The growing influence of geopolitics on international trade

Uncertainty is gaining ground in the international trade environment. Geopolitical tensions have been rising for several years now with the Russian invasion of Ukraine and Sino-American tensions over Taiwan. The World Trade Organization (WTO) is no longer able to resolve trade disagreements[1] and governments are intervening in global value chains in order to increase trade with more secure countries or reduce trade with those deemed less secure. These interventions can take the form of positive incentives, such as the trade agreement between New Zealand and the European Union (EU) signed in 2023, or deterrents, such as the sanctions imposed on Russia in 2014 and again in 2022. The United States has also sharply increased its tariffs, notably against China during President Donald Trump's first term, and later against all countries, albeit to varying degrees, since the start of his second term. Similarly, businesses are paying more attention to securing their trade relationships, while consumers may boycott certain countries.[2] These changes in the behaviour of public and private players could lead to trade fragmentation, i.e. a reorganisation of international trade between groups of geopolitically aligned countries ("blocs"). At a time when Trump's second term in office may well shake up geopolitical alliances, an econometric study has been conducted to determine the existence, before his return to power, of geopolitical fragmentation of trade according to various possible definitions of the blocs (see Box 1).

Analysis of the estimated coefficients shows that trade is increasingly marked by geopolitical bias, albeit to varying degrees depending on the bloc in question (see Chart 2). In particular, there is a high degree of fragmentation between blocs of militarily allied countries, compared with fragmentation between diplomatically aligned countries or countries maintaining geoeconomic cooperation.

More specifically, since Russia's annexation of Crimea in 2014 and again after its invasion of Ukraine in 2022, Western bloc countries have shown increasingly favourable geopolitical bias towards imports from their own bloc (blue curves in the left-hand graphs). This behaviour can be interpreted as friendshoring. For the Eastern bloc, bias in favour of imports from within the bloc only appears to have developed since the invasion of Ukraine in 2022 (blue curves in the right-hand graphs). However, both blocs show increasingly negative bias in their imports from the other bloc from 2014 onwards (red curves).

Box 1: Method used to estimate fragmentation

In order to identify a trend towards trade fragmentation between different geopolitical blocs, we use annual bilateral nominal import data for 90 countries between 2010 and 2024.[a] This data is aggregated and disseminated by the United Nations in the Comtrade database, which provides harmonised data over a broad time horizon for numerous countries. We use country-level data to reduce calculation complexity. While an analysis at product level would make it possible to consider relative changes in prices between partners or assess fragmentation by product, it would generate other methodological challenges related in particular to measuring trade.

This analysis differs from other similar studies as it involves testing different bloc compositions.[b] Countries are characterised by their membership of a geopolitical bloc, the composition of which may vary depending on the criteria used. Countries not belonging to the two main blocs are grouped together in a joint entity known as the "rest of the world".[c]

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a. As Russia has not published its data since 2022, we have chosen to reconstruct the import series for the entire period. Russia's imports between 2010 and 2024 are assumed to be equal to exports to Russia from the countries having published the relevant data, representing 79% of its total imports in 2021. The source of this data is the same as for imports. As export data is less reliable than import data, bias may exist, but we assume that it is constant over time and therefore does not distort the estimates.

b. J. Carluccio, G. Gaulier, G. Smagghue & S. Stumpner (2025), "Trade War and Geoeconomic Fragmentation", *Eco Notepad* (blog post 389), Banque de France. G. Gopinath, P. O. Gourinchas, A. F. Presbitero & P. Topalova (2025), "Changing Global Linkages: A New Cold War?", *Journal of International Economics*, 153, 104042.

c. For estimation purposes, the blocs are fixed in time (2024 baseline) and geopolitical bias is estimated for each bloc as a whole and not for each country. It is therefore not possible to identify "defections" from or "accessions" to blocs over time.

Criterion	Western bloc	Eastern bloc
Geoeconomic cooperation	G7+: G7 members and countries applying sanctions against Russia[d]	BRICS+: BRICS member countries, Hong Kong and Macao[e]
Diplomatic positioning	Supporters of Ukraine: countries that voted in favour of Russia's suspension from the UN Human Rights Council on 7 April 2022[f]	Supporters of Russia: countries that voted against Russia's suspension from the UN Human Rights Council on 7 April 2022, Hong Kong and Macao
Military alliance	US allies: countries that have a mutual defence pact with the United States[g] and EU member countries	Russia's allies: countries that have a mutual defence pact with Russia[h]

Chart 1: Geopolitical blocs

- G7+
- BRICS+
- Supporters of Ukraine
- Supporters of Russia
- US allies
- Russian allies
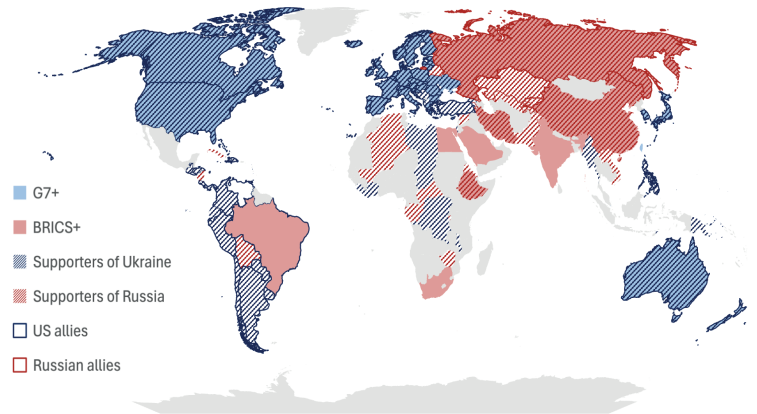
Source: DG Trésor.

The following equation is used to estimate geopolitical bias:

$$Imports_{ijt} = \exp\left[\sum_t \beta_t \times Bloc_{ij} + Destination_{it} + Origin_{jt} + DestinationOrigin_{ij} + Year_t + \in_{ijt}\right]$$

$$\text{with} \quad Bloc_{ij} = \begin{pmatrix} 1_{\{i \in Western\ bloc\ \&\ j \in Western\ bloc\}} \\ 1_{\{i \in Western\ bloc\ \&\ j \in Eastern\ bloc\}} \\ 1_{\{i \in Eastern\ bloc\ \&\ j \in Eastern\ bloc\}} \\ 1_{\{i \in Eastern\ bloc\ \&\ j \in Western\ bloc\}} \end{pmatrix}$$

The dependent variable is the value[i] of imports by country i from country j in year t. The vector coefficient β_t corresponds to geopolitical bias among all bloc combinations, compared to trade between and with countries not belonging to either of the blocs. The vector variable $Bloc_{ij}$ is a vector that contains 0s and a 1 depending on countries i and j membership to the blocs. The other variables correspond to fixed effects of countries as exporters ($Origin_{jt}$) or importers ($Destination_{it}$) and the distance[j] between the two ($DestinationOrigin_{jt}$). The time variation in the value of world trade is captured by a fixed time effect ($Year_t$). The error term is designated ε_{ijt}. This equation is estimated using the Poisson Pseudo-Maximum Likelihood[k]. The change in vector coefficients over time β_t then makes it possible to identify potential geopolitical fragmentation trends.

d. Canada, EU, France, Germany, Italy, Japan, United Kingdom, United States, Australia, Iceland, Taiwan, Norway, South Korea, Switzerland, Liechtenstein, Singapore, Ukraine, New Zealand.
e. On 1 January 2024, Iran, Egypt, Ethiopia, Saudi Arabia and the United Arab Emirates joined the group, made up of Brazil, Russia, India, China and South Africa.
f. UN (7 April 2022), "UN General Assembly votes to suspend Russia from the Human Rights Council".
g. Member countries of NATO and signatories to the Rio Pact and the ANZUS Treaty, plus Japan, South Korea and the Philippines.
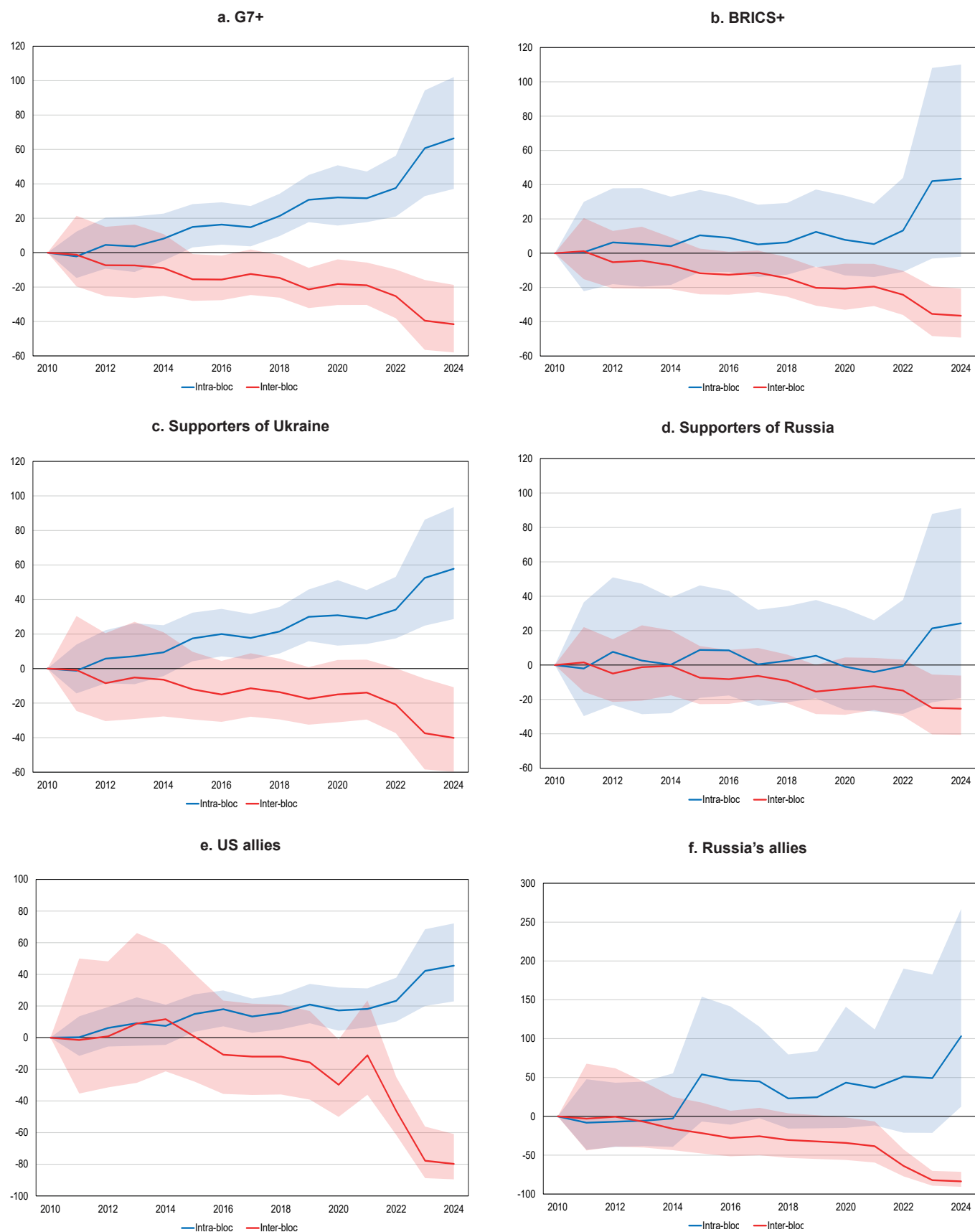h. Member countries of the Collective Security Treaty Organization (CSTO): Belarus, Kazakhstan, Kyrgyzstan, Tajikistan, Armenia.
i. Market share estimates show similar results.
j. Distance refers to all the factors of economic distance between countries, considered here as fixed. Empirical papers generally highlight the importance of geographical distance (transport costs) and cultural distance (language barriers), as well as trade barriers (tariffs).
k. J. S. Silva & S. Tenreyro (2006), "The Log of Gravity", *The Review of Economics and Statistics*, 88(4), 641-658.

Chart 2: Geopolitical bias depending on the importing geopolitical bloc (%)

a. G7+

b. BRICS+

c. Supporters of Ukraine

d. Supporters of Russia


e. US allies

f. Russia's allies

Source: UN Comtrade database, DG Trésor calculations.

How to read Chart 2a: Between 2010 and 2024, G7+ imports increased by around 60% from the G7+ (blue curve, i.e. intra-bloc trade) and decreased by 40% from BRICS+ (red curve, i.e. inter-bloc trade), compared *ceteris paribus* with trade between and with countries not belonging to either of the blocs. The shaded area surrounding the curve represents the 95% confidence interval.

These results should be treated with caution. Firstly, geopolitical bias can stem as much from the importing country as it can from the exporting country. Furthermore, the estimates do not account for indirect exposure: geopolitical bias observed in trade can be explained by the circumvention of tariffs, or even sanctions, by third countries (transit with possible processing of products in third countries). The results are also sensitive to methodological choices (model specification and bloc composition) or data selection (for example, trade in services and FDI flows[3] are not taken into account) and may show significant margins of uncertainty. Nevertheless, these results are consistent with similar studies.[4] Lastly, the existence of geopolitical bias does not necessarily prompt a decline in inter-bloc trade that is visible in the raw data, due to economic integration factors that may offset the impact of geopolitical fragmentation. For example, the growing integration of the BRICS+ countries into international trade is reflected in an increase in imports from these countries by the G7+ (see Chart 3) despite unfavourable geopolitical bias (see Chart 2).

Chart 3: Change in G7+ imports (base 100 = 2010)
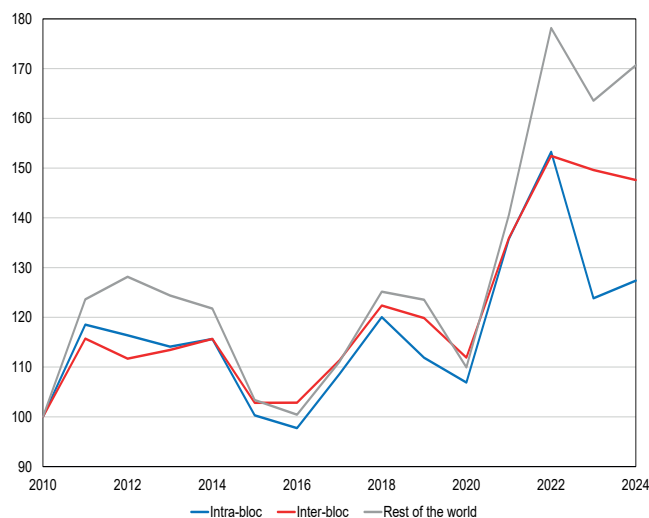
Source: UN Comtrade database, DG Trésor calculations.

2. Geopolitical fragmentation of trade would have significant economic consequences

Fragmentation can stem from strategies that address legitimate concerns. For example, Russia's invasion of Ukraine justifies the implementation of sanctions which, among other things, reduce dependency on its economy. Moreover, the coercive and trade-distorting practices of certain third countries should be met with a policy of de-risking, in particular by using trade defence instruments, including on "green goods". Similarly, the difficulty of multilateral cooperation (in particular, the paralysis of the WTO) can lead to a race to the bottom. It may therefore be worthwhile pursuing a positive trade agenda with countries that are allies or aligned in terms of social and environmental standards.

Trade fragmentation – which we are beginning to see early signs of – would be economically costly. Economic integration leads to efficiency gains through better resource allocation (gains associated with specialisation, competition, economies of scale or knowledge transfer). The reallocations towards the most productive jobs, companies, sectors and regions - that have bolstered globalisation -have fuelled economic growth,[5] brought down the price of goods and services,[6] boosted employment and wages,[7] and provided access to greater product quality and variety.[8] However, these reallocations have also come at a cost due to the difficulty of adapting production factors to the reorganisation of economic activities (matching qualifications, geographical mobility, regulatory barriers, etc.). As such, economic fragmentation would be doubly costly: on the one hand, the new system of production resulting from trade reconfigurations would be less economically efficient (loss of productivity, higher prices, etc.); on the other hand, the transition to this system could yet again generate adaptation costs. Furthermore, while globalisation may worsen inequality within countries,[9] fragmentation is unlikely to reduce them. Indeed, the lowest-income households would be the most exposed to (i) a reallocation of

(3) S. Aiyar, D. Malacrino & A. F. Presbitero (2024), "Investing in Friends: The Role of Geopolitical Alignment in FDI Flows", *European Journal of Political Economy,* 83, 102508.
(4) See above: J. Carluccio, G. Gaulier, G. Smagghue & S. Stumpner (2025). G. Gopinath, P. O. Gourinchas, A. F. Presbitero & P. Topalova (2025).
(5) T. Singh (2010), "Does International Trade Cause Economic Growth? A Survey", *The World Economy*, Volume 33, Issue 11.
(6) X. Jaravel & E. Sager (2019), "What Are the Price Effects of Trade? Evidence from the US and Implications for Quantitative Trade Models", *CEP Discussion Paper* 1642.
(7) WTO (2017), "World Trade Report 2017: Trade, technology and jobs".
(8) D. Hummels & P. J. Klenow (2005), "The Variety and Quality of a Nation's Exports", *American Economic Review,* 95(3), pp. 704-723.
(9) D. Rodrik (2024), "A Primer on Trade and Inequality", Oxford Open Economics, 3 (Supplement_1), i1076-i1082.

labour, as these households are less mobile,[10] and (ii) inflation, because they consume a larger share of their income.[11] The costs of fragmentation were observed during Brexit[12] or the Sino-American trade war (see Box 2). These costs would be much higher in the event of large-scale geopolitical fragmentation, with a loss of global GDP of up to 5%[13] according to the WTO, depending on the size of the blocs, the extent of decoupling and the means adopted.[14]

Fragmentation could also undermine resilience if it causes a sharp reduction in the diversity of trading partners without curtailing unwanted dependencies. Trade relations reflect country specialisation, which is the main source of gains from trade. Nevertheless, in addition to domestic production, trade also helps to diversify supplies and markets.[15] In this way, trade helped to limit supply difficulties during the COVID-19 pandemic[16] and the war in Ukraine.[17] Consequently, fragmentation involving the reshoring of non-competitive or non-strategic sectors would prove particularly costly and inflationary while increasing the risk of local disruption.[18] In comparison, nearshoring or friendshoring could reduce unwanted dependencies or the cost of remoteness when value chains are disrupted. Furthermore, de-risking, the strategy of reducing dependencies, should not be limited to bilateral trade due to circumventions that could lengthen[19] value chains and increase their vulnerability.

Furthermore, fragmentation would undermine our ability to meet global challenges, including the following:

- The green transition: countries would be less willing to make the efforts required for the transition if trade fragmentation already impose an economic cost. Fragmentation could increase the cost of the transition,[20] in particular by increasing the price of the goods required for the green transition ("green goods") or by limiting access to them (particularly for minerals),[21] reducing the scope and effectiveness of climate action[22] and reducing technology transfers.[23]

- Development: the cost of fragmentation is likely to be higher for developing countries that are more dependent on international markets, thereby exacerbating inequality between countries.[24] Furthermore, these countries would be harder hit by the paralysis of global economic governance bodies such as the World Bank, IMF or WTO.

- International security: the "*doux commerce*" theory, according to which trade promotes peace, was highlighted during the construction of the European Union and at the time of China's accession to the WTO. The latter example shows that economic integration is not, however, a sufficient condition for reducing geopolitical tensions.[25] Moreover, economic sanctions can be an appropriate solution for ending a war.[26] However, empirical studies show

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(10) Workers who have been laid off as a result of offshoring could theoretically get their jobs back in the event of reshoring. However, reshoring generally results in more capital-intensive and high-skilled-intensive tasks, with no major impact on overall employment. See K. De Backer, C. Menon, I. Desnoyers-James & L. Moussiegt (2016), "Reshoring: Myth or Reality?", OECD Science, Technology and Industry Policy Papers, 27, OECD Publishing, Paris.

(11) D. R. Carroll & S. Hur (2020), "On the Heterogeneous Welfare Gains and Losses from Trade", *Journal of Monetary Economics*, 109, pp. 1-16.

(12) L. Adjiman & B. Cabot (2024), "The Impact of Brexit on the United Kingdom's Economy", *Trésor-Economics* No. 343.

(13) J. Métivier, M. Bacchetta, E. Bekkers & R. Koopman (2023), "International Trade Cooperation's Impact on the World Economy", *WTO Staff Working Paper* ERSD-2023-02, Geneva: WTO. The increase in tariffs between countries belonging to separate blocs at the theoretical level corresponds to the result of a non-cooperative game.

(14) Unlike trade restrictions (tariffs, sanctions), positive incentives (trade agreements, subsidies) may have a deflationary effect, but will incur other costs (financing, subsidy races, European cohesion, etc.).

(15) F. Caselli, M. Koren, M. Lisicky & S. Tenreyro (2020), "Diversification Through Trade", *The Quarterly Journal of Economics*, 135(1), pp. 449-502.

(16) WTO (2021), "World Trade Report 2021: Economic Resilience and Trade".

(17) WTO (2023), "One Year of War in Ukraine: Assessing the Impact on Global Trade and Development".

(18) For example, in 2022, the United States faced a shortage of infant formula partly due to a domestic factory stopping production for health reasons, along with health restrictions on imports of these products. For a more structural study, see the OECD (2020), "Efficiency and risks in global value chains in the context of COVID-19", *OECD Economics Department Working Papers* 1637, OECD Publishing, Paris.

(19) H. Qiu, H. S. Shin & L. S. Y. Zhang (2023), "Mapping the realignment of global value chains", Bank for International Settlements, *Bulletin* 78.

(20) C. Gardes-Landolfini, P. Grippa, W. Oman & S. Yu (2023), "Energy Transition and Geoeconomic Fragmentation: Implications for Climate Scenario Design", International Monetary Fund.

(21) IMF (2023), "World Economic Outlook. Chapter 3: Fragmentation and Commodity Markets: Vulnerabilities and Risks".

(22) WTO (2022), "World Trade Report 2022: Climate Change and International Trade".

(23) S. Pienknagura (2024), "Trade in Low Carbon Technologies: The Role of Climate and Trade Policies", *IMF Working Paper*, WP/24/75.

(24) S. Hakobyan, S. Meleshchuk & R. Zymek (2023), "Divided We Fall: Differential Exposure to Geopolitical Fragmentation in Trade", *International Monetary Fund*, WP/23/270.

(25) S. G. Brooks (2024), "The Trade Truce?", *Foreign Affairs,* 103(4), pp. 45-58.

(26) G. Felbermayr, A. Kirilakha, C. Syropoulos, E. Yalcin & Y. V. Yotov (2020), "The Global Sanctions Data Base", *European Economic Review,* 129, 103561.

that the integration of two countries reduces their likelihood of entering into armed conflict.[27]

Fragmentation can nevertheless be a response to legitimate concerns. For example, Russia's invasion of Ukraine justifies the implementation of sanctions, while the coercive and trade-distorting practices of certain third countries should be met with a policy of de-risking, in particular by using trade defence instruments, including on "green goods". Similarly, the difficulty of multilateral cooperation (in particular, the paralysis of the WTO) can lead to a race to the bottom. It may therefore be worthwhile pursuing a positive trade agenda with countries that are allies or aligned in terms of social and environmental standards.


Box 2: The consequences of US protectionism

During President Trump's first term in office, the US government significantly increased tariffs on a number of products (solar panels, washing machines, steel and aluminium) and on China. As a result, the average tariff on all US imports rose from 1.6% in 2017 to 3.1% in 2022 (whereas the average tariff on imports from China rose from 3.1% to 21.2% over the same period).

On average, these tariffs were fully passed on to import prices, affecting consumers and workers on both sides of the Pacific. For example, one study estimates that the tariffs imposed by the US government have cost American businesses the equivalent of $900 per worker per year,[a] especially as US companies have reduced their margins more than they have increased their prices.[b] Similarly, while US industries protected by tariffs have helped to increase manufacturing employment, this effect has been more than cancelled out by retaliatory tariffs and, above all, by higher input prices for industries further down the value chain.[c] In China, the regions most affected by the US tariffs have seen their revenues fall by more than 2%.[d]

At the aggregate level, however, the effects were limited, with the loss of GDP estimated to be less than 0.2% of US GDP and less than 0.3% of China's GDP.[e]

Lastly, the United States' protectionist policy has reduced its direct exposure to China: China's share of US imports fell from 22% in 2017 to 14% in 2023. However, imports from other countries increased, particularly from Vietnam and Mexico, possibly reflecting an increase in indirect exposure to China (see Chart 4). Similarly, an increase in de *minimis* imports, i.e. duty-free imports below $800 that do not appear in US statistics, could also explain the statistical drop in Chinese imports.[f]

Chart 4: Change in the share of the United States' main supplier countries among total US imports (2017-2024, in pp)
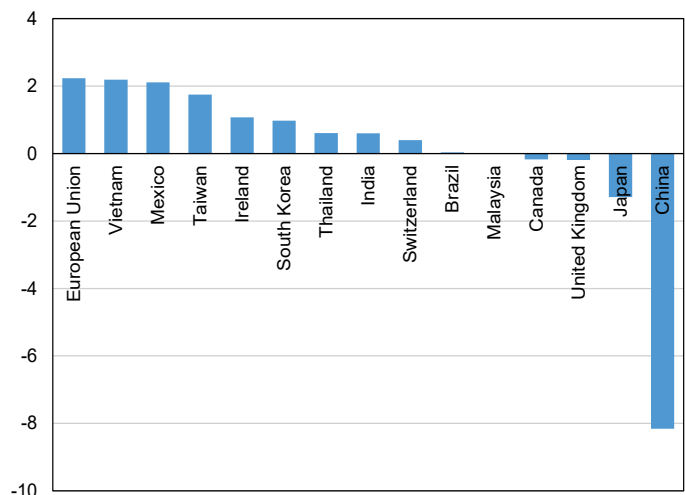
Source: US Census Bureau. Data for the 15 main partners of the United States.

a. K. Handley, F. Kamal & R. Monarch (2023), "Supply Chain Adjustments to Tariff Shocks: Evidence from Firm Trade Linkages in the 2018-2019 US Trade War", *National Bureau of Economic Research Working Paper* 31602.
b. A. Cavallo, G. Gopinath, B. Neiman & J. Tang (2021), "Tariff Pass-Through at the Border and at the Store: Evidence from US Trade Policy", *American Economic Review: Insights*, 3(1), pp. 19-34.
c. A. Flaaen & J. R. Pierce (2019), "Disentangling the Effects of the 2018-2019 Tariffs on a Globally Connected US Manufacturing Sector", *FEDS Working Paper* 2019-86.
d. D. Chor & B. Li (2024), "Illuminating the Effects of the US-China Tariff War on China's Economy", *Journal of International Economics*, 150, 103926.
e. P. D. Fajgelbaum & A. K. Khandelwal (2022), "The Economic Impacts of the US-China Trade War", *Annual Review of Economics*, 14, 205-228. The relatively limited impact estimated at macroeconomic level may be attributed to several factors, including the redistribution of customs revenues, an improvement in trade terms for the United States and the assumption of a constant level and use of the means of production. Dynamic models, which tend to mitigate the latter assumption, show greater losses.
f. H. L. Clark (2025), "U.S. Imports From China Have Fallen by Less Than U.S. Data Indicate", *Liberty Street Economics*, Federal Reserve Bank of New York.

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(27) P. Yakovlev & B. Spleen (2022), "Make Concentrated Trade Not War?", *Review of Development Economics*, 26(2), pp. 661-686.

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