



In partnership with



# **DHL Global Connectedness Tracker**

November 2024

# Steven A. Altman Caroline R. Bastian

NYU Stern School of Business

Center for the Future of Management • DHL Initiative on Globalization

#### Contents

Key takeaways	]
Question 1: Has the growth of global flows gone into reverse?	2
Question 2: Is geopolitical rivalry fracturing the world economy?	5
Question 3: Are international flows becoming more regional?	ç
Question 4: Are countries diversifying their international flows?	11
Conclusion	12

# **Key takeaways**

- 1. **Global connectedness** is holding steady at a record high level based on data through mid-2024, highlighting the resilience of international flows in the face of geopolitical tensions and uncertainty.
- 2. **International trade** remains a central pillar of the world economy. In 2023, 21% of the value of all goods and services produced was traded internationally, just shy of the all-time high of 22%.
- 3. **U.S.-China ties** continue to diminish, but they comprise a small part of the world's international flows. Direct trade between the U.S. and China fell from 3.5% of global goods trade in 2016 to 2.6% in 2024 (Jan-Jul).
- 4. **Rival geopolitical blocs** show some evidence of weakening ties, mainly because of shifts in Russia's international flows. The share of world trade crossing between close allies of the U.S. and China and the opposing bloc fell from 13% in 2016 to 10% in 2024, but excluding Russia only from 11% to 10%.
- 5. **Countries that are neither close allies of the U.S. nor of China** grew their share of world trade from 42% in 2016 to 47% in 2024, with the United Arab Emirates, India, Viet Nam, Brazil, and Mexico seeing especially large trade share gains over this period.
- 6. **Regionalization** is not overtaking globalization. During the first seven months of 2024, goods trade traversed the longest average distance on record (4,970 km) and the share taking place inside major world regions fell to a new low of 51% (considering data extending back to 2001).

The latest <u>DHL Global Connectedness Report</u>, released March 2024, strongly challenged the notion that the world has entered a period of deglobalization. Published every two years, the report is based on a detailed analysis of trade, capital, information, and people flows—both worldwide and at the level of individual countries.

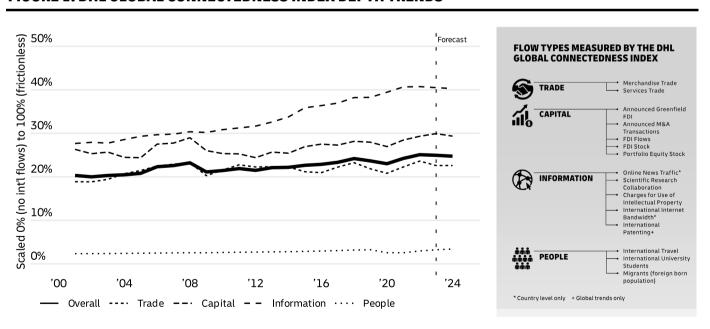
This <u>DHL Global Connectedness Tracker</u> provides a shortened, downloadable format to stay updated on key trends between full reports, accompanied online by interactive charts with additional detail on specific flows and geographic areas. With the re-election of Donald Trump as U.S. President, this tracker provides an up-to-date baseline on the state of globalization and a platform to monitor changes moving forward.

We provide updates on four key questions: (1) Has the growth of global flows gone into reverse? (2) Is geopolitical rivalry fracturing the world economy? (3) Are international flows becoming more regional? (4) Are countries diversifying their international flows?

# Question 1: Has the growth of global flows gone into reverse?

No. The DHL Global Connectedness Index depth dimension measures international relative to domestic activity (see **Figure 1**). It reached a record high of 25% in 2022 and remained at roughly the same level in 2023. Currently available data and forecasts also indicate no substantial change in 2024. The growth of international flows is keeping pace with the growth of domestic activity, with all four categories of flows—trade, capital, information, and people—showing substantial resilience.

## FIGURE 1: DHL GLOBAL CONNECTEDNESS INDEX DEPTH TRENDS



Data Source: DHL Global Connectedness Index

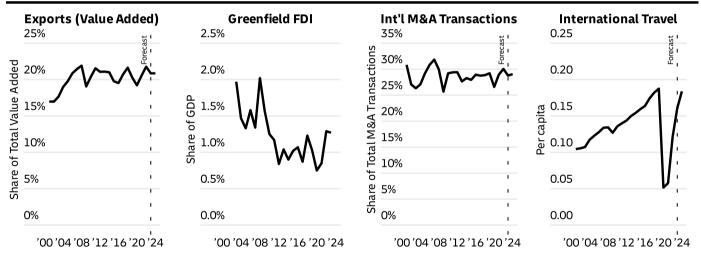
Note: Scaled from 0% (no flows cross national borders) to 100% (frictionless counterfactual with no border or distance effects).

At the same time, the world's <u>level of globalization remains limited</u>, with substantial potential for additional growth. We measure the depth of global connectedness on a spectrum from 0% to 100%. A level of 0% would indicate that no flows cross national borders at all. In contrast, a level of 100% would mean that borders and distance have ceased to matter, and flows are as likely to happen between countries as within them. <sup>1</sup> The current level of 25% means that even after decades of globalization, we are still much closer to a world of separate countries than a completely globalized world.

Figure 1 also highlights how globalization levels and trends vary across types of activity. Information flows are the most globalized, and this is also the domain—due to digitization—with the largest increase in globalization over the past two decades. Capital flows follow, and then trade flows. People flows, by contrast, stand out for very low levels of globalization.

Trends for specific types of flows (shown in **Figure 2**) underscore the resilience of globalization, and especially global business. Trade remains as important as it has ever been to the world economy. In 2023, 21% of the value of all goods and services produced around the world was traded internationally, very close to the record high level of 22%. Likewise, data on international business investment shows that companies have not lost their appetite for international opportunities. The <u>value of companies' announced expansion projects</u> in foreign countries

#### FIGURE 2: INDIVIDUAL FLOW DEPTH TRENDS



**Data Sources:** Asian Development Bank Multiregional Input-Output Database; IMF World Economic Outlook October 2024; Our World in Data; SDC Platinum; UNCTAD, based on information from the Financial Times Ltd, fDi Markets; UNWTO World Tourism Barometer; World Bank World Development Indicators; World Population Prospects

**Note:** Exports (Value Added) measures share of value that ends up in a different country from where it was produced (regardless of how many borders crossed in multi-country value chains).

<sup>&</sup>lt;sup>1</sup> For a brief explanation of this scaling method and selected references, see Endnote 1 on p. 93 of the <u>DHL Global Connectedness Report 2024</u>. Additional details are provided in <u>Section 7</u> of the same report.

<sup>&</sup>lt;sup>2</sup> We measure this using the ratio of trade in value added to world GDP, counting the value of traded goods only once regardless of how many borders they may cross in multi-country supply chains. Recent trends through 2023 were calculated based on data from the <u>Asian Development Bank's Multiregional Input-Output Tables</u> at current prices (62-country version), and the 2024 projection is based on gross trade and GDP growth forecasts from the <u>October 2024 IMF World Economic Outlook</u>.

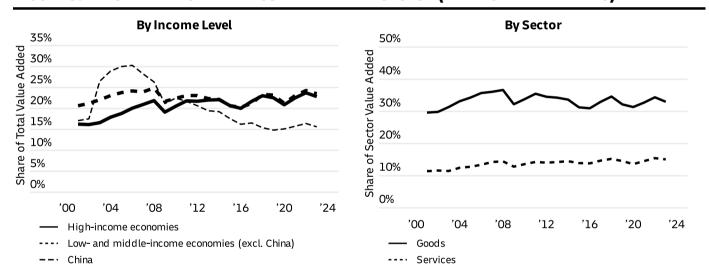
## DHL Global Connectedness Tracker November 2024

(announced greenfield FDI) relative to world GDP was at its highest level in more than a decade in 2022 and 2023. Meanwhile, the international share of mergers and acquisitions (M&A) transactions remains stable. Even <u>international travel has largely recovered</u>, with international trips per capita on track to approach pre-Covid levels in 2024.

The growth of international flows in the face of rising <u>policy constraints</u> and <u>uncertainty</u> may strike some as surprising. It suggests <u>how valuable</u> international flows are for countries and companies—and how costly deglobalization could be, <u>not only for economic growth</u> but also for other priorities such as <u>combatting climate change</u>, <u>curbing inflation</u>, and <u>boosting economic resilience</u>. Also, the recent growth of international flows would likely have been greater if the international environment had not been so turbulent.

A deeper look at the data shows that the growth of international flows varies across locations and types of activity. For example, in high income economies, the share of all value created domestically that is exported abroad has been on a rising trend over the past two decades (see **Figure 3**). By contrast, in low and middle income economies (excluding China), this measure of export intensity was still slightly below its 2008 peak level in 2023, with a rising trend only since 2016. China's export intensity—which plummeted between 2006 and 2019—rose again during the Covid-19 pandemic, highlighting China's renewed focus on exports.

FIGURE 3: EXPORT INTENSITY BY INCOME LEVEL AND SECTOR (IN VALUE ADDED TERMS)



**Data Sources:** Asian Development Bank Multiregional Input-Output Database; IMF DOT Database; IMF World Economic Outlook October 2024 database; OECD TiVA Database; World Bank World Development Indicators; World Trade Organization

**Notes:** Exports (Value Added) measures share of value that ends up in a different country from where it was produced (regardless of how many borders crossed in multi-country value chains). Sectoral breakdowns based on sectors producing value added (origin sectors) rather than sectors immediately exporting the value.

Trade in services—especially <u>digitally delivered</u> services—has shown stronger growth than trade in physical goods. While export intensity is much lower for services (15% in 2023) than for goods (33%), it has been on a long-term rising trend.<sup>3</sup> These data support the view that services offer <u>promising opportunities for export-led growth</u>, but they caution against giving up on export-led development in goods-producing sectors. Goods are still traded more intensively than services, and recent goods trade intensity data show a stable rather than a declining trend.

# Question 2: Is geopolitical rivalry fracturing the world economy?

Here, the evidence is mixed. Countries at the center of current tensions have seen substantial geopolitically driven shifts in their international activity, but we are still far away from a split of the world economy into disconnected geopolitical blocs. To the contrary, some countries are cultivating new roles as "connecting economies" linking geopolitical rivals.

Most discussion of a potential fracturing of the world economy focuses on the possibility of a separation between rival U.S.-centric and China-centric blocs of countries. To be sure, we do see a clear reduction in U.S.-China ties. As shown in **Figure 4**, the share of U.S. trade, capital, and information flows involving China has fallen by about 26% since 2016, and the share of China's flows involving the U.S. has fallen by roughly 20% over the same period.

There has been an even larger cut to ties between the European Union (EU) and Russia since Russia's full-scale invasion of Ukraine in 2022. In just three years, the share of the EU's flows that are to or from Russia fell by 78%, while the share of Russia's flows to or from the EU fell 56%. Unsurprisingly, an active military conflict and sanctions imposed in response has caused a far deeper split between Russia and western-aligned countries than tariff increases and other derisking policies have between the U.S. and China.

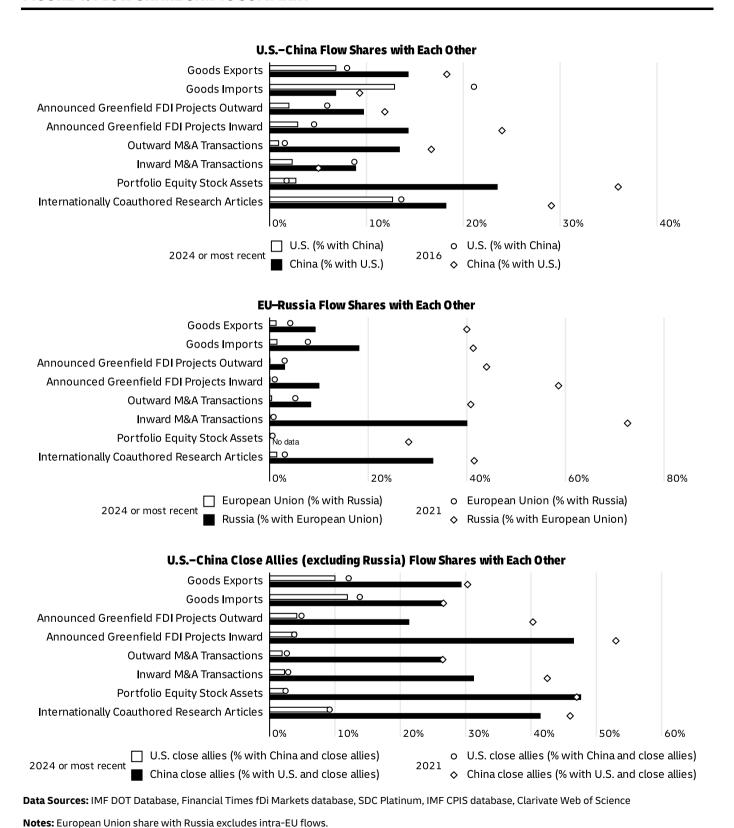
Shifts in flow shares between blocs of allied countries are also apparent, although they are smaller than those involving countries at the center of current conflicts. Using a <u>classification of close allies</u> developed by <u>Capital Economics</u>, <sup>4</sup> the share of U.S. close allies' flows that are to or from China and its close allies (excluding Russia) has fallen by 16% since 2021, while the share of China's allies' flows to or from the U.S. and its close allies fell by 9%.

For a finer-grained view of these developments, it is useful to look at trends over time for specific types of international flows (see **Figure 5**). Compare, for example, how the share of U.S. imports coming from China has trended relative to the share of the rest of the world's imports coming from China. The share of U.S. imports coming from China has fallen sharply since the start of the U.S.—China trade war in 2018, but the U.S. still brings in about as much of its imports from China as the rest of the world does. From 2018 to 2024 (Jan—Jul), the share of U.S. imports coming from China fell from 21.2% to 12.9%, while the share of the rest of the world's imports coming from China rose from 12.7% to 13.9%. This highlights how the U.S. and China had an unusually high level of connectedness before the current separation trend began, and how these two

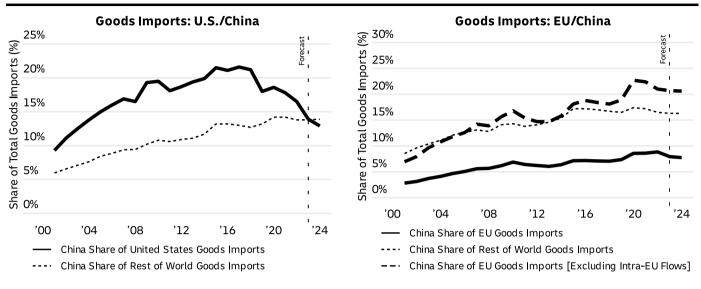
<sup>&</sup>lt;sup>3</sup> These sector-level export intensity values were calculated using value added data by origin sector (rather than by exporting sector) from the Asian Development Bank (ADB) Multi-Regional Input-Output Database. The values, thus, represent the share of the value created by a sector that is exported, including value that is not exported directly from that sector but is instead embedded in the exports of a different sector. Thus, services that contribute to the value of exported goods (such as professional services retained by an automotive manufacturer as part of its production of cars for export) are counted here as services rather than goods exports.

<sup>&</sup>lt;sup>4</sup> Refer to <u>DHL Global Connectedness Report 2024</u>, page 63, to see how each country was classified.

#### **FIGURE 4: FLOW SHARE SHIFTS SUMMARY**



#### FIGURE 5: FLOW SHARE SHIFTS



Data Source: IMF DOT Database

countries are still far from decoupled.<sup>5</sup> Meanwhile, the EU still brings in a larger share of its external imports from China (20.6% in 2024, Jan–Jul) than it did before the Covid-19 pandemic (18.9% in 2019).

While geopolitically driven shifts in international flows—such as those between the U.S. and China—naturally captivate the world, it is essential to keep their magnitudes in perspective. As shown in **Figure 6**, the share of world merchandise trade taking place directly between the U.S. and China has fallen from 3.5% in 2016 to 2.6% in 2024 (Jan–Jul).<sup>6</sup> This is a large drop in U.S.—China trade, but only a small shift from a global perspective. Moreover, while there has been faster trade growth within as compared to between geopolitical blocs since Russia's full-scale invasion of Ukraine in February 2022, the share of world trade taking place between blocs of close allies (excluding direct trade between the U.S. and China) has only fallen from 13.7% in 2021 to 10.5% in 2024.<sup>7</sup> If we also exclude Russia's trade with all countries, the decline in the share of trade crossing between blocs of close allies is even smaller (from 12.3% to 10.4%), leaving this measure close to its pre-Covid level of 11.4% in 2019.

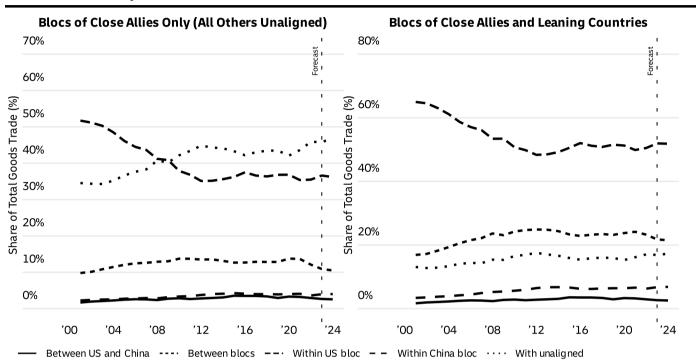
Four times more trade already happens within groups of close allies than between them. Friendshoring is not a new phenomenon, and what we are seeing now is more consistent with reducing reliance on adversaries than substantially boosting reliance on friends. The share of trade happening among close allies has held fairly steady for more than a decade (with about

<sup>&</sup>lt;sup>5</sup> These data only cover imports coming directly from China. They overstate the extent to which the U.S. has reduced its reliance on goods from China, because U.S. imports from other countries contain <u>rising amounts of content originating in China</u>.

<sup>&</sup>lt;sup>6</sup> Larger economies tend to trade less intensively than smaller economies, since more of their activity naturally takes place within their large domestic markets. As the world's two largest economies, it is therefore unsurprising that the share of trade taking place between the U.S. and China is much lower than these two countries' shares of both GDP and total trade.

<sup>&</sup>lt;sup>7</sup> The share of trade crossing between blocs rose during the Covid-19 pandemic, and part of the decline since 2021 reflected a reversion to prepandemic levels.

FIGURE 6: SHARE OF WORLD GOODS TRADE BETWEEN AND WITHIN BLOCS (WITH ALTERNATIVE BLOC CLASSIFICATIONS)



Data Source: IMF DOT Database

**Notes:** Bloc classifications based on Evans-Pritchard, J., & Williams, M. (2023). The shape of the fractured world economy in 2024. Capital Economics.

36.6% of world trade taking place among U.S. close allies in 2023 and about 4.0% among China's close allies). Instead, modest declines in the share of trade happening between blocs of close allies have been matched by small increases in the share of trade involving countries that are unaligned geopolitically or that only "lean" toward one superpower or the other. The share of trade involving countries that are neither close allies of the U.S. nor of China rose from 42.2% in 2016 to 46.7% in 2024. The United Arab Emirates, India, Viet Nam, Brazil, and Mexico exemplify this trend, ranking among the countries with the largest recent increases in their shares of world trade. The share of trade involving countries that are not even classified as "leaning" toward one or the other superpower rose from 15.4% in 2016 to 17.3% in 2024.

Thus, even as countries at the center of current tensions do have major geopolitically driven shifts in their international flows, the world economy has not—at least yet—developed a major split between rival blocs of geopolitically-aligned countries. That is good news, because the <a href="IMF">IMF</a>

has warned that a bifurcation of world trade along geopolitical lines could cut world GDP by as much as 7%, and technological fragmentation could lead to even larger losses.

The return of Donald Trump to the White House is expected to lead to further realignments of international trade patterns. While actual policy changes remain uncertain, Trump's campaign promises call for substantial tariff increases on U.S. imports from all countries and larger increases specifically on imports from China. If such tariffs are enacted, U.S. trade partners are expected to retaliate. This implies especially great pressure on the 2.6% of world goods trade that takes place directly between the U.S. and China, and some pressure more broadly on the 22% of all goods trade that is to or from the U.S. (13% of world imports and 9% of exports).

Overall **Trade** Capital Geobolitical distance (0-100) 24.5 24.0 23.5 23.0 22.5 22.0 Geopolitical distance (0-100) 26 (0-100)25 24 Geopolitical distance 24 22 22 21 20 ;<sub>24</sub> '24 '00 '16 '20 '00 '08 '12 '00 12 20 '04 'n 12 '04 16 '08 '16 20 '24 Information **People** Seopolitical distance (0-100) 25 Geopolitical distance (0-100) 26.0 24 25.5 23 25.0 24.5 All Countries **Excluding Russian Federation** 21 24.0 Excluding Russia and U.S.-China '00 '04 '20 '04

FIGURE 7: AVERAGE GEOPOLITICAL DISTANCE BASED ON UN VOTING PATTERNS

Data Source: DHL Global Connectedness Tracker

**Notes:** Geopolitical distance calculated according to 2018–22 UN General Assembly votes (rescaled 0-100), based on the Ideal Point Distance measure reported by Bailey, M. A., Strezhnev, A., & Voeten, E. 2017. Estimating Dynamic State Preferences from United Nations Voting Data. The Journal of Conflict Resolution, 61(2): 430–56.

# Question 3: Are international flows becoming more regional?

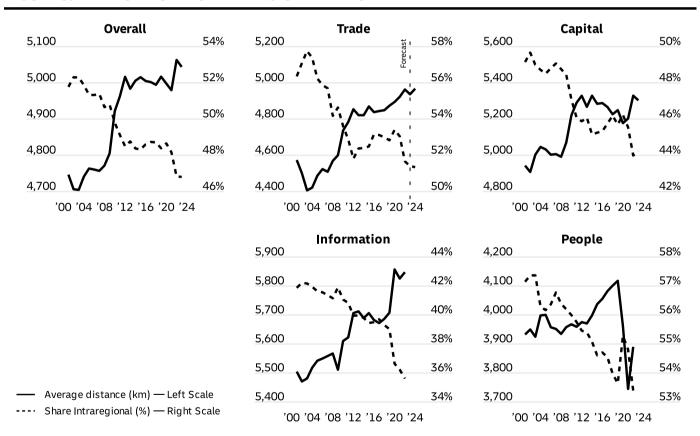
In recent years, resilience imperatives, geopolitical tensions, regional trade agreements, technologies such as automation and 3D printing, and environmental concerns have all fueled interest in producing goods closer to a company's customers—which could lead to a shift from globalization to regionalization. As yet, however, there is *not* a general pattern of more international activity happening within rather than between geographic regions.

<sup>&</sup>lt;sup>8</sup> For evidence on why friendshoring could lead to nearshoring/regionalization, see <u>DHL Global Connectedness Report 2024</u>, p. 73.

We measure regionalization using two complementary indicators: the share of flows happening inside major world regions and the average distance (in kilometers) over which international flows take place (see **Figure 8**). We use both because the share of flows happening inside regions can <u>show very different results</u> depending on how countries are grouped into regions. <sup>9</sup> The average distance eliminates the need for subjective choices about how to define regions. Since regional flows tend to happen over short distances, we expect increases in regionalization to be accompanied by declines in average distance.

In fact, most flows are taking place over stable or longer distances. There was a small decline in the average distance traveled for goods trade in 2023, but this indicator rebounded to a record high level during the first seven months of 2024, and the share of trade happening inside major world regions fell to a new low. There were also large increases in 2022 and 2024 (year to date) in the average distance between companies' home countries and the countries where they announced greenfield FDI projects. In short, the current data does not support a general pattern of rising regionalization.

FIGURE 8: AVERAGE DISTANCE AND REGIONALIZATION



Data Source: DHL Global Connectedness Tracker

While we do not see rising levels of regionalization, it is important to recognize that international activity is already highly regionalized. On average, about half of the world's trade, capital, information, and people flows take place inside roughly continent-sized regions, roughly three

 $<sup>^{9}</sup>$  See <u>DHL Global Connectedness Report 2024 p. 294 for a list of countries classified in each region.</u>

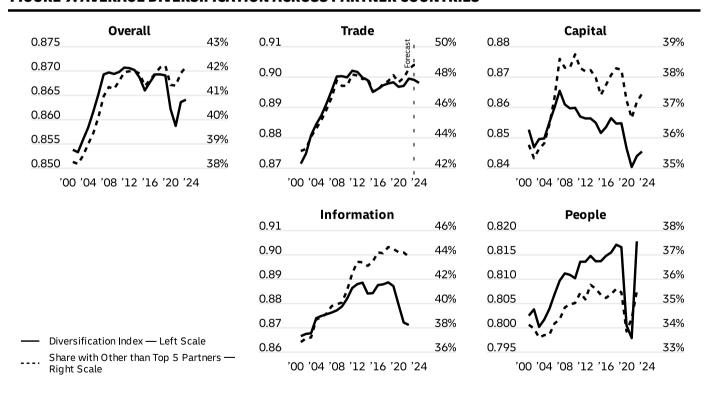
<u>times</u> more than one would expect if international flows were not constrained by geographic distance and <u>other types</u> of cross-country differences. Most countries interact far more intensively with their neighbors than they do with more distant countries.

# Question 4: Are countries diversifying their international flows?

A growing focus on de-risking countries' international activity has drawn attention to diversification of international flows across origin/destination countries. Policymakers and business leaders alike aim to avoid excessive reliance on any specific partner, especially those that could prove unreliable, e.g. due to geopolitical tensions. To monitor the diversification of international flows, we track both a diversification index (one minus the widely-used <u>Herfindahl Hirschman Index</u> of concentration) and the share of flows with countries other than a country's top 5 partners (origin/destination countries for a given flow) (See **Figure 9**).

At the broad level of total flows of trade, capital, information, and people, we do not currently see large shifts in the diversification of countries' international activity across origin/destination countries. The diversification of many types of international flows dipped during the Covid-19 pandemic and then rebounded with the return to more typical patterns of activity.

FIGURE 9: AVERAGE DIVERSIFICATION ACROSS PARTNER COUNTRIES



Data Source: DHL Global Connectedness Tracker

The diversification of goods trade began a rising trend in 2016, and the share with countries other than a country's top 5 partners reached a new high in 2023. However, that indicator has remained stable in 2024 (year to date), and the diversification index for goods trade declined

## DHL Global Connectedness Tracker November 2024

very modestly in 2023 and 2024. Thus, we do not see strong evidence of an ongoing diversification trend for goods trade.

More striking is the decline in the diversification of information flows, which was driven by a drop in the diversification of payments for the use of foreign intellectual property in 2020 and 2021 (the most recent year with data available on this indicator). The surge of online activity during the Covid-19 pandemic may have led to an increase in the world's reliance on a small number of intellectual property exporters.

These data also highlight the limited diversification of countries' international flows in absolute terms. Only 49% of trade flows, 38% of capital flows, 44% of information flows, and 36% of people flows extend to countries beyond the five countries each country interacts with the most for each type of flow. In other words, more than half of all international flows are between countries and just five partners. Most countries do not maintain substantial ties to countries all over the world. Instead, they primarily interact with their immediate neighbors and with large countries located farther away.

## Conclusion

Despite much talk about deglobalization and a potential fracturing of the world economy along geopolitical or regional lines, the latest data confirms that global flows remain highly resilient. There has been no shift from international to domestic activity. Realignments of international flows along geopolitical lines are still most prominent between countries at the center of current conflicts. We see neither a global pattern of rising regionalization, nor a substantial change in the diversification of countries' flows across partner countries. Deglobalization remains a risk, not a current reality.

For <u>public policy</u>, the resilience of global flows has several important implications. First, it creates strong incentives for countries to work together to preserve and expand the benefits they derive from globalization. Second, it calls for leaders to redouble efforts to address public concerns about globalization, since the resilience of global flows is matched by the persistence of anti-globalization movements in many countries. Third, it implies that de-risking policies, where required, should consider a holistic view of global value chains. Otherwise, shifts from direct trade to indirect trade (via third countries) can exacerbate risks by reducing visibility. When more countries are involved, it becomes harder to monitor each country's role and its sensitivity.

For <u>business</u>, the key implication is that it is essential to analyze the competitive implications of potential reshoring, nearshoring, or friendshoring moves. The risk of deglobalization means that companies should conduct stress-tests to understand their exposure to disruptions to global flows. But the resilience of international flows means that companies that unilaterally retreat from international opportunities could place their competitive positions at risk.

As decision-makers contemplate implications of the second Trump presidency, they should keep in mind that the recent resilience of international flows was sustained through Brexit, the U.S.—China trade war, the Covid pandemic, and wars in Ukraine and Gaza. The future is unknown, but recent history suggests a cautious view of predictions that new shocks will reverse globalization.

The bottom line is that we continue to live in a partially globalized world, creating opportunities and challenges for countries and companies. As DHL Global Connectedness Index co-creator Pankaj Ghemawat has emphasized in his <u>Laws of Globalization</u>, international flows will continue to be too big to ignore, even as they will continue to be constrained by the distances and differences between countries. While the contours of this complex landscape remain in flux, the fundamental drivers and benefits of international engagement endure.

#### **About the Authors**

**Steven A. Altman** is a Senior Research Scholar and Research Assistant Professor at the New York University Stern School of Business. He is also Director of the DHL Initiative on Globalization at NYU Stern's Center for the Future of Management, affiliated with NYU Stern's Department of Management and Organizations. His research focuses on globalization and its implications for business strategy and public policy. He holds a PhD from the University of Reading, an MBA from the Harvard Business School, an MPA from Harvard's John F. Kennedy School of Government, and a BS in Economics from the Wharton School of Business at the University of Pennsylvania.

**Caroline R. Bastian** is a Senior Research Scholar at the New York University Stern School of Business. Ms. Bastian is based in the school's DHL Initiative on Globalization at its Center for the Future of Management. She coordinates the initiative's work on data science, statistics, quantitative methods, and data visualization. Ms. Bastian holds an MS in Applied Statistics for Social Science Research from New York University, a Master of International Affairs from Columbia University, and a BA from Pacific University.

#### **Imprint**

Publisher:

DHL Group, Headquarters

Responsible:

Nicola Leske, Head of Group Communications & Sustainability 53250 Bonn, Germany

Project Leadership DHL Group:

Anita Gupta, Mathias Schneider

The views expressed in this study are the views of the authors and do not necessarily reflect the views or policies of DHL Group.

### dhl.com/globalconnectedness

## doi.org/10.58153/w7fak-t4r89

© Deutsche Post AG, Bonn, Germany