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DHL GLOBAL CONNECTEDNESS INDEX 2021 UPDATE

Globalization Shock and Recovery in the Covid-19 Crisis

Key
Highlights

ABOUT THE DHL GLOBAL CONNECTEDNESS INDEX

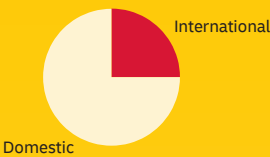
Globalization is often equated with international trade. The DHL Global Connectedness Index takes a broader view. Aside from global trade, we also look at cross-border flows of capital, information, and people around the world.

The index goes beyond just tracking metrics such as the quantity of traded goods, the amount of international investment or the number of

migrants – because these absolute numbers alone say little about the actual extent of globalization. For example, could we say that globalization has progressed just because trade has grown by 2%? And should we be afraid of hyper-globalization if the world’s exports reach \$30 trillion? To answer questions like these, we need to put these numbers in perspective. We do this in two ways:

Depth

International flows relative to domestic activity



Breadth

Geographic distribution of international flows



1. We measure the *depth* of international flows:

We look at each cross-border flow in relation to relevant domestic activities. For trade, for example, we compare exports to total economic output. This and other ratios help us evaluate the significance of the respective international flow. In other words, depth measures indicate how international the world really is with respect to each type of activity.

2. We measure the *breadth* of international flows:

We evaluate to what extent flows are distributed broadly around the globe rather than concentrated between specific origins and destinations. After all, in a truly globalized world, one would expect countries to trade not just with a few neighbors, but with a wide variety of nations.

The DHL Global Connectedness Index measures the depth and breadth of international flows of trade, capital, information, and people. It draws on more than 3.5 million data points across the 13 measures of country-to-country flows listed here.



TRADE

Merchandise Trade
Services Trade



CAPITAL

Foreign Direct Investment (FDI) Stocks
Foreign Direct Investment (FDI) Flows
Portfolio Equity Stocks
Portfolio Equity Flows



INFORMATION

International Internet Bandwidth*
Telephone Call Minutes
Scientific Research Collaboration
Trade in Printed Publications



PEOPLE

Tourists (Departures and Arrivals)
International University Students
Migrants (Foreign-Born Population)

* Country Level Only

INTRODUCTION

Dear Reader,

As 2021 draws to a close, globalization looks far stronger than it did in the early stages of the Covid-19 pandemic. The swift recoveries of trade and other flows highlight how international connections expand our capacity to overcome challenges. When a crisis strikes, many feel a strong impulse to hunker down behind borders. But the more extreme the challenge, the more urgent it becomes to draw upon the best ideas and resources from at home and abroad.

The DHL Global Connectedness Index 2021 Update shows that globalization has been much more resilient through the Covid-19 crisis than many predicted. World trade in goods has soared to well above pre-pandemic levels, and most other international flows are also rebounding strongly. Only international travel is still severely depressed, but there are even glimmers now of a potential travel recovery.

Global connectedness has played key roles in delivering essential goods and services, and it has kept families in close contact even from a distance. Meanwhile, however, the pandemic has also highlighted vulnerabilities such as supply chain bottlenecks and low-income countries lagging behind in the recovery. We can learn from this “stress test” to fortify and expand the benefits of a connected world.

The following pages will give you a high-level summary of the state of globalization in 2021 and put recent developments into historical perspective. We hope they will inspire you to learn more about the DHL Global Connectedness Index. This year’s report and a variety of supporting materials are available at www.dhl.com/gci.



Frank Appel
CEO, Deutsche Post DHL Group



Steve A. Altman
Senior Research Scholar and Director of the
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GLOBAL CONNECTEDNESS

KEY TAKE AWAYS

1

Covid-19 has not caused globalization to collapse. The DHL Global Connectedness Index declined modestly in 2020, and it is on track to rise in 2021.



6

Global flow patterns show no evidence of a major shift toward regionalization. Long-distance trade has grown faster than short-distance trade during the pandemic.



2

Trade in goods has surged to well above pre-pandemic levels, powerfully supporting the global recovery even as capacity challenges and trade tensions persist.



7

U.S.-China decoupling was evident in international flows in 2019, but it went into reverse in 2020 as the pandemic boosted trade between the world's two largest economies.



3

The pandemic dealt a major blow to international capital flows, but portfolio equity flows stabilized in mid-2020 and foreign direct investment (FDI) rebounded sharply in 2021.



8

The world's poorest countries are falling behind in the globalization recovery. Their trade and FDI flows were still below pre-pandemic levels in the first half of 2021.



4

A spike in the growth of digital information flows at the onset of the pandemic was short-lived. The globalization of information flows has reverted to a slower growth trend.



9

Global connectedness is still limited in absolute terms. Domestic activity far surpasses international activity, and international flows are strongest among neighboring countries.



5

The pandemic hit international people flows the hardest, and they are on track to recover the slowest. International travel remained down more than 80% in the first half of 2021.



10

Stronger global connectedness could accelerate the world's recovery from Covid-19. Vulnerabilities highlighted by the pandemic should be addressed for a more prosperous and resilient future.

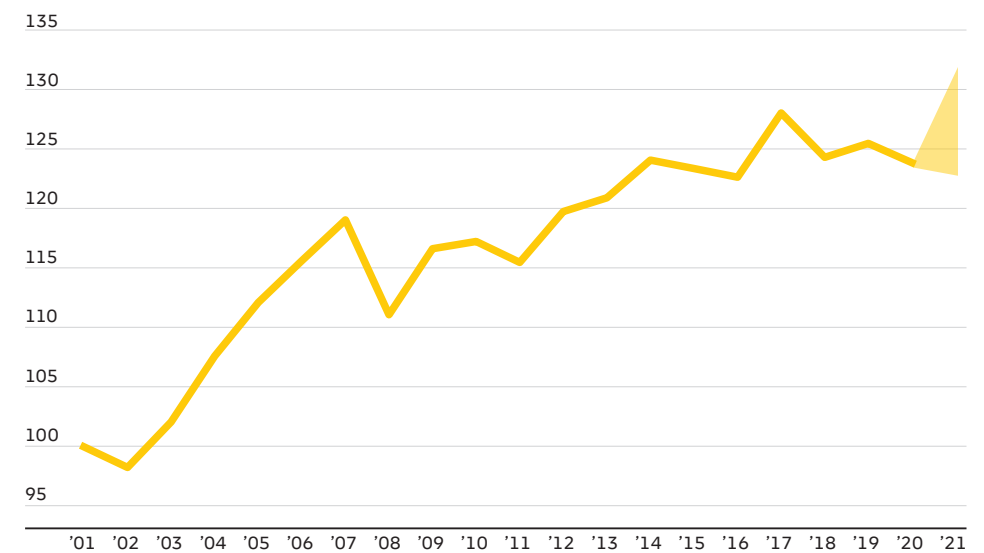


GLOBAL CONNECTEDNESS THE COVID-19 STRESS TEST FOR GLOBALIZATION

The Covid-19 pandemic has confronted globalization with its greatest stress test in decades. Borders slammed shut, geopolitical tensions flared, and industries faced unprecedented shocks to both demand and supply. But more than a year and a half since the onset of the pandemic, data clearly refute early speculation that Covid-19 would spell the end of globalization. The DHL Global Connectedness Index declined very modestly in 2020, and we see clear evidence of a recovery in 2021.

Overall, globalization is emerging from the pandemic in much better shape than many expected. However, the world's poorest countries are still dangerously disconnected, and we're finding mounting evidence that these countries are falling even further behind in the recovery.

DHL GLOBAL CONNECTEDNESS INDEX, 2001 – 2021*



*2021 projected

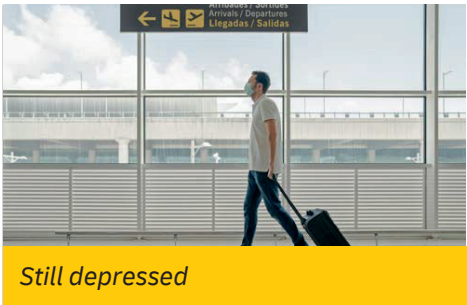
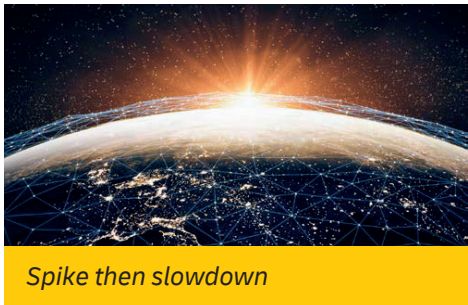
The resilience of global flows is good news, because higher levels of global connectedness can help boost economic growth and curb inflation. This resilience also implies that globalization could play a larger role than many have presumed in supporting the recovery from Covid-19 and contributing to a safer and more prosperous world moving forward. But to maximize the benefits of globalization, we need to address longstanding vulnerabilities that became even more apparent during the pandemic.

Four priority areas stand out:

- Fortify global and regional supply chains
- Bolster trade agreements and international institutions
- Prevent the world's poorest countries from falling further behind
- Secure the future of digital globalization.

GLOBAL CONNECTEDNESS

FOUR FLOWS THAT CONNECT WORLD



Trade

After plummeting at the onset of the Covid-19 crisis, merchandise trade has rebounded swiftly and surpassed pre-pandemic levels. The latest forecasts call for trade growth to outpace GDP growth through 2022, expanding the role of trade in global economic output. However, the pandemic has hit services trade harder than merchandise trade, and the proportion of global output traded across national borders remains below its peak.

Capital

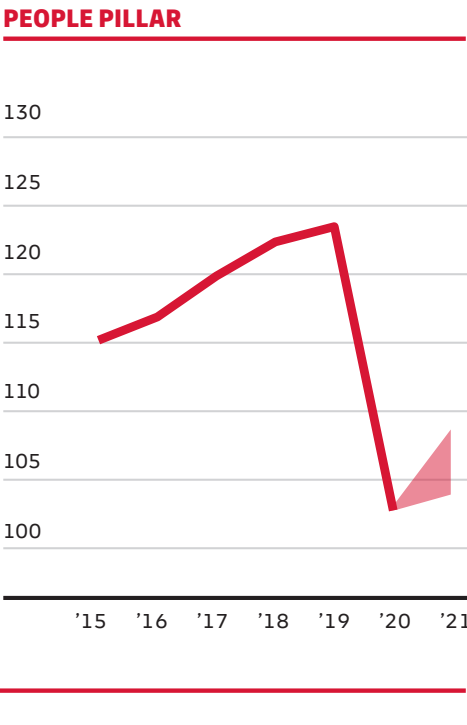
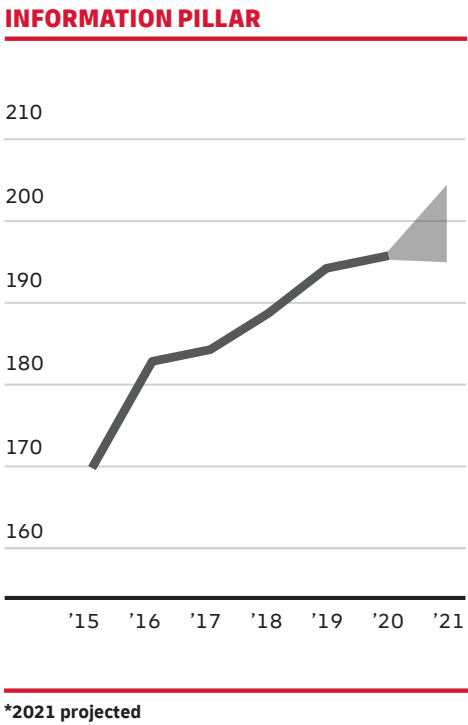
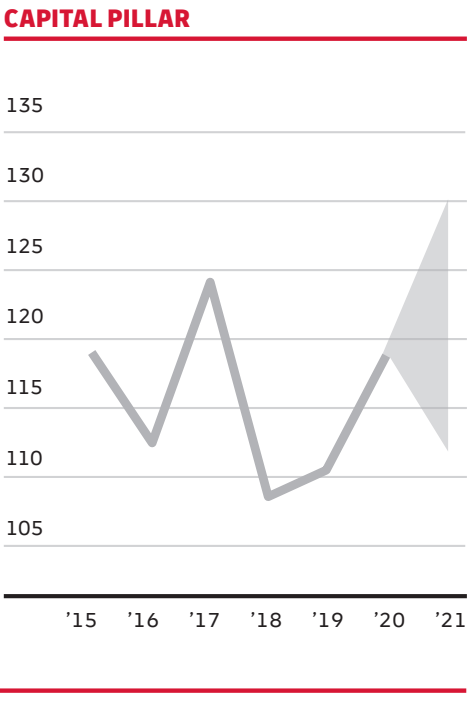
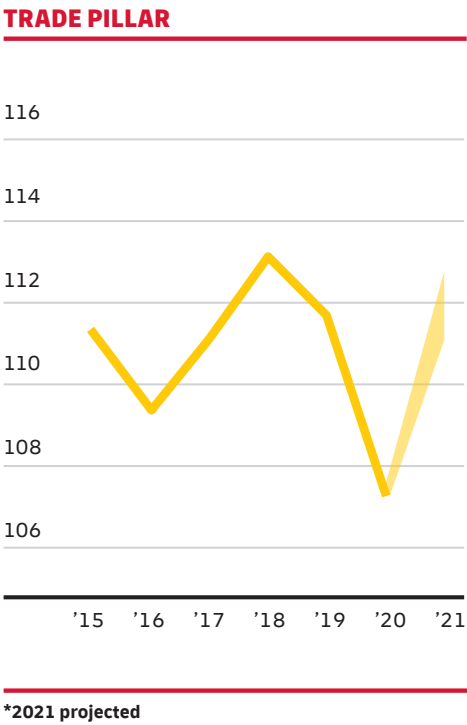
International capital flows declined sharply as the pandemic spread around the world, but swift action by governments and central banks prevented the public health crisis from turning into another global financial crisis. Foreign direct investment flows suffered a large decline in 2020, but they began to rebound in the first half of 2021 and are on track to get all the way back to pre-pandemic levels this year.

Information

The internet-fueled expansion of international information flows has launched what some have called the era of “digital globalization.” The growth of data flows both within and between countries spiked early in the pandemic. However, these flows have since reverted to their longer-term slower growth trend, consistent with slower globalization of telephone calls and scientific research collaboration in recent years.

People

The pandemic has impacted people flows much more than the other pillars of global connectedness measured in the DHL Global Connectedness Index. International travel plummeted 73% in 2020, reversing three decades of growth. However, we see glimmers of a potential travel recovery starting in mid-2021. Rough data also suggest slowdowns in the growth of international education and migration.

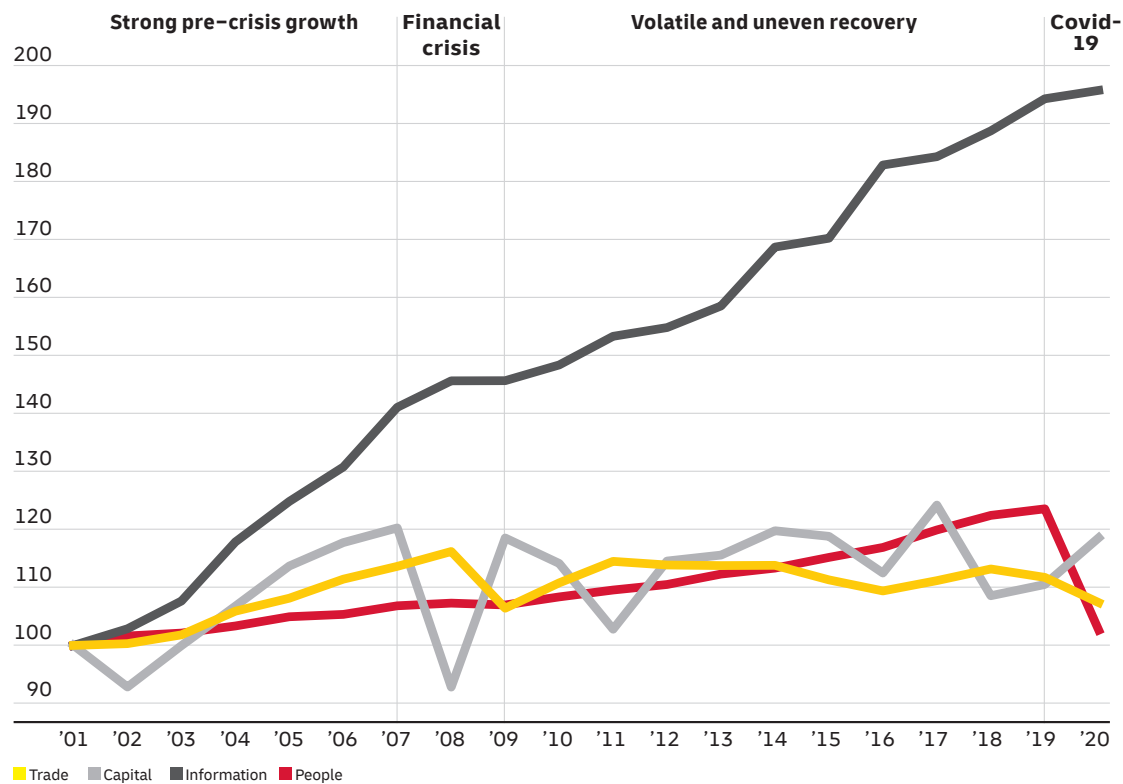


GLOBALIZATION IN HISTORICAL PERSPECTIVE

Over the past two decades, predictions about the future of globalization have swung from one extreme to the other – from declarations that the world was becoming “flat” in the mid-2000s to proclamations that globalization was “dead” following the 2008-09 global financial crisis, Brexit, the U.S.-China trade war, and now the Covid-19 pandemic. In contrast, the actual development of global flows has tended to follow a steadier course. We see four distinct phases in the evolution of global flows since 2001:

- 2001-2007: Strong pre-crisis growth
- 2007-2009: Global financial crisis
- 2009-2019: Volatile and uneven recovery
- Since 2020: Covid-19 pandemic

FOUR PILLARS OF GLOBAL CONNECTEDNESS, 2001 – 2020



Trade and capital flows steadily grew more globalized before the 2008-09 global financial crisis but have since generally fluctuated below their pre-crisis peaks. Information and people flows, on the other hand, continued to set new records until the Covid-19 pandemic caused people flows to collapse.

2001 - 2007: STRONG PRE-CRISIS GROWTH

Countries focused on opening markets and attracting foreign direct investment. The internet's explosive growth expanded international information flows. Flows of trade, capital, information, and people all increased. Globalization seemed, to many, unstoppable.

2007 - 2009: GLOBAL FINANCIAL CRISIS

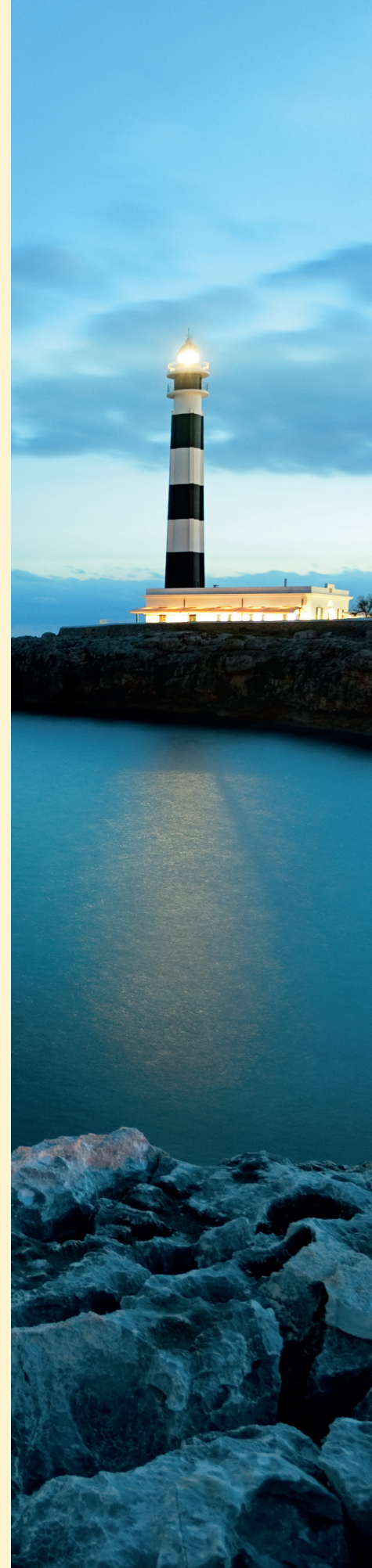
The global financial crisis caused the sharpest declines in the DHL Global Connectedness Index on record. Capital flows plummeted first. Trade was the next domino to fall, as the “great trade collapse” reverberated through multi-country supply chains. But the flows of information and people continued to rise.

2009 - 2019: VOLATILE AND UNEVEN RECOVERY

The economic recovery was painfully sluggish in many parts of the world. Trade and capital flows rebounded from crisis-era lows, but neither resumed the steady pattern of growth that prevailed before the crisis. In contrast, information and people flows continued to rise, albeit with information slowing notably since 2016. The last few years of this period saw rising trade barriers, heightened scrutiny of foreign investments due to national security concerns, new restrictions on international data flows, and, in many countries, continued tensions around the issue of immigration.

SINCE 2020: COVID-19 PANDEMIC

In early 2020, flows of international trade, capital, and people plummeted as Covid-19 spread world-wide. At the same time, digital information flows surged as in-person interactions went online. Capital flows quickly stabilized. Trade in goods rebounded and even surpassed pre-pandemic levels before the end of the year. Information flows reverted to their long-term pattern of slower growth. Only people flows remained severely depressed throughout 2020 and into 2021.



KEY QUESTIONS

SHAPING THE FUTURE OF GLOBALIZATION

IS GLOBALIZATION GIVING WAY TO REGIONALIZATION?

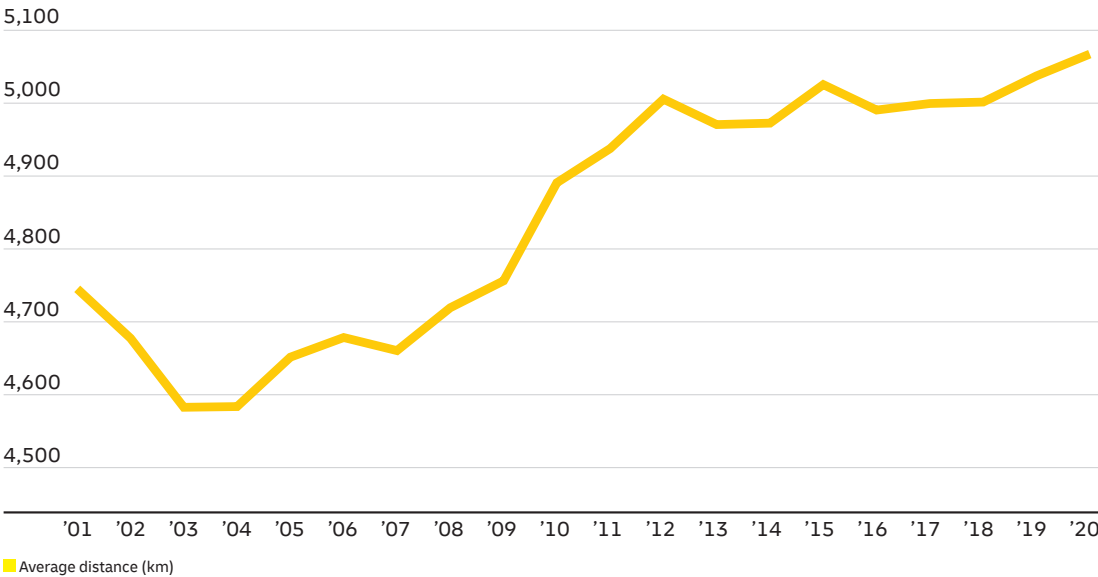
Recent analyses of globalization have warned that the world could be fracturing along regional lines. Supply chain disruptions due to Covid-19 raised corporate interest in moving production closer to destination markets, and longer-term geopolitical and technological shifts could also favor a more regionalized world.

So, what do the numbers say?

If a robust shift toward regionalization were underway, we would expect trade, on average, to take place over shorter distances. However, data suggests the opposite: trade distances have increased since 2004, albeit slower since 2012.

Beyond trade flows, the data on our remaining globalization pillars—capital, information, and people — also fail to indicate a clear trend toward regionalization.

AVERAGE DISTANCE TRAVERSED BY MERCHANDISE TRADE (KILOMETERS), 2001–2020



The average distance traversed by trade flows is a more objective measure of the geography of international trade than the percent of flows taking place inside regions (since there are many different ways of grouping countries into regions). The general trend has been toward more long-distance trade, albeit at a slower pace in recent years.



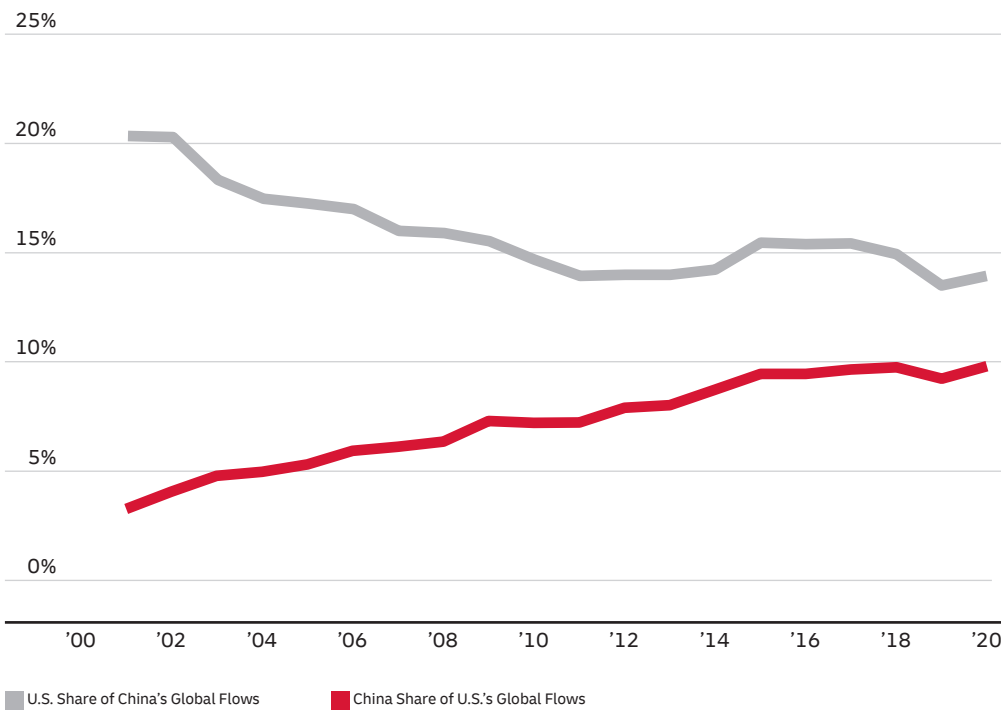
ARE THE U.S. AND CHINA DECOUPLING?

The potential for a rupture between these economic giants is one of the primary reasons that many foresee a shift to a more regionalized world.

But is such a split underway? Our analysis points to only a modest decoupling trend, interrupted by rising trade interdependence since the onset of the Covid-19 pandemic.

This graph, considering trade, capital, information, and people flows all combined, shows that the U.S. is a more significant partner for China's international flows than China is for the U.S. However, it also indicates that the U.S. share of China's global flows declined in the early 2000s before stabilizing around 2010. In contrast, China's share of U.S. flows had been gradually rising before slowing in 2015.

OVERALL U.S.-CHINA CONNECTEDNESS BASED ON TRADE, CAPITAL, INFORMATION, AND PEOPLE FLOWS, 2001 – 2020



The U.S. and China shifted modestly away from flows with each other in 2019, but that development was partially reversed during the pandemic in 2020.



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THE DHL INITIATIVE ON GLOBALIZATION

The DHL Initiative on Globalization at NYU Stern's Center for the Future of Management aims to develop and maintain the academic world's most comprehensive collection of data on the globalization of trade, capital, information, and people flows and to be a leading center of excellence for data-driven globalization research. Drawing upon this unique research base, the Initiative strives to provide business leaders, policymakers, and educators timely and useful insights into the state and trajectory of globalization, how globalization affects companies and countries, and best practices for connecting across borders. Find out more at: www.stern.nyu.edu/globalization



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