



Citi  
GPS



# Supply Chain Financing

## Resilience, Opportunity and the Shifting Winds of Trade

Citi GPS: Global Perspectives & Solutions

February 2025

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# SUPPLY CHAIN FINANCING

## Resilience, Opportunity and the Shifting Winds of Trade

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The winds of trade are changing. The pandemic, geopolitical upheavals, supply chain disruptions, inflation, the end of historically low interest rates, and other challenges have left scars on companies of all sizes, in all jurisdictions.

This Citi GPS Supply Chain Financing Report offers a comprehensive analysis of global trade dynamics, economic performance, and emerging trends in supply chain management.

Despite the upheaval, the overriding theme has been resilience. The lessons learned – including a focus on working capital – will not be easily forgotten.

Yet over the past two years, the global economy has outperformed bearish forecasts, bolstered by strong consumer spending and a healthy U.S. corporate sector. The geopolitical landscape is unpredictable, of course, with President Trump's return to the White House introducing trade uncertainties that could have significant consequences for companies and countries.

The operating environment right now though, weeks into the new administration, remains favorable, driven by rate cuts in the West and government stimulus in China. At the start of 2025, Citi economists predict 2.6% growth this year, with inflationary pressures in global goods markets expected to remain subdued.

This year, 58% of suppliers surveyed reported sales orders meeting or exceeding expectations, while 61% of large corporates anticipate increased exports.

Key to this optimism is the realization that globalization is not retreating but evolving. Shifts in supply chains reflect a strategic realignment aimed at mitigating risks and enhancing resilience while achieving efficiencies where possible. Diversification efforts are accelerating, with 38% of corporate survey respondents planning to reduce reliance on China. This reconfiguration creates new opportunities. Over a third of suppliers are benefiting from new sales corridors after securing orders from previously untapped countries.

It will take time to fully understand any supply chain reconfigurations, but some corridors could benefit. Should corporates adopt more China-plus-one strategies, China-to-ASEAN corridors may see growth. The Asia-Latam corridor also has potential.

Generative AI could streamline trade: 58% of large corporations are increasing investments in digital innovations. Large corporates hope GenAI could enhance treasury operations by unlocking trapped liquidity and enabling faster, more responsive inventory management.

This report delivers insights about global trade, the economic outlook, and the challenges and ambitions of large corporates and smaller suppliers. We also explore the changing role of export credit agencies, as well as trends in payables and receivables finance and digitization.

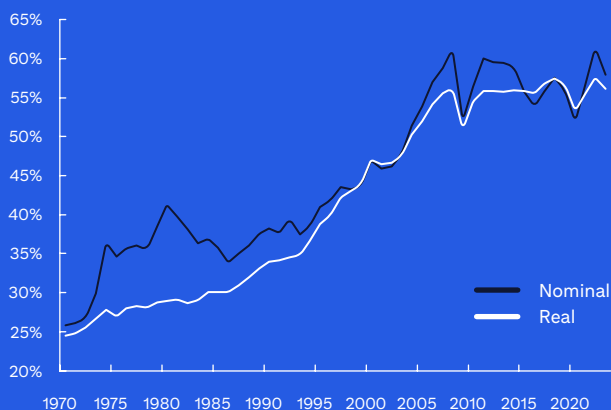
We hope this report provides a comprehensive perspective on the shifting trade landscape and the opportunities that lie ahead for businesses.

# Supply Chain Financing

## Resilience, Opportunity and the Shifting Winds of Trade

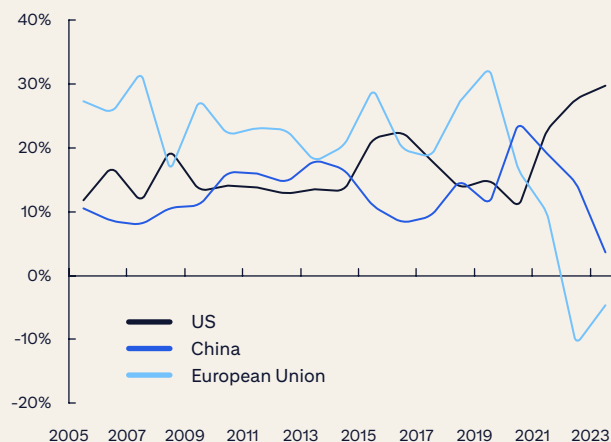
Trade's share of GDP has grown inexorably since 1970, bar a few dips along the way. In recent years, the direction of trade has changed significantly. Foreign direct investment (FDI) inflows into the EU, for example, has fallen rapidly as a percentage of global inflows since the pandemic. FDI inflows into China, too, has fallen as trading partners start to adopt a "China Plus One" strategy.

### Global Trade (Share of GDP)\*



\*Trade is exports and imports of goods and services.  
Source: Citi Research, World Bank, Haver Analytics

### Country FDI Inflows (% of Global Inflows)



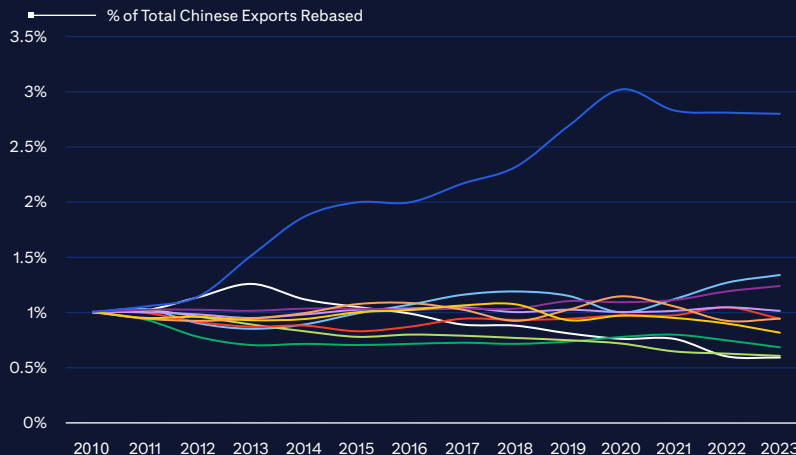
Source: Citi Research, OECD

### Breakdown of Exports From China (Rebased to 2010)

- Vietnam
- India
- Rest of World
- South Korea
- Netherlands
- United Kingdom
- USA
- Germany
- Japan
- China, Hong Kong SAR

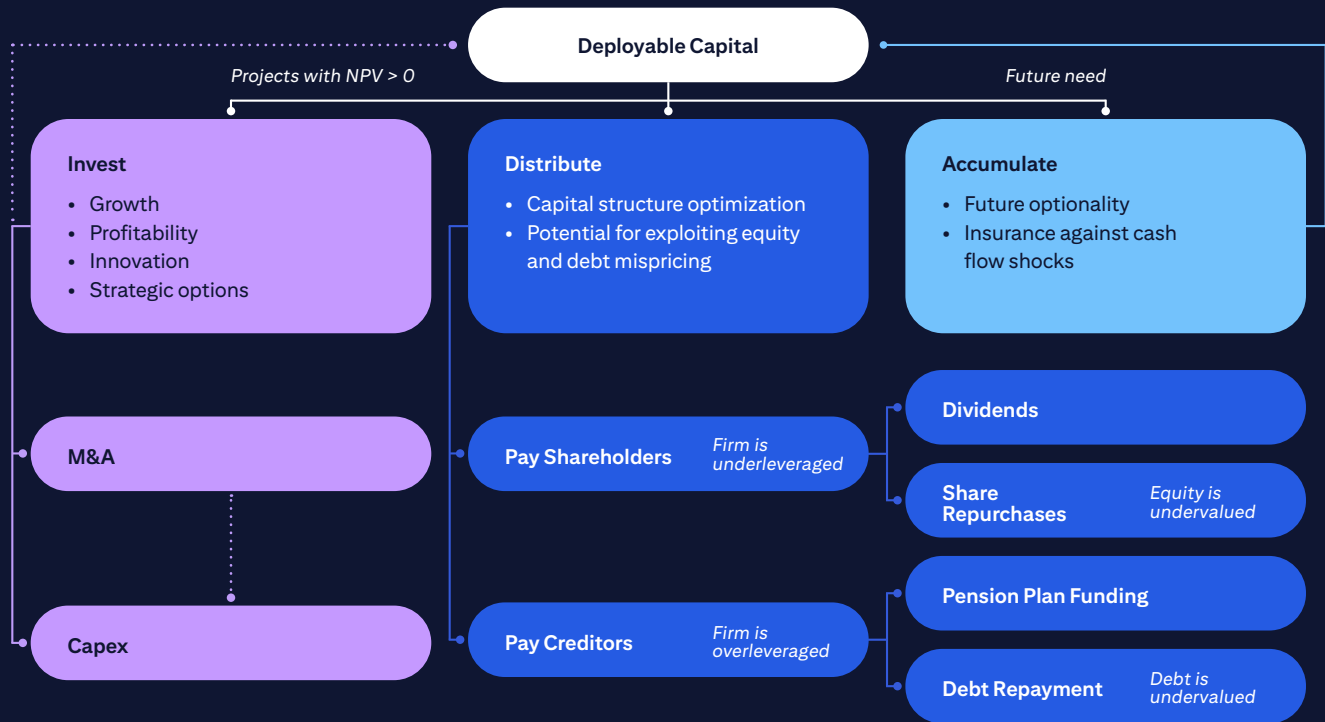


Source: UN ComTrade,  
Citi Global Data Insights

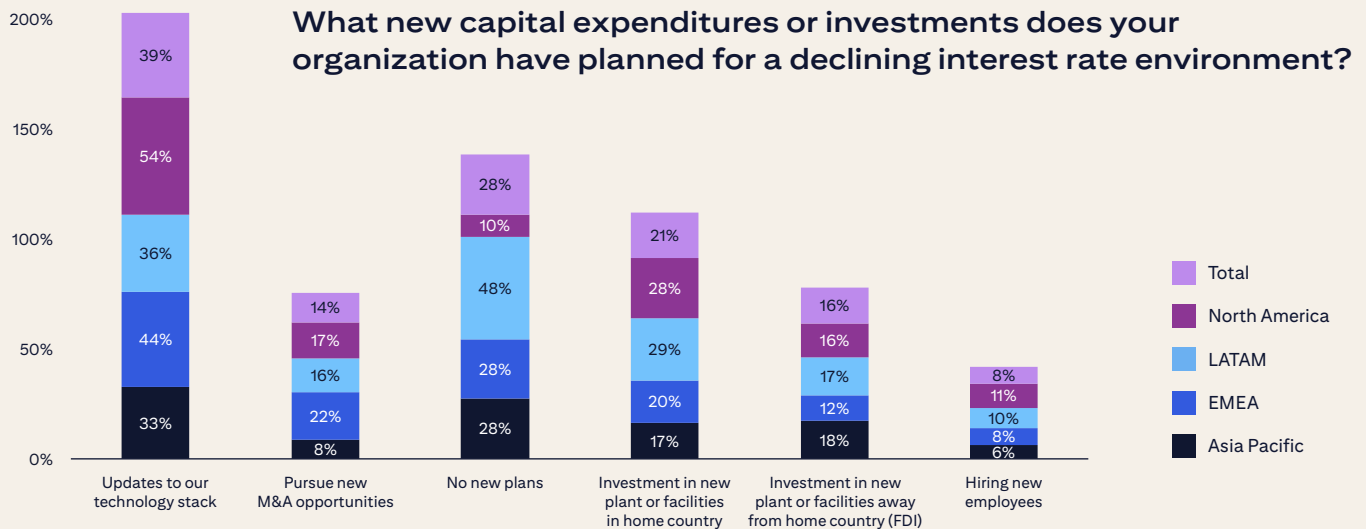


# Capital Deployment Framework

There is a tradeoff when allocating capital to one investment or opportunity as it prevents capital from being used on another. As such, investment, distribution, and financing decisions should be considered holistically.



Source: Citi Financial Strategy Group



Note: Responses sum to over 100% due to multiple responses being enabled Source: East & Partners Large Corporate Survey 2024, Citi Treasury and Trade Solutions

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## Trump 2.0 and Global Supply Chains

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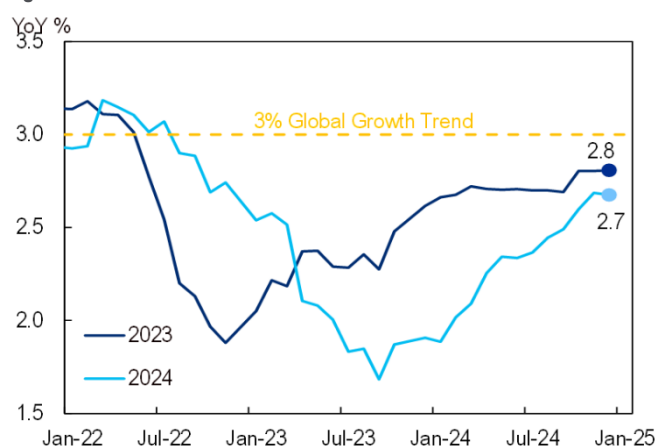
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The global economic backdrop has been defined by surprising resilience over the last few years. In both 2023 and 2024, we started out the year with bearish expectations for global growth only to find ourselves consistently marking up our forecasts (Figure 1). All told, in both years the global economy looks to have grown in the vicinity of 2.75%, just a notch below its long-term trend.

Over both periods, our largest forecasting errors for major economies came from the United States, which has benefited from robust consumer spending and a healthy corporate sector (Figure 2). Still, the U.S. has not been the sole source of these upgrades as other major economies such as the euro area and UK have also outperformed our expectations. As we go into 2025, the global economy looks poised for another year of near-trend performance.

Figure 1. Evolution of Citi Global Growth Forecast



Source: Citi Research

Figure 2. Citi Real GDP Growth: Forecast Revisions

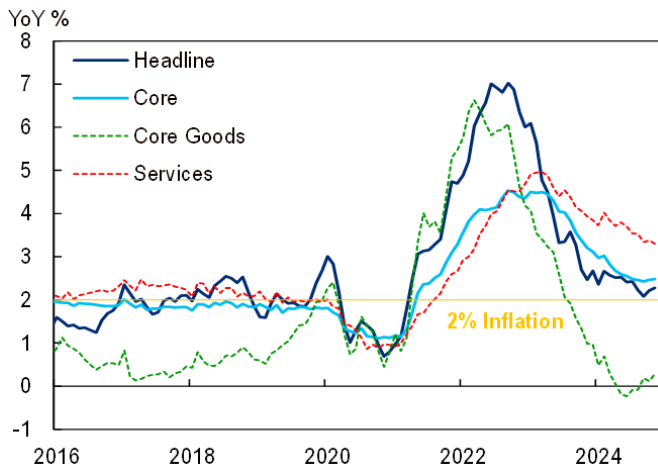
	Change Since (Pct Pts)	
	Sept '22	Sept '23
	2023	2024
<b>Global</b>	<b>0.9</b>	<b>1.0</b>
US	2.2	2.5
EA	1.0	0.9
UK	1.0	1.5
Other DM	0.0	0.1
China	-0.9	0.4
EM ex China	0.5	0.4

Source: Citi Research

Inflation pressures meanwhile have eased appreciably over the last several quarters. Global headline inflation, which includes all goods and services, is close to 2.5% as energy, food, and goods inflation are all running near or below pre-pandemic levels (Figure 3). Core inflation, which excludes food and energy, has trended down as well but is a notch more elevated due to the relatively slow decline in services inflation. Services inflations should continue cooling toward target as labor markets loosen further, consumers rotate more spending toward goods, and global growth continues to run a bit below trend. This should provide scope for central banks to continue lowering rates this year (Figure 4).



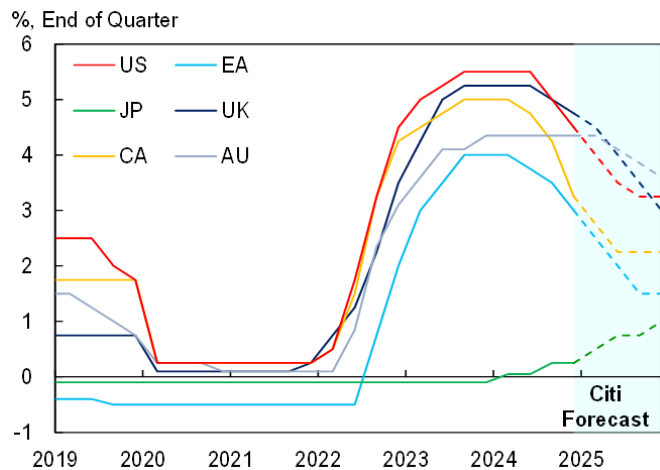
Figure 3. Global Inflation\*



\*Headline & core cover 15 economies; goods & services cover 12 economies.

Source: Citi Research, National Statistical Sources, Haver Analytics

Figure 4. DM Policy Rates

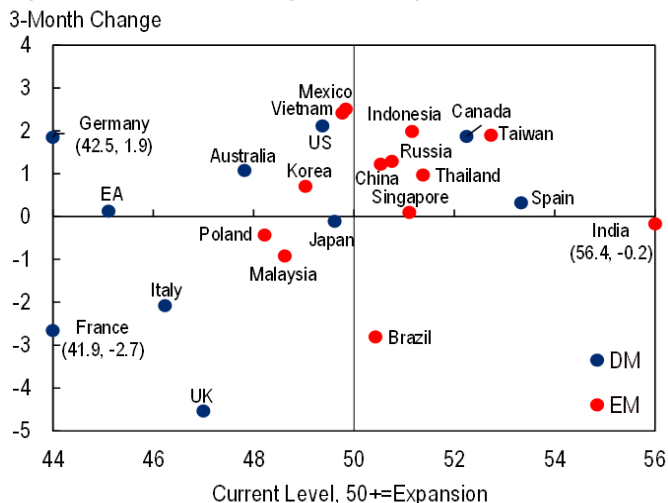


Source: Citi Research, National Statistical Sources, Haver Analytics

The backdrop for global goods sectors suggests that goods inflation is unlikely to reignite. Global manufacturing activity remains soft due to restrained activity in developed markets. The Purchasing Managers' Index (PMI) for global manufacturing has been hovering near or below 50 for much of the last few years. At the country-level, manufacturing PMIs for most developed markets are below 50, and Germany's PMI still signals deep struggles within the sector (Figure 5). Industrial production and trade volumes for developed markets have similarly shown little growth in this cycle.

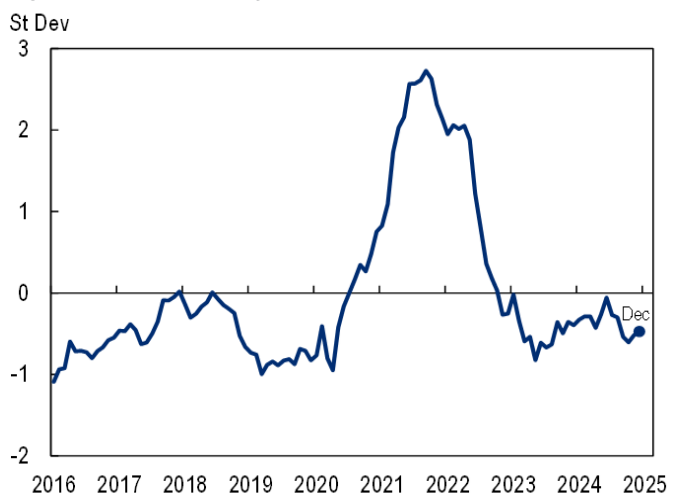
The relative softness in global goods demand is also reflected in our own supply chain pressure index, which is currently running near its pre-pandemic average (Figure 6). This index has tracked the contours of global goods inflation in this cycle fairly well and similarly suggests goods inflation should stay near or below pre-pandemic levels in coming months.

Figure 5. Global Manufacturing PMI: Country-Level Detail



Source: Citi Research, S&P Global, Haver Analytics

Figure 6. Citi Global Supply Chain Pressure Index



Source: Citi Research

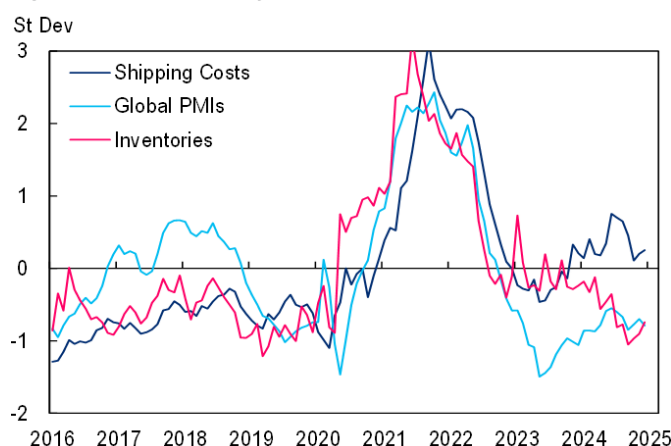


## A Look at Recent Supply Chain Pressures

Our supply chain pressure index is built using data from the global PMIs, inventories, and shipping costs (Figure 7). The data shows modest pressures on global supply chains, but there are also important stories within each category.

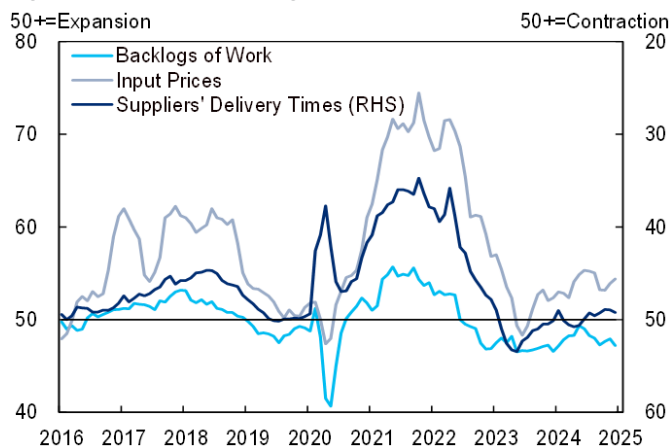
The PMI sub-index includes three indicators – backlogs of work, input prices, and supplier delivery times (Figure 8). All three components have improved markedly from recent stresses and are running near or below their pre-pandemic average. In addition, the components have moved within a tight range over the last year.

**Figure 7. Citi Global Supply Chain Pressure Sub-Indexes**



Source: Citi Research

**Figure 8. Global Manufacturing PMIs: Selected Components**



Source: Citi Research, S&P Global, Haver Analytics

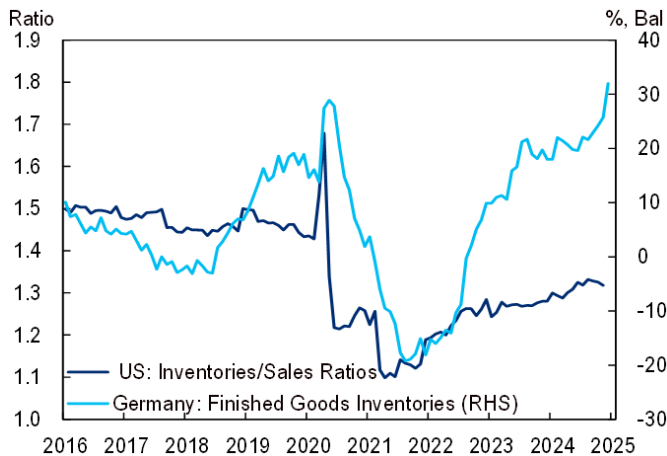
Figure 9 highlights key components of our inventory sub-index. The German IFO indicator for finished goods inventories turned positive in the second half of 2022 and continued to rise sharply through mid-2023. It has been drifting higher and is currently near its highest level in the last decade, suggesting ample or even more than ample inventory levels. Meanwhile, the U.S. inventory to retail sales ratio has been gradually climbing and is now well above cycle lows, but also below pre-pandemic averages reflecting solid sales growth even as inventories have climbed.<sup>1</sup>

A variety of shipping costs measures are highlighted in Figure 10. During the pandemic, some key shipping costs increased ten-fold or even more and were a major contributor to heightened supply chain pressures. Throughout much of 2023, shipping costs had fallen to levels that were close to and even below 2019 levels.

However, shipping costs began to rise at the end of 2023 as the conflict in the Middle East spilled over into attacks on ships in the Red Sea. These pressures were exacerbated at times by the front-running of exports by Chinese producers to get ahead of potential future tariffs. Still, even at their worst points in 2024, shipping costs came nowhere near the heights reached during the pandemic. In addition, net costs have come down in recent quarters in part because shipping capacity has been expanded.

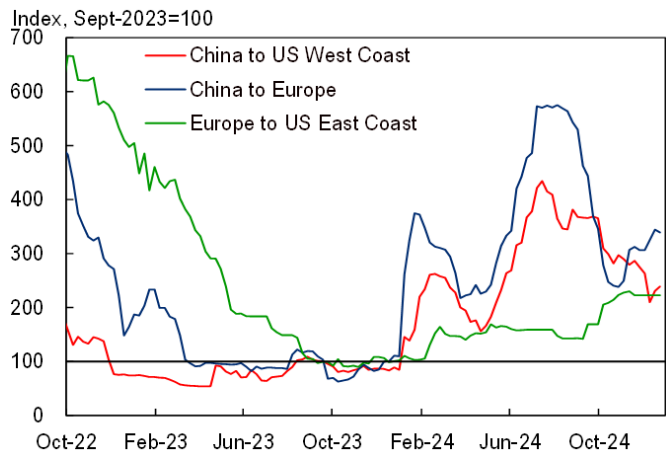
<sup>1</sup> The inventories subcomponent also includes the stock of finished goods readings from the global manufacturing PMI which is currently running close to pre-pandemic levels.

Figure 9. Inventory indicators: U.S. &amp; Germany



Source: Citi Research, Census Bureau, Ifo, Haver Analytics

Figure 10. Container Shipping Costs



Source: Citi Research, Freightos

## Tariffs and Supply Chain Pressures

Supply chain pressures are at historically modest levels at the start of 2025. However, there continues to be several key risks ahead. First and foremost is President Trump's tariffs. While campaigning, he promised across-the-board tariffs of 10% or higher, as well as a 60% tariff on China. Since taking office, Trump has continued to have a robust tone on the subject by, for example, threatening 25% tariffs on Canada and Mexico and implementing 10% tariffs on China.

Although the tariffs on Canada and Mexico are on hold, uncertainty around tariffs remain high, and we await further gyrations in the Administration's policies. Even more recently, President Trump signed an order directing his Administration to study reciprocal tariffs on trading partners – an effort that if implemented would mean increasing US tariffs to match cases where tariffs on the US from other countries are higher. We continue to believe that, at least in part, Trump will use tariffs as a negotiating tool to push other countries to cooperate with his key priorities.

In our view of potential Trump 2.0 policies, tariffs pose the largest downside risks to U.S. and global economic growth. Tariffs act as a stagflationary shock for the U.S. economy – lowering economic growth and at least initially boosting inflation. Were Trump, for example, to implement a 10% across the board tariff and major trading partners responded with reciprocal tariffs, the effect could be a 1.5 ppt hit to U.S. real GDP based on simulations we have conducted using the Oxford economic model. The rest of the world would also feel substantial downward pressure to economic growth as would global trade (Figure 11).<sup>2</sup> Even Trump's more targeted tariffs on Canada, Mexico, and China would create sizable and durable headwinds for all countries involved including the U.S. (Figure 12).<sup>3</sup>

As highlighted in our supply chain pressure index, tariffs from Trump's first term were relatively manageable and the observed strains were muted compared with the stresses recorded during the pandemic. We expect the strains under Trump 2.0 to also be manageable, though the risk of more severe challenges is now larger.

<sup>2</sup> See: [Global Economics – On quantifying shocks to the global economy](#) and [Global Economics – Shock simulation: A US tariff increase with retaliation](#).

<sup>3</sup> See: [Global Economics – Shock simulation: Tariffs on US imports from Canada, Mexico, and China](#)

The effective U.S. tariff rate in Trump's first term increased by only 1.5 pct pts. That figure is likely a fair amount lower than what will be experienced in 2025. Trump's 10% tariff on China as well as 25% tariffs on steel and aluminum alone raise the effective US tariff rate by roughly 1.5 pct pts.

The risks to supply chains would be amplified if tariffs come larger and faster than expected – particularly if Trump ends up putting a 60% tariff on China. Such tariffs would immediately disrupt supply chains that use inputs from China. The upshot would be delays in production and shortages as firms scrambled to find new suppliers. The effects would hit China's economy hard, but they would be symmetrically disruptive for the U.S. That said, smaller tariffs on China – or allowing the effects to be phased in – would give U.S. producers time to adjust.

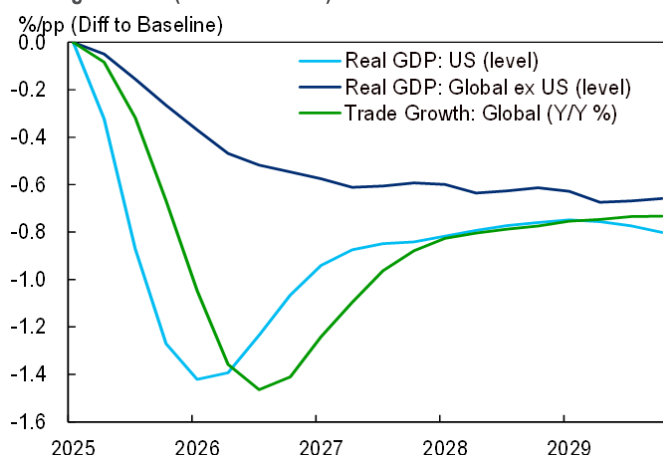
Front-running of exports could potentially occur in coming months, especially if Trump's tariff threats on major trading partners continue. This front-running runs the risk of boosting shipping costs as we saw in 2024 and also potentially leading to some delays and challenges at US ports. Given the favorable starting point for supply chain pressures, such strains are also likely to prove manageable.

## Longer-term Considerations for Supply Chains

In the years before the pandemic, supply chain management was predicated on the beliefs that supply chains were robust, reliable, and cost effective and that the demand for goods would be relatively smooth and predictable. The challenges faced by manufacturing firms during the pandemic upended these assumptions, and as a result, supply chain practices have been adjusting to incorporate the lessons of this cycle.

One of the important considerations is where to house production. Ongoing tensions between the U.S. and China have highlighted the risks of overly concentrating supply chains in one location. Firms are increasingly pursuing China Plus One strategies and moving production back home or to closer locations. This theme of reorientation can be seen in global foreign direct investment flows (Figure 13). These flows have moved away from China toward other destinations such as the U.S. and emerging markets such as India, Mexico, and Vietnam.

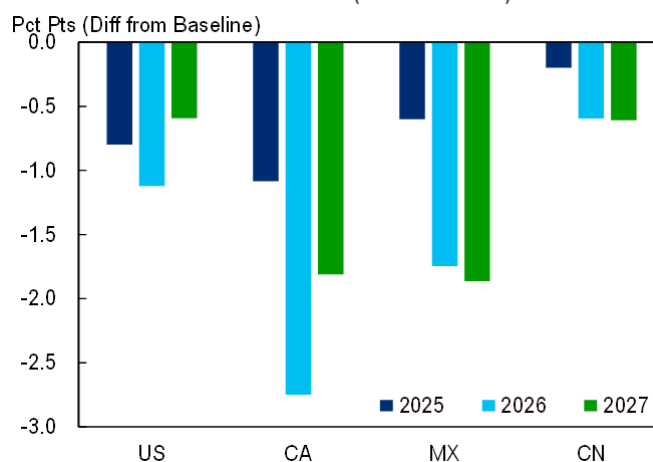
**Figure 11. Simulation: 10 Pct Pt Increase in US Tariffs on Major Trading Partners (with Retaliation)\***



\*Simulation ran with Oxford Economics global model. Major trading partners are assumed to respond with 10% tariffs on the US.

Source: Citi Research, Oxford Economics, Haver Analytics

**Figure 12. Simulation: Real GDP Effects of US Tariffs of 25% on Canada & Mexico and 10% on China (with Retaliation)\***

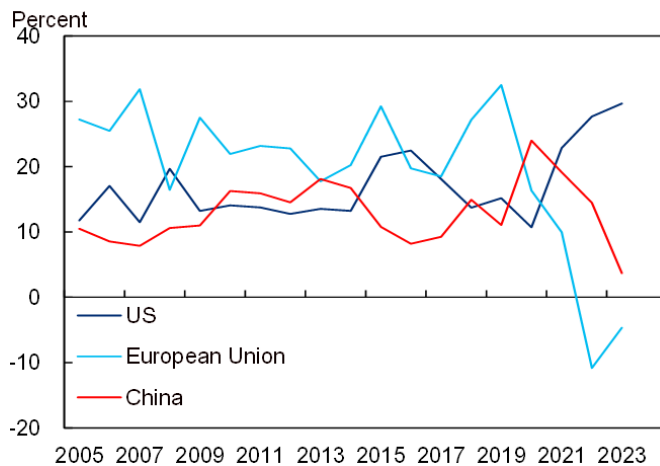


\*Simulation ran with Oxford Economics global model. Retaliation includes tariffs on US of 10% by Mexico & Canada and 5% by China.

Source: Citi Research, Oxford Economics, Haver Analytics

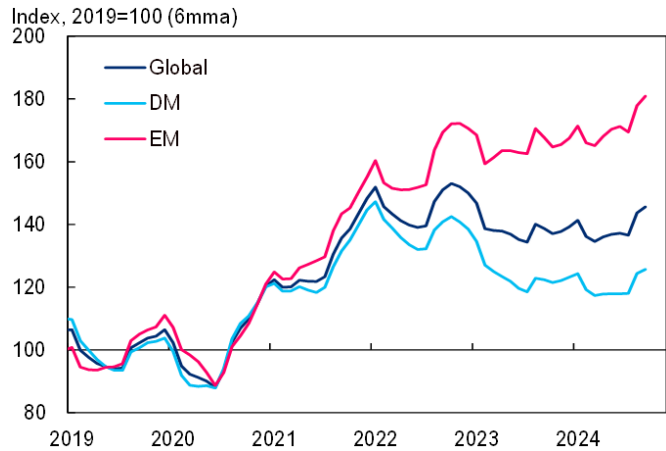
Given these challenges, China has been increasing connectivity with many emerging market economies. These patterns can be seen in ongoing sizable investments by China in economies in Africa as well as trade flows between China and emerging markets (Figure 14). Still, the decreasing flows between China and developed markets will continue to present headwinds for China's economy. Moreover, some of the increased trade between China and other EMs is also trade that gets rerouted to the U.S. (particularly through Mexico), and these flows are at risk of increased scrutiny from the Trump Administration.

**Figure 13. Country FDI Inflows (% of Global Inflows)**



Source: : Citi Research, OECD

**Figure 14 . China Nominal Exports (By Region)**



\*Comprised of 36 countries.

Source: Citi Research, IMF, Haver Analytics

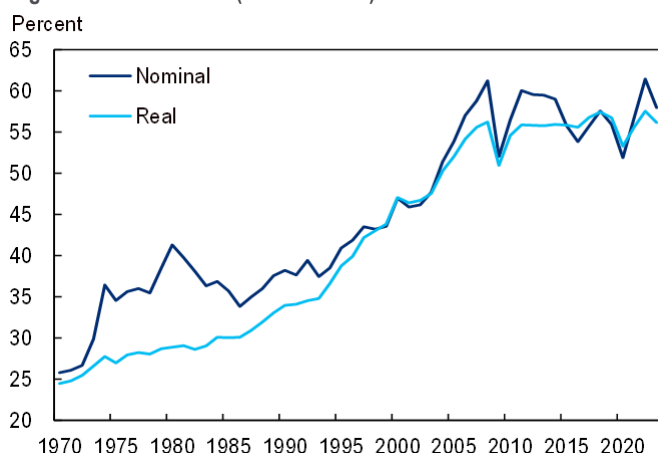
All told, we do not subscribe to the view that the world is de-globalizing on a large scale. Global trade to GDP, for example, has failed to gain upward momentum in recent years, but it still running on par with levels observed in recent decades (Figure 15). In addition, certain aspects of trade have continued to grow and proliferate – particularly high-tech services (Figure 16). Rather than de-globalization, we see a reprofiling of globalization to be more services-oriented and less dependent on China. While China will likely continue to play a sizable role in global trade and production going forward, the direction of travel toward a less China-centric system is clear.

While the possibility of sustained higher US tariffs under President Trump as well as the likelihood of retaliatory tariffs from trading partners risk further hampering global trade and integration, ongoing globalization is also supported by a range of strong tailwinds. In addition to improvements in technology, rising consumer incomes, efforts by firms and investors to increase efficiency and profits, and the desire of human beings to explore and improve their lives have all been historical drivers of globalization. None of these forces are likely to be easily blunted.<sup>4</sup>

The readjustment of global production away from China could potentially accelerate under the second Trump Administration given the likelihood of increasing tariffs on China and President Trump's more general goal of revitalizing the U.S. manufacturing sector. Sparking a manufacturing renaissance in the U.S. was also a focus of the Biden Administration, and this was one of the key objectives of both the

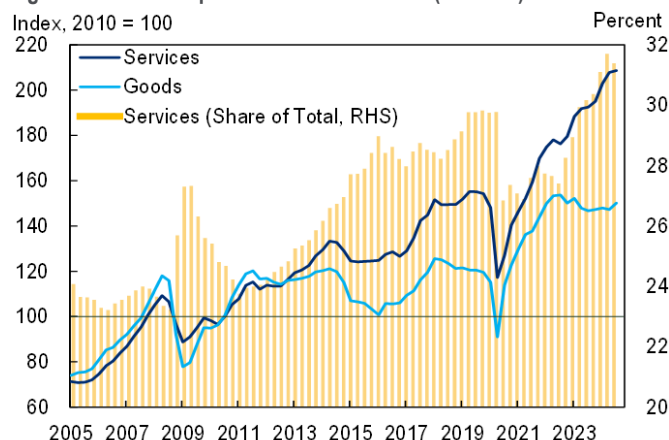
<sup>4</sup> For a discussion on the history and potential future of globalization, see: [Global Economics – Globalization vs. Deglobalization: What's Next?](#)

Figure 15. Global Trade (Share of GDP)\*



\*Trade is exports and imports of goods & services.  
Source: Citi Research, World Bank, Haver Analytics

Figure 16. Global Exports: Goods &amp; Services (Nominal)\*



Source: : Citi Research, OECD, Haver Analytics

CHIPS Act and the IRA. President Trump is likely to take other policy avenues to support the sector, perhaps through the recently announced US national investment fund, but the end goal will be broadly similar. Other major economies are also likely to pursue policies to support domestic production.

The major fiscal packages passed under President Biden look to have substantially boosted construction spending in the U.S. manufacturing sector. Still, reshoring production to the U.S. as well as other major developed markets faces significant challenges. Structurally, many of the headwinds that have restrained the U.S. manufacturing sector for decades remain. U.S. wage levels exceed those in other parts of the world, so labor-intensive manufacturing will naturally flow elsewhere.

Manufacturing's share of the US economy has continued to run near historically low levels in recent years with few signs of a material turnaround. This being said, on top of the likely ongoing support from policymakers, there are a range of factors that make a renaissance in the US manufacturing sector possible including cheap natural gas and the leading role the US plays in AI technologies.

Finally, a major concern is that ongoing adjustments in supply chains will be inflationary. We remain skeptical of this narrative as firms are also looking to incorporate new technologies into their supply chains and will find ways to increase efficiency to mitigate any potential new or heightened costs. Firms, for example, will increasingly collect and harness data at each stage of the supply chain and use tools such as AI and machine learning to improve their processes. The scope for improvements is vast and may include better tracking of goods in transit, improving warehouse operations, and choosing suppliers more effectively.

Moreover, supply chains have been shifting for years now and inflationary pressures in goods sectors has remained exceptionally muted. If there were to be a big shock, at this stage we'd likely already see signs of it in price pressures.

All told, the last few years have shown just how flexible and adaptable suppliers can be in the face of challenges, and this is likely to continue in the coming years.

## Global Trade: A World in Flux

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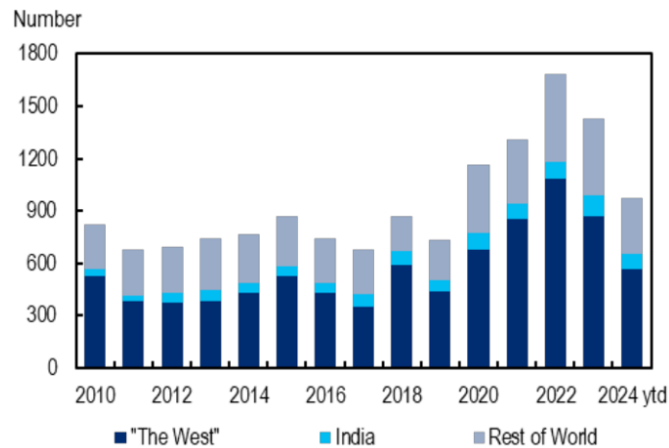
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Geopolitical factors are increasingly driving global commerce as countries strive to safeguard their interests and manage risks, while also capitalizing on new opportunities resulting from shifts in global trading patterns.

A previous Citi GPS report – [Global Trade in Flux: Politics, Policy and the Reconfiguration of Supply Chains](#) (2024) – noted a rise in harmful goods trade interventions. Western de-risking efforts likely began because of tariffs implemented during the first Trump administration, but China's position on the Russia-Ukraine invasion may have been the catalyst for other Western countries to begin diversifying away from China<sup>5</sup>.

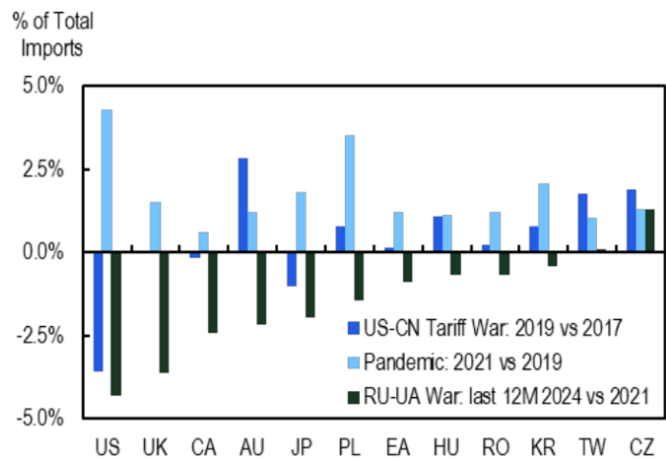
In this section of the report, we use external sources and Citi's proprietary global payments data to look at global trading patterns in recent years, principally through a China-U.S. lens. The objective is twofold: Firstly, to understand the extent to which the perception of decoupling (effectively, deglobalization) is evident, and whether it has been accelerated by the imposition of tariffs; and secondly, how trade corridors are being reconfigured as a result.

**Figure 17. Number of Harmful Goods Trade Interventions Affecting China<sup>6</sup>**



Source: Global Trade Alert, Citi Research; Note: \*Data downloaded on 3 Nov 2024

**Figure 18. Change in the Share of Imports Coming from China, by 2-year Regimes<sup>7</sup>**



Source: Haver, Citi Research

<sup>5</sup> Citi GPS, Global Trade in Flux: Politics, Policy and the Reconfiguration of Supply Chains, 2024

<sup>6</sup> Citi GPS, Global Trade in Flux: Politics, Policy and the Reconfiguration of Supply Chains, 2024

<sup>7</sup> Citi GPS, Global Trade in Flux: Politics, Policy and the Reconfiguration of Supply Chains, 2024

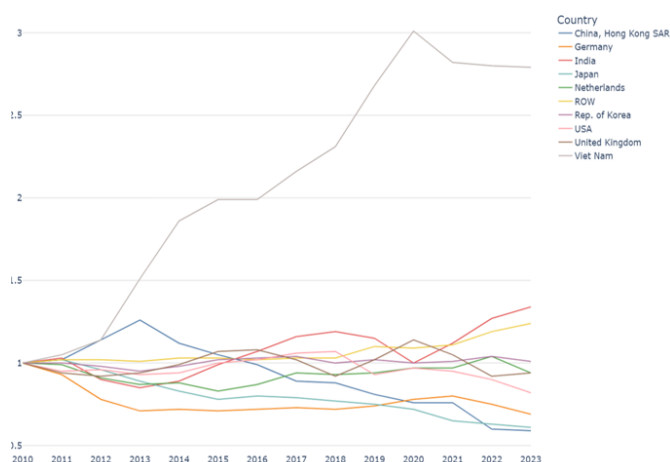
## The China-U.S. Relationship

China has established itself as ‘the world’s factory’ and is a crucial part of the global economy. Before 1978 foreign direct investment (FDI) was heavily restricted in China, however economic reform through the late 1970s and early 1980s opened the country to new FDI, ushering in a new era as companies began to offshore manufacturing to China.<sup>8</sup> More recently, its evolving geopolitical relationships, particularly with the U.S. and Russia, have helped to change trading patterns.

The shift in geopolitical and trade relationship between China and the U.S. began with the first administration of President Trump (2017-2021). But while the rhetoric between the two countries may have become more combative under Trump, there was a lag between his election and the escalation of tariffs.

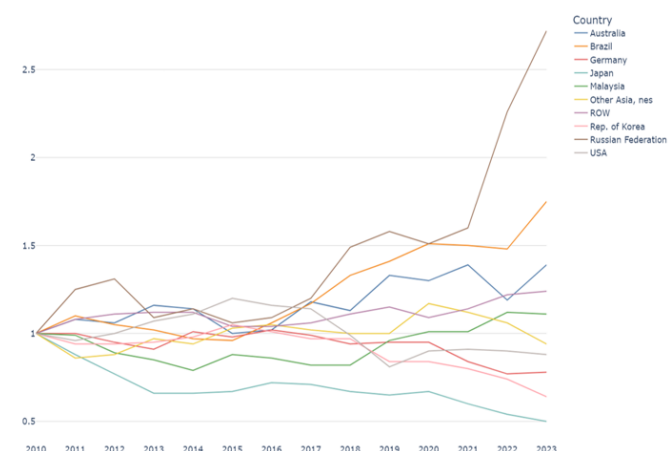
In 2018, the U.S. government imposed bilateral tariff increases on various Chinese goods, citing concerns over China's inadequate intellectual property protections and its role in widening the U.S. trade deficit. This move triggered a retaliatory cycle of tariffs between the two nations. By the end of 2019, most goods exchanged between them faced additional tariffs<sup>9</sup>. What impact did this have on trade?

Figure 19. Breakdown of Exports from China (Rebased to 2010)



Source: UN ComTrade, Citi Global Data Insights

Figure 20. Breakdown of Imports into China (Rebased to 2010)



Source: UN ComTrade, Citi Global Data Insights

The increased tariffs prompted no significant shift in China's exports away from the U.S. in dollar terms, and the U.S. remains the largest single market for Chinese exports by some distance. However, China as a percentage of total U.S. trade has decreased significantly and a more notable decline is discernible in Figure 19 which shows exports with USD values rebased to 2010.<sup>10</sup>

This decline continued after Trump had left office, partly because Biden did not remove many of the tariffs. In addition, measures implemented by Biden, such as the CHIPS and Inflation Reduction Acts, effectively had the same impact as Trump's measures: reduced trade.

<sup>8</sup> IMF, China: Competing in the Global Economy, 2003

<sup>9</sup> FRB, Global trade patterns in the wake of the 2018-2019 U.S.-China tariff hikes, 2024

<sup>10</sup> Citi Velocity, Global Economics – Globalization vs. Deglobalization: What's Next? February 2024



In dollar terms trade fell only slightly during the Trump administration before bouncing back under Biden. Overall, the U.S. remains the most significant single country for imports into China (alongside South Korea). However, stripping out FX variations shows that U.S. imports are notably lower. An important component of this decline is the drop-off in agricultural imports by China from the U.S. in response to tariffs and as part of a deliberate strategy by Beijing to reduce its reliance on U.S. farm goods to enhance food security<sup>11</sup>.

During Trump's first term, the U.S. imposed tariffs on \$380 billion worth of Chinese goods, prompting Beijing to retaliate<sup>12</sup>. By 2024, the U.S. share of China's soybean imports had fallen from 40% in 2016 to 18%, with Brazil becoming China's top supplier of soybeans and corn. Overall, China's agricultural imports from the U.S. fell from \$43 billion in 2022 to \$34 billion in 2023<sup>13</sup>.

## China's Relationships with the Rest of the World

While India and South Korea have become more important destinations for China's exports, Vietnam stands out most prominently once FX movements are discounted.

**Vietnam:** The most obvious explanation is the growing trading relationship between China and Vietnam as their economies become more integrated. However, it is also important to consider that some Chinese exports may now be routed via third countries such as Vietnam and Brazil. Indeed, Chinese companies are believed to have established extensive operations in Vietnam and elsewhere in South-east Asia with the explicit goal of circumventing tariffs<sup>14</sup>.

**Latin America:** An analysis of Citi's proprietary, global corporate payment flows by Citi Global Data Insights (CGDI) finds a sharp increase in payments remitted from North America to subsidiaries of Chinese companies located in Latam, of which Brazil, Mexico and Ecuador were the top beneficiaries (Figure 21). The payments received by Ecuador relative to Mexico is particularly interesting as Mexico's economy is roughly 15x larger than that of Ecuador.<sup>15</sup>

This is reflected in U.S. import data: China's share of U.S. goods imports reached a peak of 22% in 2017, before declining to 14% by December 2023, except for a spike during the pandemic when U.S. demand for Chinese goods surged<sup>16</sup>.

However, analysis from the U.S. Federal Reserve indicates that many U.S. trading partners have increased their imports from China of the goods that the U.S. is importing less of directly. As a result, the U.S.'s "indirect reliance on China may have fallen less than direct reliance as measured by trade flows"<sup>17</sup>.

**Russia:** Another important trend is China's growing trade with Russia since the Kremlin's full-scale invasion of Ukraine in February 2022. This has been largely driven by China's rising energy imports, which have made Russia its top oil supplier.

<sup>11</sup> Reuters, How China reduced its reliance on U.S. farm imports, softening trade war risks, 2024

<sup>12</sup> Tax Foundation, Trump Tariffs: Tracking the Economic Impact of the Trump Trade War, 2025

<sup>13</sup> Reuters, How China reduced its reliance on U.S. farm imports, softening trade war risks, 2024

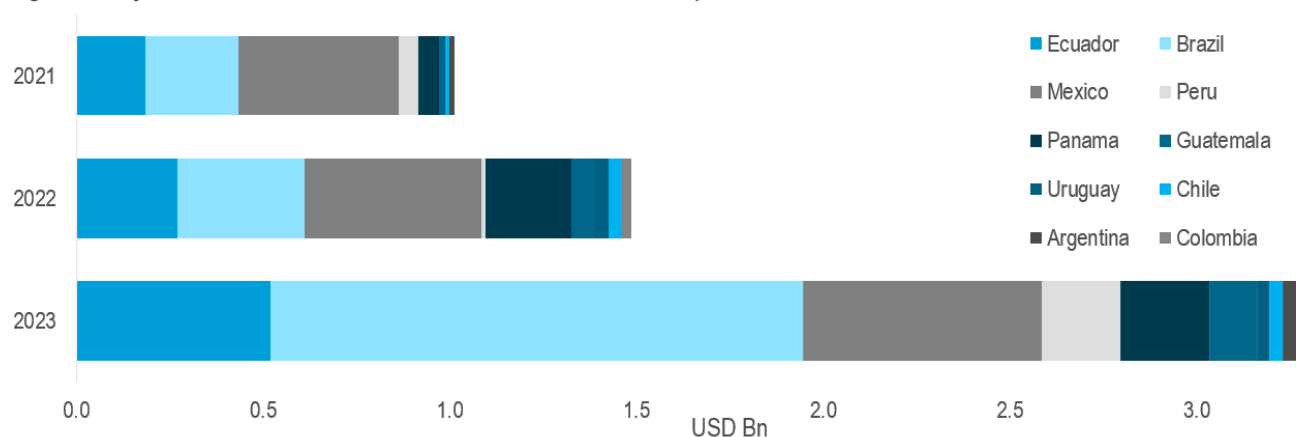
<sup>14</sup> Fulcrum, Vietnam, China and Rerouting: When Perceptions Matter as Much as Reality, 2024

<sup>15</sup> The World Bank, World Development Indicators – GDP (current U.S.\$), 2025

<sup>16</sup> FRB, Global trade patterns in the wake of the 2018-2019 U.S.-China tariff hikes, 2024

<sup>17</sup> FRB, Global trade patterns in the wake of the 2018-2019 U.S.-China tariff hikes, 2024

Figure 21. Payments from North America to Subsidiaries of Chinese Companies in Latam



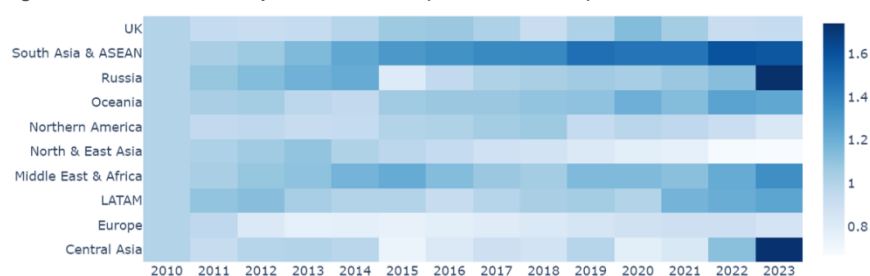
Source: Citi Treasury and Trade Solutions, Citi Global Data Insights

In the last full year before the invasion, China imported oil worth \$40.5 billion from Russia. This rose to \$54.4 billion in 2022 (86.2 million tons) and further increased to \$60.7 billion in 2023 (107 million tons)<sup>18,19</sup>. China has increased imports of natural gas, coal, and other hydrocarbons, including diesel, from Russia at a faster pace even than oil.<sup>20</sup>

Importantly, the two countries also conduct trade through Central Asian nations<sup>21</sup> in addition to their direct bilateral exchanges: the dollar value of China's imports from Russia probably understates the full extent of their economic relationship.

While China's exports to Russia are too low in global terms to be broken out in charts that show the country's main trading partners. However, they are visible in Figure 22 which has been rebased to 2010 to eliminate the impact of FX moves.

Figure 22. Breakdown of Exports from China (Rebased to 2010)



Source: UN ComTrade, Citi Global Data Insights

According to observers, Russia's imports of industrial goods from China play a crucial role in supporting its economic, political, and military efforts, at least in the short term. These imports help prevent shortages, stabilize living standards to maintain political support for the war, and, in some cases, enhance military

<sup>18</sup> Trading Economics, China Imports from Russia of Crude Oil, 2025

<sup>19</sup> Energy Institute, Statistical Review of World Energy, 2022-2024

<sup>20</sup> Atlantic Council, Indirect China-Russia trade is bolstering Moscow's invasion of Ukraine, 2024

<sup>21</sup> Atlantic Council, Indirect China-Russia trade is bolstering Moscow's invasion of Ukraine, 2024

capabilities.<sup>22</sup> China's exports to Russia – such as machinery, vehicle-related components, and dual-use technologies – have therefore been essential to sustaining the Kremlin's war effort<sup>23</sup>.

Just as with China's imports of oil, Russia receives Chinese exports both directly and indirectly. This may account for the sharp increase in exports from China to Central Asia in the heat map (Figure 9). For instance, Kyrgyzstan now spends a quarter of its GDP on auto imports from China while China's exports of vehicle spare parts have increased 642% since 2021. In reality, many Chinese vehicle-related exports are ultimately headed to Russia<sup>24</sup>.

**Australia:** Australia shows that more fraught trading relationships do not have to be a one-way street. Australia was effectively locked out of China, with restrictions imposed on imports of key commodities, including coal, barley, and wine, following its call for an independent investigation into the origins of COVID-19. Since a new government took office in Canberra in 2022, almost all these restrictions have been lifted, with the final barriers on red meat and lobster removed in 2024<sup>25</sup>.

## Growing Intra-regional Trade

A broader look at changes in global trading trends from 2019 to 2022 highlights the centrality of China to global trade. Between 2019 and 2022, flows (mostly energy products) from the Middle East and Africa to North and East Asia (principally China) increased by 56%, while those in the opposite direction grew 19%. Trade and services from China to Latin America rose 44%, with flows from Latin America to China growing 40%.

China has courted Latin American countries assiduously for decades. Its goal has been to secure access to agricultural products and raw materials to fuel its industrial growth. In more recent years, resources such as lithium have become critical as China has become a major manufacturer of batteries for devices ranging from cellphones to electrical vehicles.

Interests in specific industries or products are also proving to be a guiding force in driving intra-regional trading relationships. Semiconductors have been the impetus for many countries to enact public policies to bolster access to vital semiconductor technology. Critical minerals have emerged as another key area of focus for countries and is an example of where countries are working together in support of a common goal. The Mineral Security Partnership (MSP) brings together 14 countries<sup>26</sup> and the European Union with the aim to “accelerate the development of diverse and sustainable critical energy minerals supply chains through working with host governments and industry to facilitate targeted financial and diplomatic support for strategic projects along the value chain”<sup>27</sup>.

<sup>22</sup> Atlantic Council, Indirect China-Russia trade is bolstering Moscow's invasion of Ukraine, 2024

<sup>23</sup> Carnegie Politika, Behind the Scenes: China's Increasing Role in Russia's Defense Industry, 2024

<sup>24</sup> Atlantic Council, Indirect China-Russia trade is bolstering Moscow's invasion of Ukraine, 2024

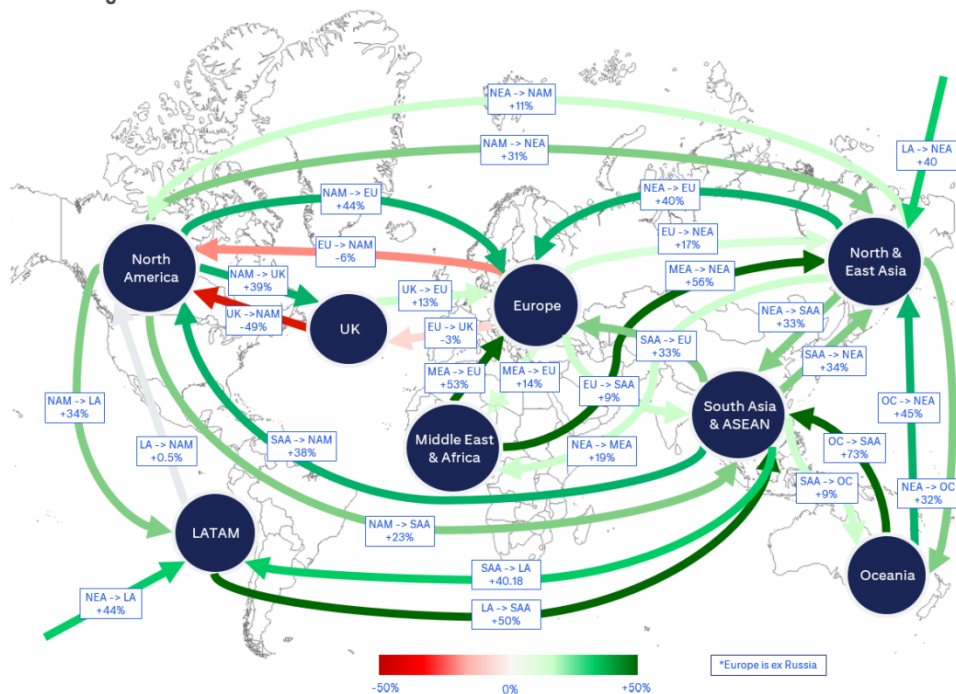
<sup>25</sup> Reuters, China lifts final trade restrictions on Australian meat processors, 2024

<sup>26</sup> Partner countries include: Australia, Canada, Estonia, Finland, France, Germany, India, Italy, Japan, Norway, the Republic of Korea, Sweden, the United Kingdom, the United States, and the European Union (represented by the European Commission)

<sup>27</sup> U.S. Department of State, Minerals Security Partnership, 2024

Since its first trade agreement with Chile in 2005, China has signed free-trade agreements with Chile, Costa Rica, Ecuador, Nicaragua, and Peru and established strategic partnerships with at least seven countries. As well as addressing trade and tariffs, some of the agreements facilitate the international use of the yuan,<sup>28</sup> a particular source of discontent for the new Trump administration, which is keen to preserve the unique role of the dollar in international trade.

Figure 23. 2019 to 2022 % Change Global Trade and Services Flows



Source: UN ComTrade, Citi Global Data Insights

While China is clearly at the heart of global trade, it also considers itself part of the Global South, which enjoyed a broader growth in trade and services flows between 2019 and 2022. For instance, trade from Latin America to the 10 countries of the Association of Southeast Asian Nations (ASEAN) rose 50%, while trade in the opposite direction grew over 40%.

Other notable trends include the dramatic growth in trade and services between 2019 and 2022 from Oceania (principally Australia) to South Asia and ASEAN. In 2023, Australia's two-way trade with ASEAN reached \$183.4 billion, surpassing its trade with Japan, the U.S., or the EU. These strong economic ties are bolstered by regional and bilateral trade agreements, including the ASEAN-Australia-New Zealand FTA and the Regional Comprehensive Economic Partnership, providing pathways for Australian businesses to access ASEAN markets.<sup>29</sup>

<sup>28</sup> China Briefing, China-Latin America and the Caribbean: Investment, Trade, and Future Prospects, 2023

<sup>29</sup> Australian Government Department of Foreign Affairs and Trade, ASEAN and Australia, 2024

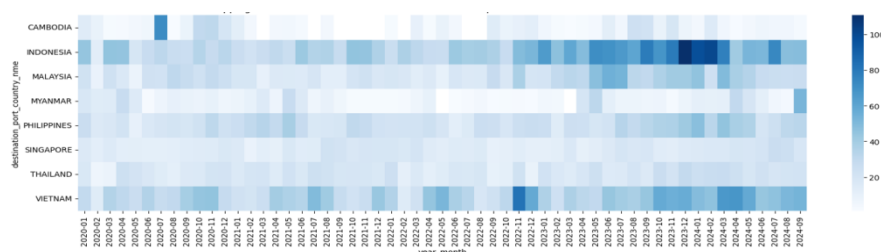
## China's Trade Dynamics

China's growth since the 1990s has seen it forge ever deeper relationships with its neighbors in ASEAN and India. China has been ASEAN's largest trading partner since 2009, with trade doubling between 2010 and 2019 to account for 18% of ASEAN's total, and nearly quadrupling since the 2005 ASEAN-China Trade in Goods Agreement.<sup>30</sup>

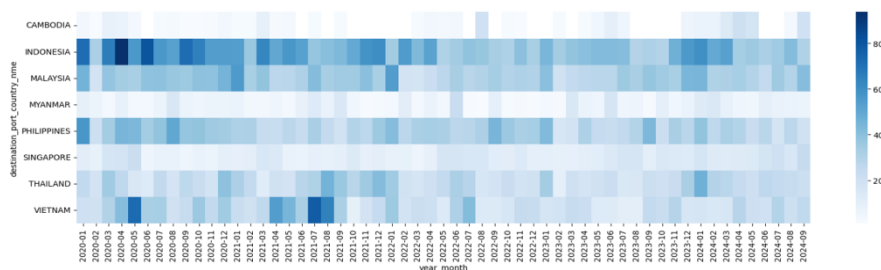
China has particularly strong trade ties with Indonesia, which accounts for 22.58% of Chinese exports and 28.52% of imports within ASEAN in 2022. From 2019 to 2022, China's imports from Indonesia increased by 2.29%, while its exports to Indonesia increased by 5.90%. The heat map in Figure 24, based on shipping data provided by Dun & Bradstreet, shows that China exports large volumes of non-durable and durable goods as well as electronics to Indonesia.

**Figure 24. Movement of Goods from China to ASEAN countries**

**Shipping Trend for Wholesale Trade – Durable Goods companies from China to ASEAN Countries**



**Shipping Trend for Wholesale Trade – Nondurable Goods companies from China to ASEAN Countries**



Note: Based on the use of Harmonized System (HS) codes, a system of product classifications.

Source: Dun & Bradstreet, Citi Global Data Insights

Vietnam is also critical to China, accounting for 32.79% of regional imports. Given its low labor costs relative to China, Vietnam has become deeply integrated into many Chinese firms' supply chains. China's imports from Vietnam increased by 2.97% from 2019 to 2022<sup>31</sup>.

China's engagement with its regional superpower rival India remains less expansive. In 2022, India accounted for only 12.96% of China's imports and 3.33% of exports, with imports growing just 0.32% between 2019 and 2022 and exports 2.01%. China and India have a complex relationship. A border dispute in the Himalayan region led to military clashes in 2020–21, and ultimately prompted India to ban TikTok, which had over 200 million Indian users, and more than 50 other Chinese apps citing national security concerns. Since then, India has banned over 200 additional Chinese apps.<sup>32</sup>

<sup>30</sup> Association of Southeast Asian Nations, ASEAN-China Economic Relation, 2024

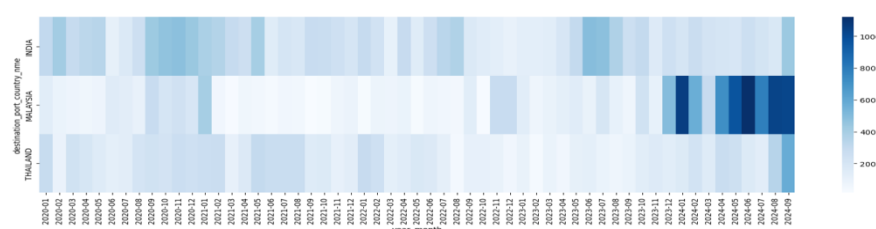
<sup>31</sup> Dun & Bradstreet, 2024

<sup>32</sup> IMD, India and China: Trade allies or a growing rivalry – or both?, 2024

Nevertheless, in 2023–24, China surpassed the U.S. as India's largest trading partner, with total trade reaching \$118.4 billion.<sup>32</sup> However, the relationship is heavily imbalanced. India imports over \$100 billion of goods – especially in telecoms, pharmaceuticals, and advanced technology – from China but exports only \$17 billion.<sup>32</sup> China's exports of electronics and machinery to India are significant.

Another notable trend is that Chinese vehicle exports to Malaysia surged in 2024, driven by major investments such as a \$10 billion deal involving Malaysia's DRB-Hicom to develop an "automotive high-tech valley" in Tanjung Malim. Facing intense domestic competition and punitive tariffs in the U.S. and Europe, Chinese automakers are increasingly targeting emerging EV markets in Southeast Asia.<sup>33</sup>

**Figure 25. Shipping Trend for Vehicles from China to India, Malaysia and Thailand**

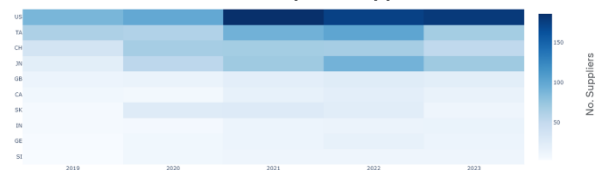


Source: Based on the use of Harmonized System (HS) codes, a system of product classifications.

## Onshoring of Critical Industries Is Accelerating

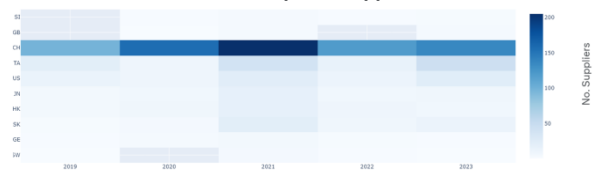
While China's exports and imports indicate that the China-U.S. decoupling narrative is only partly correct – the two countries remain key trading partners – there is evidence of a growing focus on onshoring in critical industries.

**Figure 26. Breakdown of U.S. Computer Suppliers**



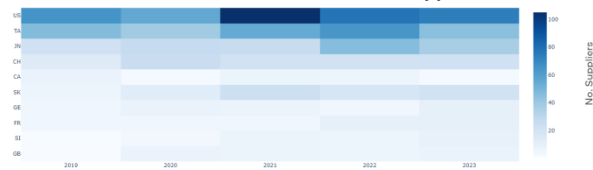
Source: Bloomberg, Citi Global Data Insights

**Figure 28. Breakdown of CH Computer Suppliers**



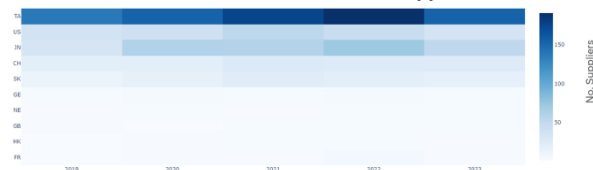
Source: Bloomberg, Citi Global Data Insights

**Figure 27. Breakdown of U.S. Semiconductor Suppliers**



Source: Bloomberg, Citi Global Data Insights

**Figure 29. Breakdown of TW Semiconductor Suppliers**



Source: Bloomberg, Citi Global Data Insights

In both the computer supplies and semiconductor sectors, our analysis based on Bloomberg's supply chain data shows strong signs of onshoring by the U.S., as well as high levels of onshoring by China of computer supplies, and by Taiwan of semiconductors. The context for these developments is the growing concern, especially in the U.S., that the production of computer supplies is overly concentrated in China and, more critically, that the U.S. is almost entirely dependent on Taiwan for semiconductors.

<sup>33</sup> TechNode, Car plants in Malaysia and beyond, 2024

Analysis by the U.S. International Trade Commission estimates that 44.2% of U.S. imports of logic chips (another name for semiconductors) are manufactured in Taiwan. Although Taiwan is a strong U.S. ally, the concern is that in the event of a conflict with China over Taiwan,<sup>34</sup> the U.S. would lose access to such chips, causing prices to spike by up to 59%.<sup>35</sup>

In response, the U.S. has introduced a series of measures aimed at “bringing semiconductor supply chains home, creating jobs, supporting innovation and protecting national security”.<sup>36</sup> These include the CHIPS and Science Act of 2022 and the Building Chips in America Act of 2023, which aims to speed up the development of projects that were perceived to have stalled due to the need for environmental reviews.<sup>37</sup>

Although Taiwan produces advanced chips solely in-country, the country’s manufacturers have production facilities for less complex chips in China, and they have worked extensively with Chinese firms in the past.

In November 2024, TSMC, the world’s largest chipmaker, announced it had suspended production of chips for Chinese semiconductor design firms to ensure alignment with U.S. restrictions on Chinese access to the latest processors.<sup>38</sup> In 2024 it was reported that TSMC plans to start producing two-nanometer chips at a new fabrication facility in Phoenix, Arizona.<sup>39</sup>

Citi TTS data, based on percentage of payment flows, also shows strong evidence of South Korean onshoring and, increasingly, reshoring. Perhaps more surprisingly, the data shows that South Korea is engaging less with the U.S. Payment flows for professional, scientific, and technical services and computer and electronic product manufacturing all show signs of onshoring.

The South Korean government, under the Reshoring Act of 2014, provides incentives and tax benefits to encourage companies to return operations to South Korea. Reshored companies are exempt from corporate taxes for seven years, followed by a 50% tax reduction for the next three years.<sup>40</sup> In May 2024, the South Korean government introduced its Reshoring Company Support Strategy 2.0 to boost the reshoring of companies in advanced industries. This policy includes enhanced incentives and an expanded definition of reshoring eligibility. Notably, the funding cap was increased for companies specializing in high-tech strategic technologies.<sup>41</sup>

<sup>34</sup> Council on Foreign Relations, Onshoring Semiconductor Production: National Security Versus Economic Efficiency, 2024

<sup>35</sup> U.S. International Trade Commission, U.S. Exposure to the Taiwanese Semiconductor Industry, 2023

<sup>36</sup> The White House, FACT SHEET: Two Years after the CHIPS and Science Act, Biden-Harris Administration Celebrates Historic Achievements in Bringing Semiconductor Supply Chains Home, Creating Jobs, Supporting Innovation, and Protecting National Security, 2024

<sup>37</sup> World Economic Forum, What's in the new Building Chips in America Act and what does it mean for the semiconductor industry?, 2024

<sup>38</sup> Financial Times, TSMC to close door on producing advanced AI chips for China from Monday, 2024

<sup>39</sup> The Guardian, TSMC to make state-of-the-art chips in U.S. after multibillion subsidy pledge, 2024

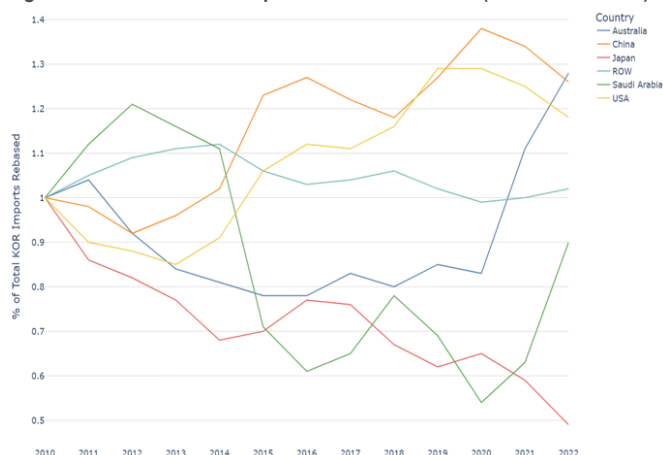
<sup>40</sup> The Korea Economic Daily, S.Korea's reshoring companies pale amid lack of support, incentives, 2024

<sup>41</sup> Korea.net, Korea's reshoring support policy starting to yield results, 2024



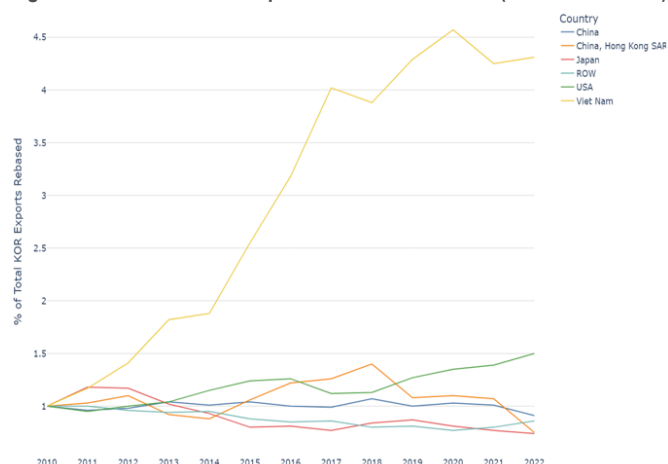
South Korea's growing reshoring aligns with tentative changes in its trading relationships. Although China remains the country's most important partner, its imports of goods and services have declined on a relative basis since 2020 (though not as precipitously as those from Japan). South Korean exports to China have also gently reduced (while those to Vietnam have soared).

Figure 30. Breakdown of Imports into South Korea (Rebased to 2010)



Source: UN ComTrade, Citi Global Data Insights

Figure 31. Breakdown of Exports From South Korea (Rebased to 2010)



Source: UN ComTrade, Citi Global Data Insights

## A Complex and Evolving Global Trade Landscape

The relationship between the U.S. and Chinese economies is more nuanced than simple decoupling narratives suggest. There have been significant changes in recent years – from Trump-era tariffs and trade restrictions to Biden's push for domestic manufacturing – which have reshaped their relationship. However, these superpowers retain deep trading ties, albeit in a narrower range of economic activities than in the past. Importantly, even as direct trade between the two countries has decreased, their indirect economic connections through other nations appear to be strengthening, highlighting the resilience of modern supply chains.

The U.S.-China dynamic is part of a broader transformation in global trade. New manufacturing powerhouses like Vietnam and India are strategically positioning themselves within international supply chains. China, meanwhile, continues to diversify its trade relationships, most notably with Russia, while also deepening its longstanding involvement in Latin America and ASEAN. In a reflection of new geopolitical concerns, countries such as the U.S. and South Korea are reshoring industries deemed to be strategic, reflecting a growing emphasis on economic security and self-reliance.

What is clear is that global trade is undergoing unprecedented change, driven by China's integration into the global economy over the past few decades and the U.S.'s growing wariness of its expanding influence in global affairs. The upshot is a transformation from a unipolar system centered on globalization to a multipolar framework defined by complicated (and occasionally overlapping) regional alliances and strategic priorities. Understanding these complex relationships between geopolitics and economic realities will be crucial for countries and companies seeking to navigate the evolving trade environment.

**Pauline Kontos**  
Global Head of Working Capital Advisory  
Citi Treasury and Trade Solutions

**Michael Hauser**  
Consumer, Retail, & Healthcare  
Citi Corporate Banking

## Putting Working Capital to Work: Deployment Best Practices

Efficient management and deployment of working capital is crucial for businesses seeking to optimize their financial performance. Companies that successfully manage their cash conversion cycles and working capital often achieve better shareholder returns, as effective practices allow them to maximize liquidity, reduce financing costs, and support strategic initiatives such as growth (either organically or through M&A) and bolster organizational resilience.

Analysis by Citi's Financial Strategy Group for last year's Supply Chain Financing report showed that companies that consistently reduced their cash conversion cycle (CCC) outperformed peers in sector-adjusted total shareholder returns (TSR), achieving 143% TSR (8% CAGR) from 2010 to 2022, compared to 44% TSR (3% CAGR) for those that lengthened CCCs.

Optimizing working capital involves strategies such as standardizing payment terms and leveraging supply chain finance programs to ensure suppliers have efficient access to capital. In the consumer goods sector, companies with investment-grade ratings and sufficient scale have long implemented such practices and have benefited from improved cash flow, reducing reliance on costly short-term borrowing like commercial paper. This is particularly valuable in today's higher interest rate environment, where borrowing costs more than in past years.

Once corporates have an effective working capital management strategy, how should they decide whether to deploy excess funds for investment and M&A, shareholder distributions, or some other use? There is a tradeoff when allocating capital to one investment or opportunity as it prevents capital from being used on another. The experience of leading consumer goods firms suggests that best results come from considering investment, distribution, and balance sheet management on a holistic basis.

### The Capital Deployment Waterfall

When it comes to capital deployment, companies typically prioritize investment in their business for the obvious reason that capital expenditure is essential to sustain existing operations, or to grow their business.

Growth is the primary driver of shareholder value, particularly for companies with high valuation multiples. Many companies are currently investing heavily in artificial intelligence for product development, customer support, supply chain reconfigurations, or sales and marketing, for instance. Companies that can articulate and demonstrate clear paths to growth are often rewarded by investors with higher stock valuations.

Once NPV-positive investment alternatives are exhausted, companies typically focus on returning capital to shareholders through dividends and share buybacks. Of the two, dividends are the priority because a company's income-oriented investors put a premium on companies with dividends that are sustained and steadily increased over time. Industries with long-standing reputations for consistent payouts, such as consumer goods, exemplify this trend.

Corporates should ensure that their dividend yield is in line with peers that compete for the same investor dollars (as example, for consumer goods is usually 1%-3%). If a dividend is higher than expected in the sector, it could signal that the company lacks growth avenues, and is effectively misallocating capital. Alternatively, if its

dividend is perceived as too low for the sector, its valuation is likely to suffer. Equally, consistency and momentum (incremental increases in yield) are critical. Unless there are exceptional circumstances (such as COVID-19), one cut can undermine decades of credibility when it comes to dividends.

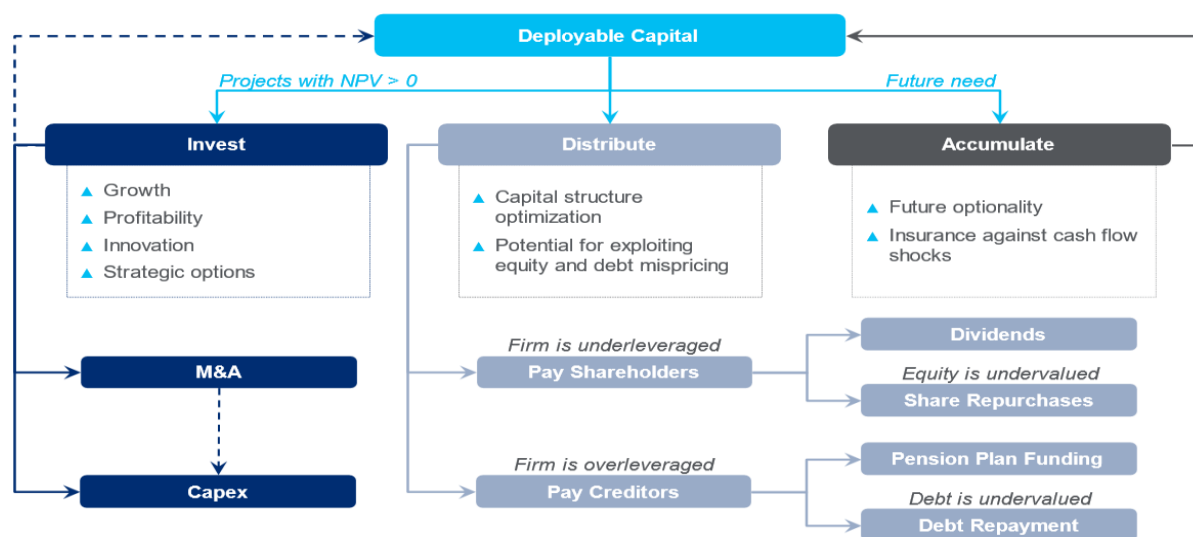
Like dividends, share buybacks return surplus capital to investors. However, they play a very different role. The chief advantage of buybacks over dividends is flexibility: investors understand that buybacks may come and go and that they are “last in the waterfall” of capital allocation priorities. If a company has increased leverage to finance an acquisition, sales performance comes under pressure, or suffers supply chain disruption, buybacks can be reduced (or even put on hold) with limited consequences. That said, companies that can maintain a baseline level of buybacks, and therefore show sustainable earnings per share (EPS) growth, may be rewarded by the market.

The flexibility offered by buybacks also allows companies to manage leverage within credit rating thresholds. They can maintain an optimal weighted average cost of capital that balances the financial flexibility of higher ratings with the benefits of debt in the capital structure. This policy is deployed by almost all leading consumer goods companies – their buybacks fluctuate markedly from year to year while their credit rating remains stable throughout, with the former effectively facilitating the latter.

Contrary to popular belief, buybacks are not often driven by a corporation's view that its share price is undervalued and that a buyback would prompt a rapid repricing. Certainly, indirectly enhancing EPS through buybacks should improve share price performance. However, as buybacks are chiefly an indication that a company has strong earnings and is generating plenty of cash (hence it is returning some), this is likely to already be reflected in the share price. In practice, therefore, companies often buy back shares at sub-optimal times from a share price perspective.

Figure 32. Capital Deployment Framework

There is a tradeoff when allocating capital to one investment or opportunity as it prevents capital from being used on another. As such, investment, distribution, and financing decisions should be considered holistically.



Source Citi Financial Strategy Group

## A Virtuous Circle

Effective working capital management not only frees up surplus capital for investment or distribution; by instilling good practices, it also enhances a company's ability to execute its business strategies.

Generating synergies – either by reducing costs through consolidation of administration or other activities, or by increasing sales by leveraging expanded sales channels – is key. However, such synergies frequently take several years to be realized; physical integration of two businesses is a time-consuming process.

In contrast, working capital synergies are quickly achievable. New acquisitions can be quickly integrated into existing ecosystems such as liquidity structures and supply chain finance or receivables finance programs, freeing up cash almost immediately.

Companies with efficient working capital management can therefore reduce the financial burden of acquisitions by rapidly unlocking cash flow from the acquired entity's operations. Efficient working capital systems effectively lower financing requirements or facilitate a larger acquisition war chest. Alternatively, the additional free cash flow generated by integrating newly acquired entities into efficient working capital structures can be used to deleverage faster, enhancing financial flexibility and facilitating further strategic initiatives.

## Enhancing Treasury's Strategic Role

Treasury plays a pivotal role in the various processes associated with efficient working capital management and deployment. Growing recognition of the importance of working capital to the organization's strategic success therefore enables treasury to step beyond its traditional responsibilities such as risk and liquidity management and come to be seen as an enabler of growth.

A well-prepared treasury function can highlight opportunities for cost savings and improved cash flow, demonstrating its value to the broader organization. For example, by identifying how working capital improvements can accelerate the paydown of debt, fund pension obligations (which may be dependent on company-specific issues relating to pension plans or tax policy changes) or fund growth investments, treasury teams can directly contribute to a company's strategic goals.

## Delivering Operational Flexibility

Investing in working capital strategies during stable periods creates a strong foundation that ensures resilience during downturns (or unexpected crises such as COVID-19) and better positions companies to navigate turbulence by providing a buffer. At the same time, it allows companies to rapidly seize opportunities during favorable market conditions: it is both a defensive and offensive tool. In short, effective working capital management delivers greater operational flexibility.

Sector-specific dynamics influence how companies approach working capital management. In the healthcare sector, for instance, high valuations and significant growth expectations often make working capital optimization a priority to support M&A activity. Consumer goods companies, on the other hand, focus on balancing stable dividend payouts with investments in R&D and digital transformations. Retailers, particularly those facing operational challenges, may rely on working capital as a defensive tool to maintain liquidity and weather financial difficulties while planning for future growth.

There are numerous examples from leading consumer goods companies of how a proactive approach to working capital management lays the groundwork for long-term success and value creation. Some of the world's biggest firms have unlocked billions in cash flow through improved working capital practices, enabling them to pursue acquisitions, sustain share buybacks, and fund strategic investments simultaneously. These benefits compound over time, accelerating shareholder returns and strengthening companies' competitive positions.

Ultimately, working capital management – delivered by a strong treasury function – is not merely a financial exercise. It is a strategic imperative that, allied with a coherent and consistent capital deployment framework, underpins investment, growth, and resilience across all sectors and market conditions.

## Surveys

### Large Corporate Survey: A Shift in Focus to Future Growth

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#### About the Survey

The Large Corporate Survey is a primary voice-of-the-corporate research study focused on the challenges, resilience, and futures of large corporates' supply chains. For this year's survey, Citi collaborated with East & Partners, a global B2B financial markets research firm, continuing a partnership that began in 2022.

This year's survey is based on 708 responses from the world's largest and most complex organizations. Its goal is to shed light not only on the challenges they face but also to better understand what the future may hold for them and how they plan to capitalize on emerging opportunities.

For the past four years, much of the decision-making associated with global supply chains and working capital management has been framed by the need to maintain and maximize resilience. Resilience remains a core concern for finance and procurement leaders, particularly as the challenges associated with high inflation and supply chain disruptions have yet to fully subside.

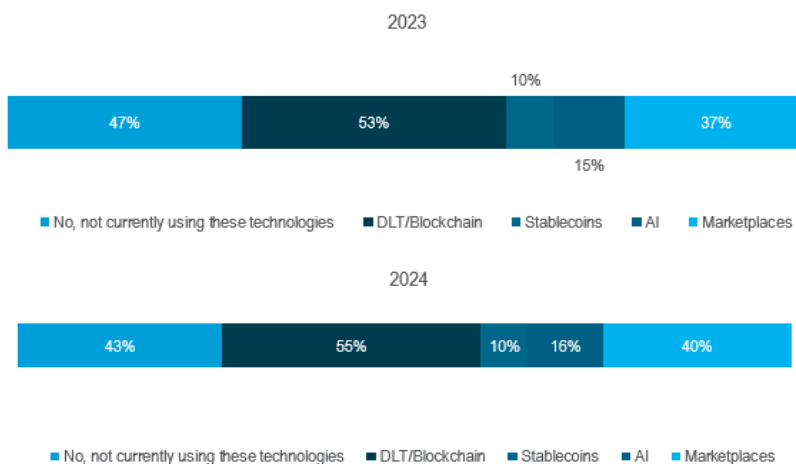
However, this year's Large Corporate Survey also highlights a new excitement surrounding the potential applications of rapidly developing technology, most notably artificial intelligence (AI). Simultaneously, the operating environment is becoming more favorable due to rate cuts in the West and government stimulus in the East, particularly in China. These developments are encouraging corporates to explore future opportunities with fresh enthusiasm and to develop strategic plans to capitalize on them.

#### AI Enters the Mainstream

Although artificial intelligence (AI) has existed at least theoretically for decades, it surged into the headlines in 2023 and continues to attract attention. At the same time, distributed ledger technology (DLT) moved beyond its association with cryptocurrencies, increasingly finding applications in mainstream areas. Additionally, marketplaces expanded their reach to encompass B2B as well as B2C flows, as corporates increasingly recognized their potential benefits.

The broadening acceptance of these technologies is reflected in this year's survey. Overall, the share of respondents reporting that they are not currently using new technologies decreased from 47% to 43% year-over-year. The relatively small decline – despite the potentially revolutionary nature of these innovations – could indicate that many organizations are still in the early stages of this new wave of technological transformation.

**Figure 33. Are you using new digital technologies for Trade such as Blockchain, DLT, Marketplaces?**

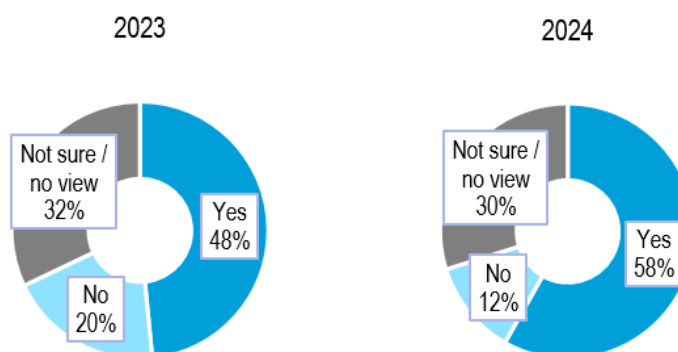


Note: Responses sum to over 100% due to multiple responses being enabled

Source: East & Partners Large Corporate Survey 2024, Citi Treasury and Trade Solutions

While there was no significant change in the use of any single technology from 2023 to 2024, there were some telling trends. In 2023, 49% of survey respondents indicated that they were increasing their spending allocation for new technologies such as generative AI; by 2024, that figure had risen to 58%. Meanwhile, the share of those indicating “No [not increasing spending allocation]” fell from 20% to 12%.

**Figure 34. Will you be increasing your spend allocation for newer technologies such as generative AI?**



Source: East & Partners Large Corporate Survey 2024, Citi Treasury and Trade Solutions

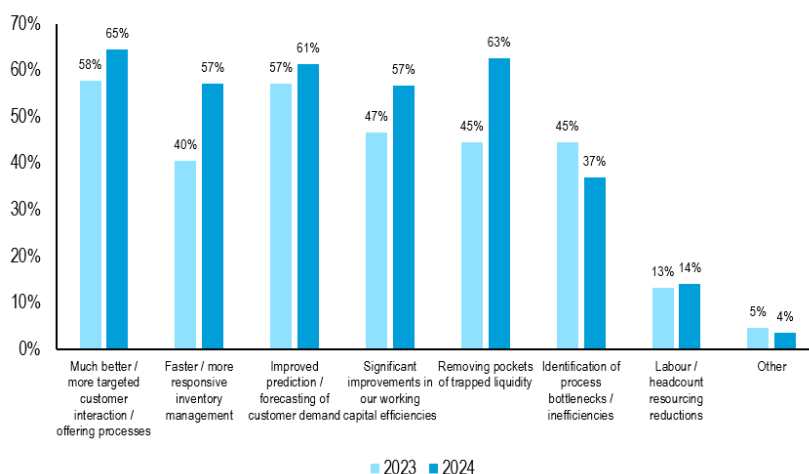
Given the complexities of treasury management and the document-intensive nature of trade finance, AI provides professionals in these fields with many tangible use cases. Respondents to this year’s survey identified increased potential benefits from generative AI across almost every category compared to the previous year.

The two areas with the most significant year-over-year growth were “Removing pockets of trapped liquidity” (rising from 45% to 63%) and “Faster, more responsive inventory management” (rising from 41% to 57%). Both of these top gainers address different types of inefficiencies.



Trapped liquidity can result from various factors, such as poor system architecture or restricted currencies. However, AI offers treasurers a promising tool to tackle these challenges, enabling more effective liquidity management.

Figure 35. What benefits are you hoping to realize with the adoption of generative AI?



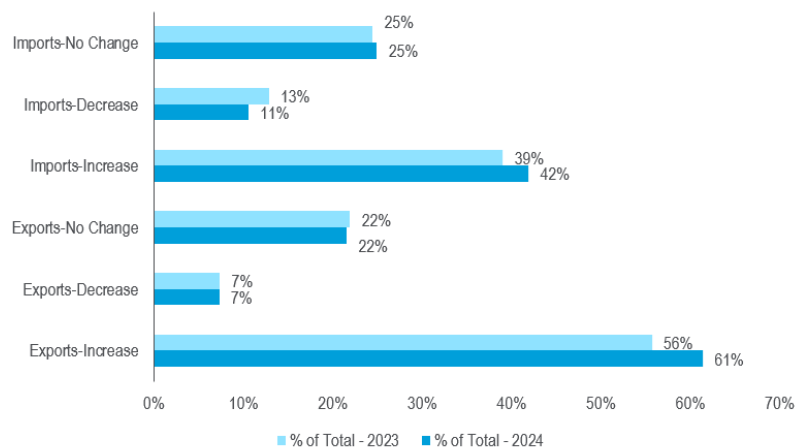
Note: Responses sum to over 100% due to multiple responses being enabled

Source: East & Partners Large Corporate Survey 2024, Citi Treasury and Trade Solutions

## A More Optimistic Outlook

As in previous years, survey respondents were asked about their expectations for changes in import and export volumes over the next six months. Respondents in 2024 were optimistic, with 61% anticipating an increase in export volumes, compared to 56% in 2023. A similar trend was observed for imports, with 42% expecting an increase in 2024, compared to 39% in the previous year.

Figure 36. What percentage change in volume do you anticipate in the next six months for:



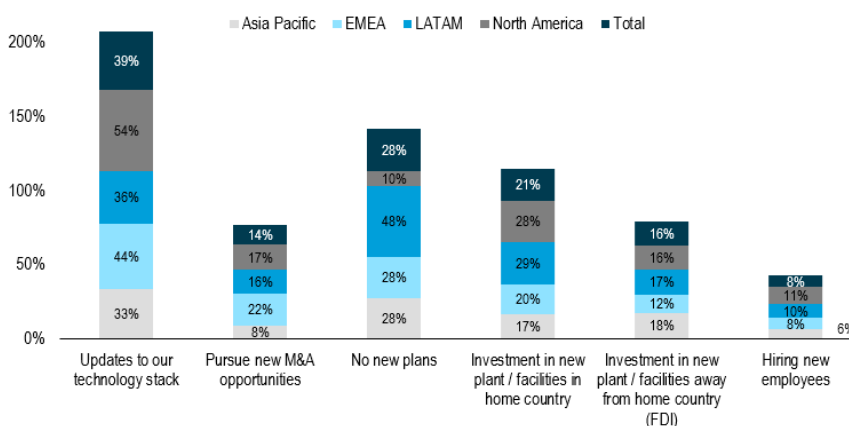
Note: corporates both importing and exporting have been added to each category above

Source: Citi GPS, East & Partners Large Corporate Survey 2024, Citi Treasury and Trade Solutions

The macroeconomic context is likely a significant driver of this shift in sentiment. As of December 2024, major interest rates in the West appear to be retreating from the highs implemented to combat surging inflation. Simultaneously, Chinese policymakers have signaled the potential for additional stimulus to support economic growth. These measures may be viewed by corporates as potential tailwinds for future investments as they consider pathways to growth.

Regarding capital expenditure, the preference for “Updates to our technology stack” coincides with many respondents exploring ways to leverage rapidly advancing technology. Interestingly, the strength of “Investment in new plants/facilities (both domestically and abroad)” aligns with the increased focus on supply chain shifts seen in recent years.

**Figure 37. What new capital expenditures or investments does your organization have planned for a declining interest rate environment?**



Note: Responses sum to over 100% due to multiple responses being enabled

Source: East & Partners Large Corporate Survey 2024, Citi Treasury and Trade Solutions

The decision to pursue foreign direct investment (FDI) depends on various factors, including access to talent, market opportunities, proximity to end users, and financial incentives, among others. North America-based respondents were least likely to indicate that they had no current plans for FDI, with only 25% reporting no intentions to invest. In stark contrast, 83% of LATAM respondents and 70% of EMEA respondents stated they had no current FDI plans.

In the APAC region, 50% of respondents reported no plans for FDI, though this figure varies significantly by country. For instance, only 20% of respondents in China indicated no FDI plans, compared to 67% of respondents in Vietnam.

Foreign direct investment – and the broader development of facilities – is often a lengthy process, with a potentially extended runway before realizing benefits. The median timeframe to achieve returns from FDI was as short as 1.8 years in North America but as long as 3.0 years in the Asia-Pacific region.

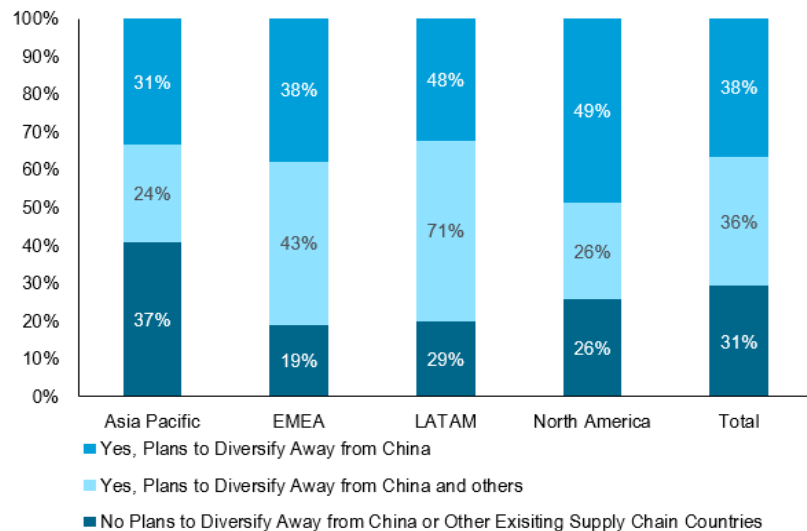
By industry, Natural Resources had the longest timeline to realizing any benefit from FDI, with an average of 3.7 years, compared to just one year in the consumer sector.

## Supply Chain Shifts

Today's FDI patterns may be driven by recent global supply chain shifts, which have been influenced by the disruptions of the post-COVID-19 period and the current turbulent geopolitical landscape. Supply chain shifts – or the potential for them – have become a major topic of discussion: corporates are highly attuned to the global reach of their supply chains. Given these shifts, concepts like nearshoring, reshoring, and friendshoring are gaining attention.

China, often referred to as 'the world's factory,' has been a central focus as companies reassess how much of their supply chain depends on the country. Due to China's dominant position as a supplier, many corporates have adopted the "China-plus-one" strategy to diversify their supply chains. To assess the prevalence of this strategy, survey respondents were asked whether their organization had implemented or was in the process of implementing a "China-plus-one" approach.

**Figure 38. Has your organization implemented or begun to implement a "China Plus One" strategy (diversifying production and SC activities outside China) or a diversification strategy away from other countries?**



Note: "Others" actively prompted for

Source: East & Partners Large Corporate Survey 2024, Citi Treasury and Trade Solutions

Respondents were asked about their primary motivations for shifting or considering a shift of their supply chains to a new country. While some answers were consistent across regions, notable differences emerged as well. In all regions except Asia Pacific, "Closer to major suppliers" ranked as the most popular response, or tied for first. Another common factor across all regions was "Cheaper labor/production costs."

Interestingly, when it comes to diversification as a means of limiting risk, North American respondents were the least likely – by a significant margin – to select "Diversification to limit supplier risk" (16% for North America, compared to the global average of 30%). However, North American respondents were more likely than those from any other region to choose "Diversification to limit country risk" (34% for North America, versus the global average of 26%).

**Figure 39. What are your key motivations for shifting or considering a shift of your supply chains to a new country?**

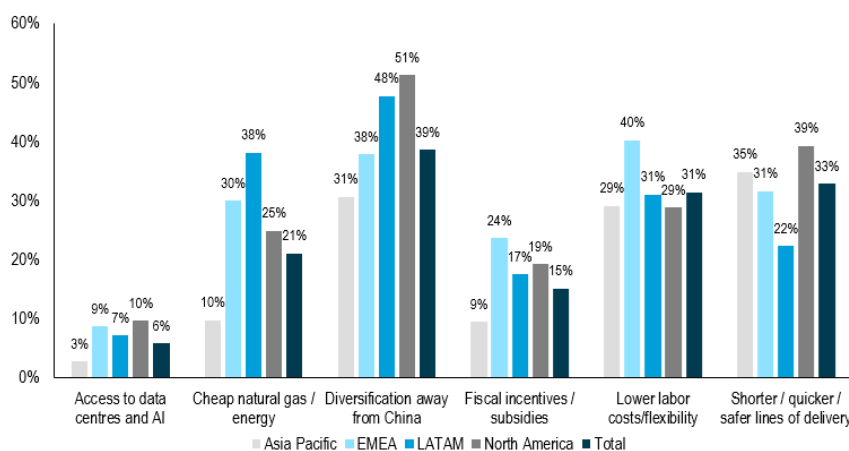
	Asia Pacific	EMEA	LATAM	North America	Total
Proximity to end consumers	22%	24%	35%	29%	26%
Cheaper labor / production costs	29%	40%	37%	44%	35%
Access to new technologies	6%	10%	9%	6%	7%
Diversification to limit supplier risk	27%	43%	37%	16%	30%
Diversification to limit country risk	23%	20%	30%	34%	26%
Access to greener energy sources	12%	7%	9%	6%	9%
Closer to major suppliers	26%	43%	48%	44%	36%
No plans to diversify our supply chains to new countries	37%	19%	29%	26%	31%

Note: Responses sum to over 100% due to multiple responses being enabled

Source: East & Partners Large Corporate Survey 2024, Citi Treasury and Trade Solutions

Interest in reshoring operations – bringing operations back to the home market – has been growing. Historically, corporates offshored parts of their operations primarily to achieve cost savings. However, advancements in new technologies are making it more viable to locate operations in the home market than in the past. When asked about the primary driver for considering reshoring, “Diversification away from China” was the most popular response among all respondents, followed by “Lower labor costs/flexibility.”

**Figure 40. What are your primary drivers or considerations when considering reshoring operations?**



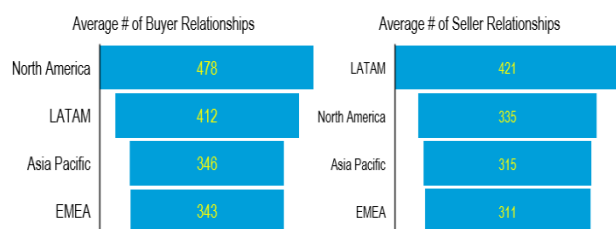
Note: Responses sum to over 100% due to multiple responses being enabled

Source: East & Partners Large Corporate Survey 2024, Citi Treasury and Trade Solutions

Shifting supply chains are not only impacting corporates' operations but also reshaping their relationships with suppliers. In response to previous global supply chain disruptions, many corporates sought to enhance resilience by adding redundancy to their supplier base. On average, respondents maintained 395 buyer relationships and 346 supplier relationships. LATAM respondents maintained the most supplier relationships, averaging 421, while North American respondents maintained the most buyer relationships, averaging 478.

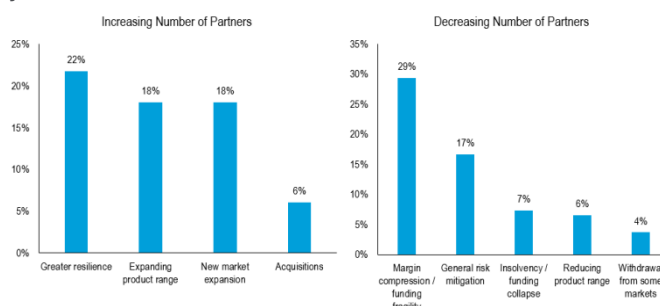
A third of global respondents indicated they were increasing their number of supply chain partners, while 41% reported a decrease. Twenty-six percent saw no significant change in the number of their partners.

**Figure 41. How many supply chain partners do you currently manage in your network?**



Source: East & Partners Large Corporate Survey 2024, Citi Treasury and Trade Solutions

**Figure 42. Are you planning to increase or decrease the number of supply chain partners in your network? Specifically, why are you planning to increase/decrease the number of supply chain partners in your network?**



Note: Responses sum to over 100% due to multiple responses being enabled

Source: East & Partners Large Corporate Survey 2024, Citi Treasury and Trade Solutions

For respondents who indicated they were increasing their supply chain partners, the primary reasons were “Greater resilience,” “New market expansion,” and “Expanding product range.” For those decreasing their number of partners, the main reasons were “Margin compression/funding fragility” and “General risk mitigation.”

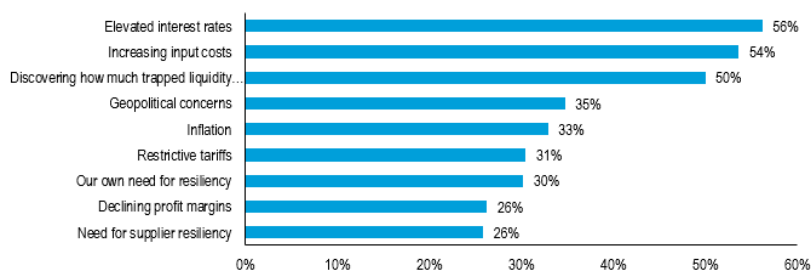
The rationale for reconfiguring supply chains has evolved over the years, influenced by a variety of factors. Despite the differing reasons, driving efficiency remains a central theme.

## Managing Working Capital

Managing working capital remains a key focus for treasurers, who continue to face challenges such as inflation and fluctuating demand. Working capital is closely tied to resiliency and was a major concern following the pandemic. However, treasurers are being increasingly called on to drive value within their organizations.

When asked about the factors that have most influenced their approach to working capital management, the top responses were largely centered on efficiency: “Elevated interest rates” (56%), “Increasing input costs” (54%), and “Discovering how much trapped liquidity we have across our supply chain” (50%).

**Figure 43. What factors have had the biggest impact on your attitude towards working capital management?**



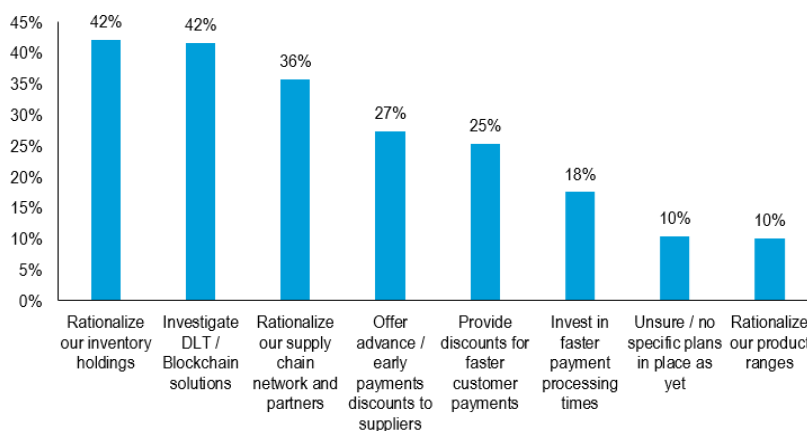
Source: East & Partners Large Corporate Survey 2024, Citi Treasury and Trade Solutions

The complex nature of an organization's business, along with the challenges of operating in multiple countries or regions, are common reasons why corporates may

experience trapped liquidity. Releasing trapped liquidity is an ongoing challenge that treasurers are continually addressing, often through a variety of strategies.

When asked about the measures they plan to take to relieve cash flow constraints and release trapped liquidity, the top responses were “Investigate DLT/blockchain solutions” (42%) and “Rationalize our inventory holdings” (42%). DLT and blockchain solutions hold exciting potential for managing liquidity constraints because they can provide real-time visibility. The prioritization of efforts to “Rationalize our inventory holdings” is understandable, as excessive inventory can negatively impact a corporate’s overall working capital.

**Figure 44. What measures are you planning to undertake to relieve cashflow constraints/release trapped liquidity in the next 6-12 months?**



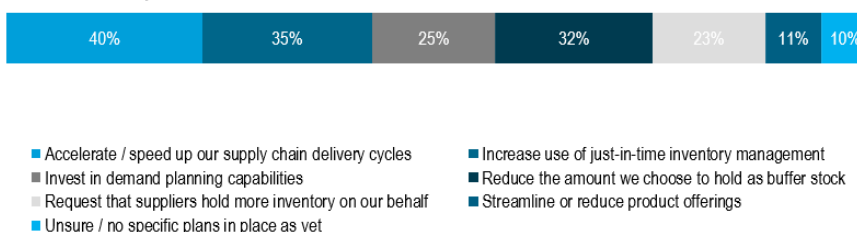
Note: Responses sum to over 100% due to multiple responses being enabled

Source: East & Partners Large Corporate Survey 2024, Citi Treasury and Trade Solutions

Given the significant levels of working capital tied up in days inventory outstanding (DIO), respondents were asked what steps they were taking to optimize inventory levels. The most common responses included “Accelerate/speed up our supply chain delivery cycles” and “Increase use of just-in-time inventory management.”

“Just-in-time” inventory practices were common before the widespread supply chain disruptions of 2021. However, with a shift toward prioritizing resiliency over efficiency, many corporates adopted more “just-in-case” practices and chose to hold more buffer stock. Now companies are working towards the right balance.

**Figure 45. With a significant proportion of working capital tied up in DIO (Days Inventory Outstanding), what steps are you taking to optimize inventory management and release trapped liquidity?**



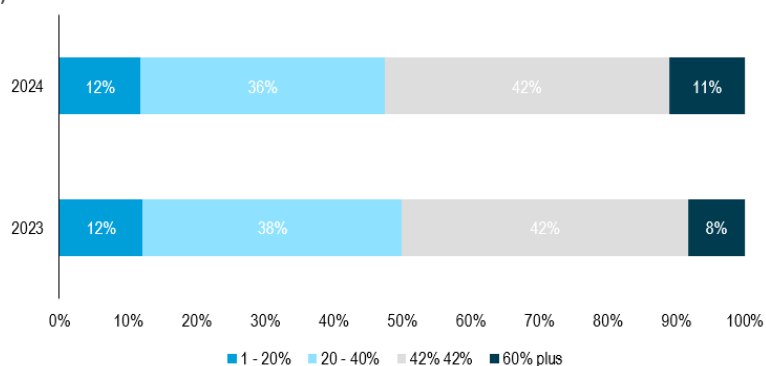
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Source: East & Partners Large Corporate Survey 2024, Citi Treasury and Trade Solutions

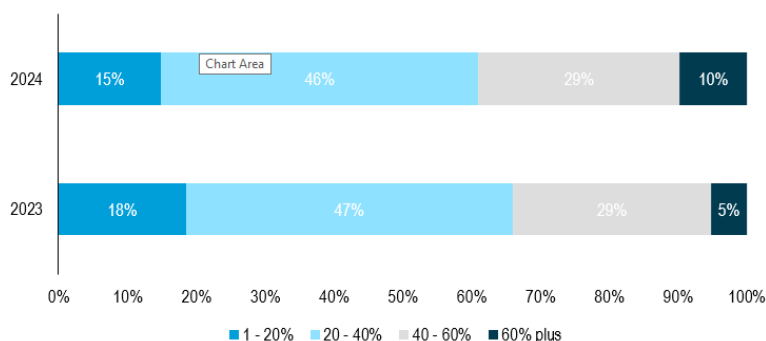
Corporates focused on maximizing working capital can benefit from a better understanding of the nuances of their holistic cash conversion cycle (CCC), which includes days sales outstanding (DSO), days inventory outstanding (DIO), and days payable outstanding (DPO).

While the amount of working capital tied up in DPO and DIO has remained largely unchanged from the previous year, the amount tied up in DPO has slightly increased. Amounts tied up in DIO have also ticked slightly higher, which is notable as it may indicate that corporates are struggling to reduce excess inventory levels.

**Figure 46. What percentage of your working capital is tied up in days payable outstanding (DPO)?**



What percentage of your working capital is tied up in days inventory outstanding (DIO)?



Source: East & Partners Large Corporate Survey 2024, Citi Treasury and Trade Solutions

Companies that are successful in managing their overall working capital often focus on improving their DPO as an offset to DIO.

One way corporates can support customers' need for more time to pay is by extending payment terms, i.e., increasing the time it takes to collect on their own sales (DSO).

However, when asked if extending terms for customers was something they were currently considering, 61% of respondents answered "No." Of the 49% who were considering it, 23% said "Yes, if it results in additional order flow." This limited interest in offering extended terms to customers may reflect the high importance respondents place on maximizing their own liquidity.

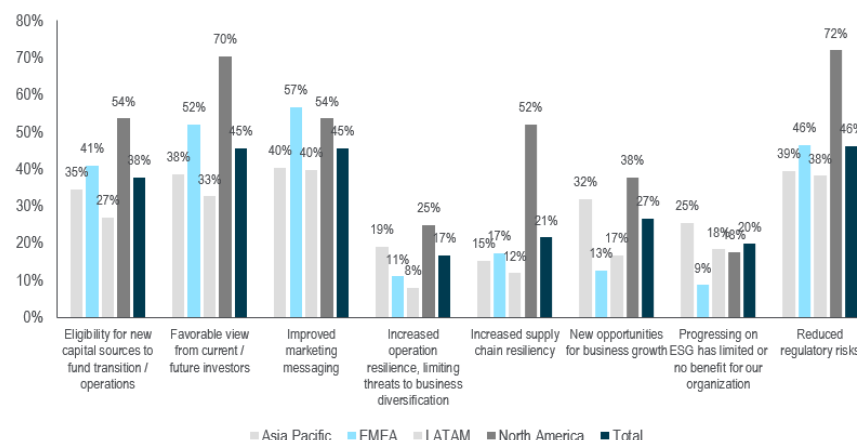
When considering the extension of payment terms for customers at an industry level, the "Consumer" (49%) and "Industrials" (48%) sectors – both of which often have complex supply chains – were the most likely to either extend or consider extending payment terms.



## Perceptions of ESG Continue to Evolve

The survey also asked businesses about their ESG strategies. Globally, large corporates see a reduction in regulatory risks as one of the main benefits of making progress on ESG.

Figure 47. What are the benefits you see in progressing an ESG strategy?



Source: East & Partners Large Corporate Survey 2024, Citi Treasury and Trade Solutions

The ability of an ESG strategy to create new opportunities for business growth (such as unlocking new markets and innovations) was cited by a quarter of this year's respondents. Similarly, increased supply chain resilience was seen as a key benefit by 22%. A fifth of large corporates believe that progressing on ESG offers limited or no benefit for their organization.

## Regional Differences

The data reveals regional variations in the perception of ESG's benefits. Large corporates in Asia Pacific are most downbeat, with 25% indicating that 'progressing on ESG has limited or no benefit for our organization'.

EMEA-based companies are not strongly focused on ESG as an opportunity for new business growth compared to other regions, with less than 13% of respondents citing it as a benefit, significantly below the global average of 27%. One possible explanation is that the economic recovery in the region post-COVID-19 has been slower than in the U.S. EMEA corporates, therefore, have had to contend with more pressing short-term issues, such as inflation and sluggish growth.

Additionally, the EU's regulatory burden to prove sustainability is greater than in the US and other regions, which may be focusing companies' sustainability resources on reporting and compliance rather than growth.

Emissions emerged as the most significant ESG issue for respondents' supply chains, which aligns with our expectations. As we note in our 2024 report, [Sustainable Transitions](#), mapping Scope 3 emissions encourages collaboration between companies and their suppliers to drive systemic change.

Pollution also ranked highly, while energy consumption and usage came third, driven by North America companies' responses. This is a likely reflection of elevated energy prices in recent times.

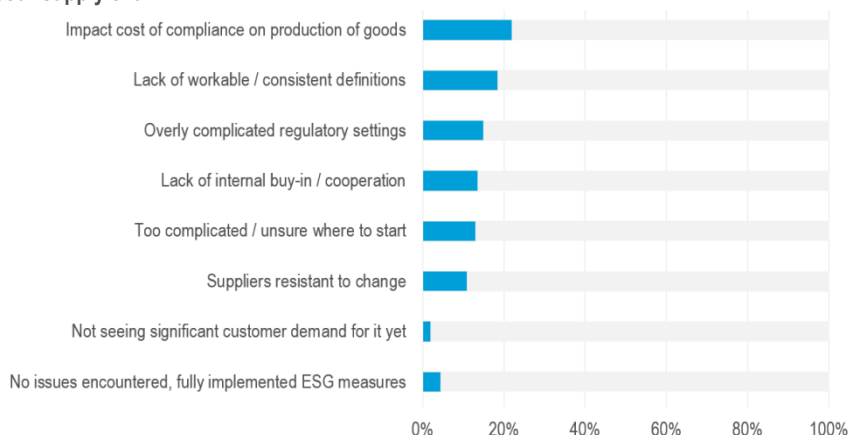
The survey findings also reveal that just over a quarter of respondents have begun to map their Scope 3 emissions (indirect greenhouse gas emissions across the value chain). On average, they have completed almost 28% of the work.

Progress is largely driven by EMEA, where nearly half of corporates have started work. This is not entirely surprising, as regulations have evolved faster in Europe. Latin American companies have also made material progress (35%) in mapping Scope 3 emissions. In contrast, North America lags significantly (26%), while Asia is even further behind (15%).

## What's Holding Back ESG?

Several factors hinder the integration of ESG issues into supply chains at a global level. Key challenges include the impact of compliance costs on the production of goods (23%). Integrating sustainability into supply chains may require technology and other investments that some companies are unwilling or unable to make.

**Figure 48. What is the main issue preventing greater integration of ESG measures across your supply chain?**



Source: East & Partners Large Corporate Survey 2024, Citi Treasury and Trade Solutions

These challenges, while common globally, exhibit notable regional variations, reflecting differences in local regulations, market priorities, and organizational structures. Understanding these regional nuances is essential for developing tailored strategies to overcome these barriers and ensure effective ESG integration across supply chains.

Looking at the main barriers to greater integration of ESG measures into supply chains over a three-year period, the trends reveal some important insights. Globally, the cost of compliance has become an increasingly significant obstacle to integrating ESG measures into supply chains.

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## Supplier Survey: Optimism Grows

### About the Survey

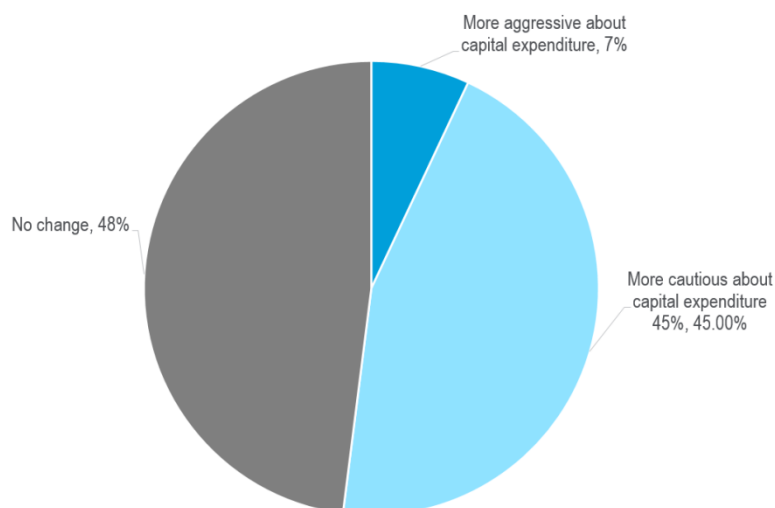
Each year, Citi Treasury & Trade Solutions conducts a survey with active suppliers participating in Citi Supply Chain Finance (SCF) programs. Given the scale and global reach of these programs, the survey provides valuable insights into the challenges and opportunities suppliers face.

In November 2024, Citi invited over 30,000 unique supplier users to participate in this year's survey. Previous surveys from 2023 and 2024 were included as part of earlier editions of this report; [Supply Chain Finance: Uncertainty In Global Supply Chains Is Going to Stay](#) and [The Future of Global Supply Chain Financing](#)

As 2024 began, suppliers were coming out of a period marked by physical supply chain disruptions, nearshoring, excess inventory, and rising interest rates. Market sentiment seemed to favor a recession, or at minimum, a slowdown in the market.

Despite rates having plateaued early in the year, and a cut arriving in September, suppliers that responded to our survey remained cautious about capital expenditure.

**Figure 49. Has the recent plateau and move towards lower interest rates influenced your company's capital investment decisions?**

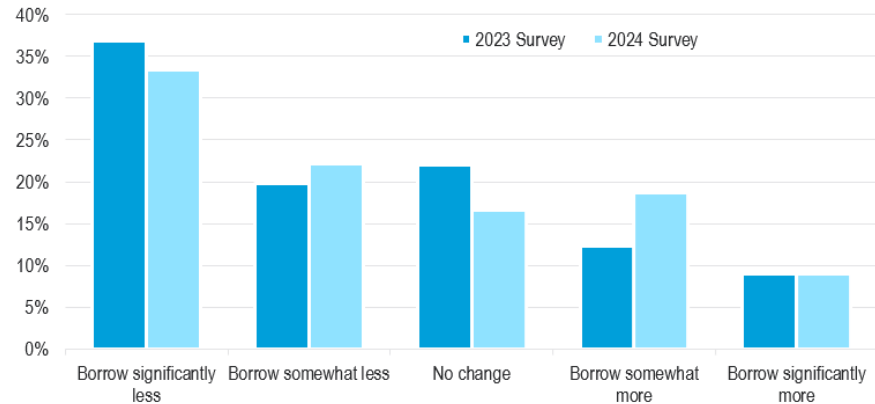


Source: 2024 Citi Supply Chain Finance Supplier Survey, Citi Treasury and Trade Solutions

When asked about their willingness to borrow, most suppliers indicated they are borrowing less. Specifically, 55% expect to borrow either significantly or somewhat less. In contrast, 28% anticipate borrowing somewhat or significantly more.

Although this 28% remains considerably lower than the proportion expecting to borrow less, it represents an increase from 21% in the previous year, indicating increased optimism. However, direct comparisons between survey results should be made cautiously, as the respondent group may have differed between years.

**Figure 50. How has prohibitive financing costs impacted your willingness to borrow (in general) compared to last year?**



Source: 2024 Citi Supply Chain Finance Supplier Survey, Citi Treasury and Trade Solutions

After their challenging experiences in recent years, companies remain keen to anticipate potential supply chain disruptions and position themselves to respond swiftly to challenging geopolitical and macro- and microeconomic environments.

In-line with last year's survey, nearly 50% of respondents believe their supply chains will face disruptions in the coming year. When asked about the impact of select geopolitical events, suppliers identified the Russia-Ukraine war as the greatest disruption. Taken together 78% of suppliers said the specified events have caused them disruption. However, 38% said their operations have not been impacted by any geopolitical events.

While caution is undoubtedly a watchword among suppliers, this year's survey results revealed signs of improving sentiment. Sales orders are at or above sales expectations for 58% of respondents, up six percentage points year-over-year. Further, over a third of suppliers reported expanding into new sales corridors, receiving orders from countries or regions where they typically do not conduct significant business. This suggests that global supply chains are being reconfigured, opening up new opportunities for suppliers.

The majority of suppliers chose to discount the same amount or more through Citi's SCF offering compared to the previous year. Among the 8% who discounted less, the primary reason cited was "lower order volume, resulting in less working capital pressure". This marks a shift from the previous year, when most suppliers pointed to "higher interest rates and financing costs" as the main factor.

As new sales orders continue to rise and interest rates decline, more suppliers are expected to increase their discounting with Citi.

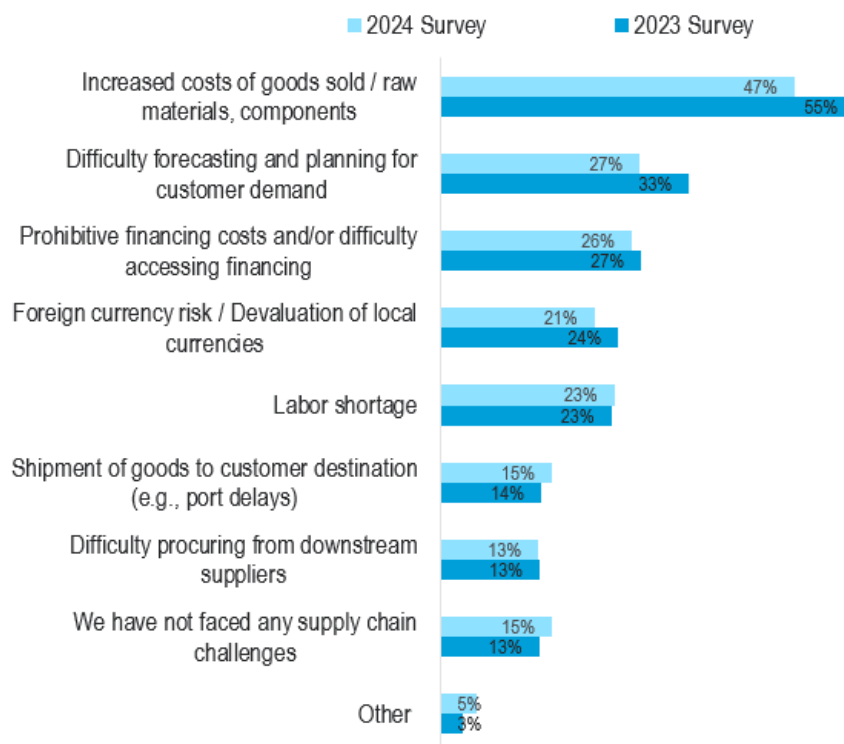
Despite AI dominating the headlines, supplier adoption of AI business tools remains relatively flat year over year. Just 7% of respondents said their organization has adopted some form of AI; a striking 56% indicated they have no plans to adopt these tools.

## Supply Chain Challenges Ease

Suppliers have endured a particularly challenging operating environment for several years. This year's survey confirms that many of the pressures suppliers faced in previous years have begun to ease.

In 2023, 55% of suppliers reported increased costs of goods sold, as inflation drove up the cost of many inputs. However, in 2024, this figure decreased to 47%, indicating a reduction in cost pressures.

Figure 51. What challenges has your organization faced in the year?



Source: 2024 Citi Supply Chain Finance Supplier Survey, Citi Treasury and Trade Solutions

## Focus Remains on Inventory Management

As in 2023, suppliers were asked to rank a number of supply chain-related decisions and themes on a scale from one (most important) to six (least important). As shown below, just-in-case vs. just-in-time inventory remained the top priority for respondents in 2024, just as it was in 2023.

Excess inventory can negatively impact corporates' working capital position. As supply chain disruptions have lessened, companies may see a reduced need to hold buffer stock, leading them to favor more efficient just-in-time practices.

For survey respondents, many of whom are small and medium-sized enterprises, AI and data-driven decision-making were ranked as their least important priorities.

## Reshoring And Nearshoring Are Shifting Supply Chains

Compared to last year, 6% more respondents (41% of the total) indicated that their organization has focused on regionalizing supply chains, through initiatives such as nearshoring or onshoring, potentially in response to geopolitical tensions and trade shifts. While corporates may have various reasons for shifting their supply chains, such changes present several challenges. Notably, 62% of respondents (a 2% increase year-over-year) cited increased costs as the biggest challenge associated with onshoring or nearshoring.

## Suppliers' ESG Focus Deepens

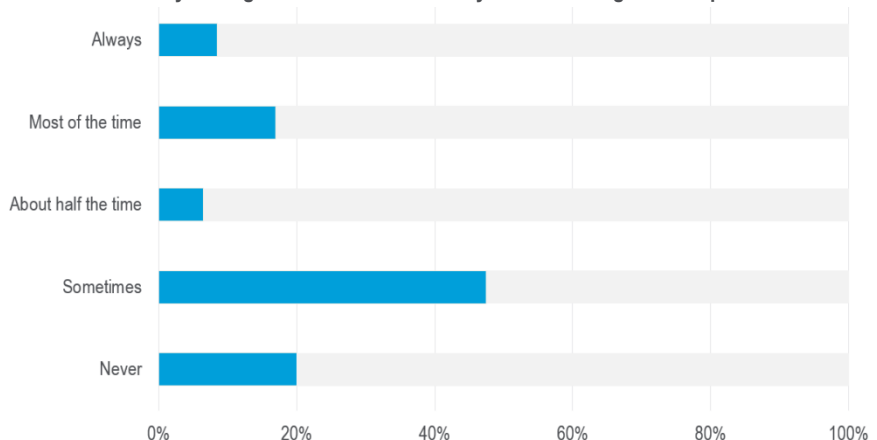
Our survey shows that suppliers, like large corporates, are increasingly integrating sustainability considerations into their supply chain management. It is important to note that buying companies usually adopt a phased approach to requesting ESG information because suppliers frequently do not have the resources to address all sustainability questions at the same time.

Typically, buyers first apply sustainability checks to new suppliers during onboarding. Addressing existing supplier relationships is more complex. Areas with significant ESG risks, such as raw material providers or manufacturers, are prioritized, while lighter checks are applied to service providers with smaller emissions footprints, or lower risks relating to other environmental factors or social risks such as human rights.

A large corporate buyer might focus on key suppliers that it believes are responsible for most of the buyer's Scope 3 emissions.

The reporting requirements for suppliers vary considerably. Some are required to disclose updates on their carbon footprint annually, while others may only be asked to provide information on a one-off basis.

**Figure 52. Figure 93. With what frequency do your corporate (B2B) customers request information about your organizations' sustainability and/or ESG\* goals and practices?\***



\*Environmental, Social & Governance

\*\*Sometimes also referred to as 'CSR', Corporate Social Responsibility

Source: 2024 Citi Supply Chain Finance Supplier Survey, Citi Treasury and Trade Solutions

Globally, nearly 80% of the respondents to the supplier survey said they had received a request about their sustainability and ESG goals and practices from buyers at some point. About a fifth have never received a request.

## Regional and industry differences

Regionally, the responses broadly align with our expectations. Latin America suppliers were significantly more likely never to have received a request for ESG information. This could be because suppliers from the region may be far more integrated into North American corporates' supply chains, where ESG considerations are currently less important among buyers.

Conversely, a higher proportion of suppliers in Asia Pacific said they were always asked about ESG while fewer than the global average were never asked. Here, suppliers are more likely to be integrated into the supply chains of corporates in regions where ESG considerations are important, including some European countries. Buyers may also be concerned about historical problems, such as child or forced labor in textile supply chains.

Breaking the results down by industry, a handful of findings stand out. Healthcare suppliers were asked about their sustainability goals far more often than the global average. In the Materials and Natural Resources sector, where large corporates might see greater ESG risks, including carbon emissions, resource extraction, and labor practices, 24% of respondents said that they are always asked about ESG compared to a global average of just 8.5%.

## Suppliers Versus Corporates

As previously mentioned, large corporates see the main benefits of ESG initiatives to include a reduction in regulatory risks, enhanced marketing messages, gaining favorable views from investors, and accessing new capital sources. A smaller proportion also value the opportunities for business growth and increased supply chain resilience. However, 20% of large buyers see limited or no benefit to their organization from progressing on ESG.

In contrast, the majority of suppliers view ESG as a driver of new business growth opportunities. This was especially pronounced in EMEA and Latin America. One explanation is that suppliers may perceive ESG as an opportunity to become visible to buyers with ESG-focused supply chain requirements.

Notably, a slightly higher proportion of suppliers than buyers report seeing limited or no business benefits from ESG initiatives. However, the small difference indicates general alignment between buyers and suppliers in viewing ESG as a business priority. The most striking exception to this is North America, where almost 59% of suppliers believe ESG has no benefit, in contrast to large corporates in the region, few of which perceive there to be no benefit.

## The View From China And India

In this survey we paid special attention to China and India. They are both critical to global supply chains but are on different trajectories. China is widely assumed to becoming less integral to many global supply chains because of geopolitical developments. India is enjoying a greater role in the global economy because of the modernization of its economy and many large buyers' search for an alternative to China or as part of their 'China plus one' strategy.

The frequency of requests received by suppliers in the two countries varies somewhat, with almost 90% of suppliers in China asked about ESG at some stage, and 11% never. In contrast, suppliers in India are asked about ESG almost 78% while 22% are never asked. This divergence could reflect the integration of Chinese



suppliers into global supply chain. As India increases its global role, it is expected that more stringent ESG demands would be made of suppliers.

While both see an ESG strategy as beneficial to business growth, they diverge when it comes to other perceived benefits. Chinese suppliers are significantly more likely than Indian ones (and the global average) to focus on benefits such as increased supply chain resilience and increased operational resilience.

## ECAs Evolve Beyond Their Traditional Remit

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recent years, export credit agencies (ECAs) have increasingly adapted their roles to address emerging global challenges. Traditionally, ECAs have focused on supporting exports from their home markets by providing guarantees and direct lending tied to a specific export project. ECAs are designed to mobilize funding where the commercial bank market alone would not have sufficient appetite or capacity. For instance, some U.S. agencies have provided their support to the US aviation industry to facilitate the export of US commercial aircraft around the globe.

### Supporting national interests

However, this traditional model is evolving as the trading environment has changed in recent years due to geopolitical tensions, and the increasing importance of sustainable technologies in many countries. ECAs are working to support a range of broader national interests, including the need to diversify supply chains to improve resilience, promote national security and reduce overreliance on specific countries, particularly China. The emergence of so-called “untied programs” over the last five years reflects this strategic broadening in the mandate of ECAs.

At its core, untied financing is a departure from the traditional tied approach in ECA financing. Tied financing is linked to a specific project or supply contract and governed by OECD rules to ensure a fair playing field by requiring exporters to compete based on the quality of their products rather than the cost of financing offered by their country's ECA. Untied financings fall outside of OECD rules and enable the ECAs to offer more flexible solutions, which have led to the roll-out of a wide range of new programs geared towards addressing strategic national priorities.

Certain ECAs are now supporting onshoring initiatives. The U.S. EXIM's Make More in America program, launched in 2022, provides direct lending or guarantees up to 80% for capital projects aimed at increasing U.S.-based manufacturing capabilities to support exports, for instance. The Export Development Canada (EDC) Market Window program has similarly expanded in scale, supporting domestic projects that create jobs and generate exports. In Europe, UK Export Finance (UKEF) has launched its Export Development Guarantee program aimed at directly supporting the working capital needs of significant UK-based exporters, through guarantees of up to 80%.

Although these programs tend to be industry-agnostic (with certain legal limitation), they often align with national priorities. For example, U.S. EXIM has emphasized advanced aviation, semiconductor and green technology-related projects (see callout box), while Canada also prioritizes sustainability-related industries.

At the same time, ECAs are indirectly bolstering their country's industrial bases by supporting foreign investments. Asian ECAs, particularly from South Korea, have backed their national champions – companies such as Samsung and LG – as they establish facilities abroad, such as EV battery plants in North America and South East Asia. While these efforts do not directly create jobs in the home countries, they help to maintain strategic advantages, which in the case of Korea, includes leadership in battery technology.

Another successful approach, pioneered by SACE through its Push program, consists in supporting exporters by guaranteeing financing to foreign companies that undertake to increase purchases of goods and services from the ECA's

country. As part of the Push program, SACE actively promotes Italian exports by engaging in so-called Business Matching, facilitating targeted meetings between Italian exporters and relevant foreign companies.

A fourth ECA strategy that has increasingly been deployed in recent years is support for national companies to secure raw materials critical to the energy transition and strategic industrial processes. German and Japanese ECAs, for example, have financed large mining projects in emerging markets, enabling the import of essential resources for processing and use in industrial exports. These programs align with strategic goals to ensure resource availability while fostering exports.

In January 2025, the U.S. EXIM Bank launched the Supply Chain Resiliency Initiative (SCRI), which has similar goals. It aims to strengthen domestic supply chains, reduce reliance on China for critical minerals and rare earth elements, and protect American jobs. SCRI will finance international projects with long-term 'off-take' contracts with U.S. companies, ensuring access to key resources for technologies such as battery storage and semiconductors.

Finally, we have also seen ECAs gradually shift their stance on the defense industry. Against a backdrop of heightened geopolitical uncertainty in Europe and Asia, certain Korean (e.g., KEXIM) and European ECAs (e.g., UKEF) have started directly supporting governments (e.g., Poland) to strengthen their defense systems and bolster their armed forces.

## A Breadth of Support: The Changing Role of ECAs

- EXIM has now authorized five deals under its Make More in America initiative, totaling nearly \$325 million. The latest transaction, approved in November 2024, is valued at \$51 million and supports ElectroVaya U.S.A., a lithium-ion battery technology and manufacturing company based in Jamestown, New York. The financing will enhance production capacity and reshore a critical part of the production process from overseas competitors, creating an estimated 290 U.S. jobs.
- Sub-Saharan Africa has been a key focus for EXIM in recent years as part of the Biden administration's Partnership for Global Infrastructure initiative; deals for the financial year 2024 reached \$2 billion. Notable transactions include a \$1.6 billion guarantee to support the construction of solar photovoltaic energy mini-grids with energy storage facilities that will power water collection, treatment, and purification systems in Angola. EXIM also finalized a \$363 million loan to help construction firm Acrow Corporation supply Angola with 186 modular steel bridges, set to be installed as part of the Lobito Corridor project.
- In July 2024, Arafura Rare Earths secured conditional approval for up to \$115 million in loan guarantees from Germany's ECA Euler Hermes for its Nolans project in Australia's Northern Territory, which will support a targeted \$775 million in senior debt funding from commercial lenders. The 10-year loan guarantees will help ensure a stable supply of rare earth elements, neodymium, and praseodymium to German companies such as Siemens Gamesa.
- In 2022, Trafigura received a guarantee from the German government under the Untied Financial Loan program (UFK), managed by Euler Hermes. This program aims to secure the long-term supply of essential commodities to Germany.

The loan supports Trafigura's commitment to deliver significant volumes of gas into the European gas grid, including Germany, over the next four years. The gas will be supplied to Securing Energy for Europe (SEFE), which was recently recapitalized by the German government.

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## Transformative Trends in Receivables Finance

The receivables finance industry, once a paper-dominated space, is undergoing a significant transformation. As global trade grows more interconnected and complex, factors such as digitalization, artificial intelligence (AI), and innovative financing models are redefining how the sector operates. The upcoming decade will see the emergence of new practices driven by evolving client needs, technological advancements, and a focus on efficiency and transparency.

### The Shifting Landscape of Receivables Finance

Receivables finance has traditionally operated as a post-performance product, meaning banks only financed transactions after goods or services had been delivered. This approach ensured the receivables were reflected in the balance sheets of clients, providing a tangible basis for transactions.

Historically, the industry has relied heavily on physical documents, such as contracts, bills of lading, and certificates, to validate transactions and often times may require “wet signatures” These solutions remain critical to global trade: Bloomberg reports as many as four billion pieces of paper may be in circulation at any one point in time in support of global cargo trade.<sup>42</sup>

While these trade products facilitate the smooth functioning of the global economy, they lead to significant inefficiencies. In the case of a bill of exchange, common in the energy, industrials and TMT (technology, media, and telecom) industries, signatures from both buyer and seller are required and a bank must endorse the physical document: the entire process takes around 7-10 days. During this time, sellers wait for payment, banks lose potential interest revenue, and the economic cycle suffers delays.

Moreover, paper-based trade finance solutions result in high costs and reduced competition, given the challenges associated with storing large volumes of paper-based data. The complexity of paper-based documentation also makes scrutiny more challenging, leading to a risk of error, and cases of fraud. The ICC Germany in partnership with MonetaGo estimates about 1% of global trade finance transactions – or \$50 billion – are at risk of fraud.<sup>43</sup>

Recent fraud incidents in the industry, particularly in commodity trading hubs like Dubai and Singapore<sup>44</sup>, underscore the vulnerabilities associated with paper-based processes. These risks highlight the need for digitalization to streamline due diligence, monitor fund flows, and reduce processing times.

As the global trade landscape evolves with shifts in supply chains, geopolitical issues, and cross-border risks, banks are adopting new technologies to address these challenges.

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<sup>42</sup> Bloomberg, Antiquated Paperwork Leaves \$25 Trillion of Trade Open to Fraud, 2024

<sup>43</sup> ICC Germany & MonetaGo, Shutting Fraudsters out of Trade: Second Edition, September 2023.

<sup>44</sup> Financial Times, Singapore gets tough on commodity trading practices after series of scandals, 3 December 2024; GTR, UAE bank seeks to liquidate Rasmala Trade Finance Fund, 12 October 2024

## Digitalization: Revolutionizing Trade Documentation

A pivotal change in the industry is the digitalization of trade documentation, a trend accelerated by the pandemic. Digital solutions such as DocuSign have reduced delays significantly, allowing banks and clients to finalize many transactions within a day.

Despite these advancements, full-scale digitalization of instruments like bills of exchange remains limited due to regulatory barriers. Only a few countries, such as the UK, Bahrain, and Singapore, have enacted legislation to allow fully digital bills of exchange.

## AI-Driven Insights: Enhancing Predictive Analysis

Artificial intelligence is poised to be a game-changer in receivables finance. Traditionally, banks relied on historical data to assess client portfolios. However, past performance is no longer a sufficient predictor of future outcomes, particularly in a rapidly changing global environment. AI models now analyze a broader range of factors, including geopolitical conditions, economic trends, and industry-specific risks, to forecast buyer behaviors and cash flow patterns.

For instance, an AI model can identify that a client portfolio, previously showing a receivables aging profile of three to five days, might trend toward a 15-day aging period over the next three years (indicating a weakening of the financial health and reliability of a company's customers). Such projections enable banks to structure financing deals that account for potential delays, providing sellers with robust solutions that mitigate risks.

These tools also offer value to clients by highlighting underperforming buyers and identifying industries likely to face challenges due to regulatory or market shifts. This real-time trend analysis empowers businesses to optimize their portfolios and build stronger relationships with financing partners.

## Modernizing Through Embedded Sales Finance

The financial services sector is witnessing a surge in the adoption of embedded sales finance, a broad and innovative concept designed to address evolving client needs. This approach includes various solutions such as inventory financing, subscription models, and buy-now-pay-later (BNPL) schemes for corporate clients. These models aim to provide more flexible, efficient, and scalable financial solutions, helping companies to better manage their cash flow and balance sheets.

### 1. Inventory Finance

One of the most prominent trends in embedded sales finance is inventory financing. This model allows companies to maintain lighter balance sheets while ensuring operational efficiency. For example, manufacturers can secure bulk orders of components at a lower cost without holding the inventory themselves. Instead, an intermediary holds the stock and supplies it to the manufacturer on a just-in-time basis. This reduces the manufacturer's financial burden and the risk of price fluctuations.

Banks play a crucial role in this ecosystem by financing the intermediary holding the inventory. This model has grown significantly post-pandemic as companies seek to optimize leverage ratios and enhance liquidity management.

## 2. **Subscription Models**

Subscription models are gaining traction, particularly in sectors like IT and electric vehicles (EVs). Companies are increasingly bundling products and services to offer pay-as-you-go financing options. In the IT sector, for instance, a software company may bundle hardware with ongoing software services. The hardware is delivered upfront, while software payments are spread over time based on actual usage. This model poses challenges for discounting receivables, as it combines delivered goods with ongoing service obligations. Financial institutions address this by structuring financing solutions that account for both fixed and variable components, minimizing risk exposure.

A similar trend is visible in the EV industry, where a few governments in regions like Asia mandate the adoption of electric buses for corporate transportation. Companies purchasing these vehicles often opt for pay-as-you-go models, paying a fixed cost upfront and variable costs based on usage. This flexible financing structure supports companies in managing cash flow while meeting regulatory requirements.

## 3. **Corporate BNPL**

The BNPL model, popular in the retail space, is now making inroads into corporate finance. In this framework, businesses can purchase goods from marketplaces with deferred payment options. For example, a company might purchase \$1 million worth of office supplies through a platform and opt to pay in installments over 12 months. This flexibility enhances buyer cash flow and drives seller growth by expanding buyers' purchasing power.

Banks collaborate with these marketplaces to pre-screen buyers, assess creditworthiness, and provide pre-approved credit lines. This model relies heavily on digitalization and advanced credit algorithms to ensure seamless operation. With proper due diligence and backend agreements between buyers and sellers, banks can confidently finance purchases over extended periods. BNPL for corporates has become a key component of broader eCommerce financing, streamlining financial flows across supply chains.

One challenge in these innovative models is financing components with variable cash flows, such as subscription-based or usage-dependent services. Banks are developing mechanisms to mitigate risks by requiring minimum usage commitments or incorporating early payment acceleration clauses. By minimizing variable components, banks create more predictable cash flow models, enhancing the viability of these financing structures.

The success of embedded sales finance depends heavily on robust technology infrastructure. Banks must integrate digitalization, machine learning, and AI to efficiently manage receivables, track transactions, and monitor compliance across global markets. Advanced AI models are critical for projecting cash flows, identifying trends, and dynamically adjusting portfolios in response to geopolitical changes or economic shifts.

Embedded sales finance is poised to become a cornerstone of corporate financial strategy over the next decade. A few pilots have been completed in Asia and most global banks are focused on the market; some have acquired stakes in existing providers.

There is clear client demand for solutions that optimize balance sheet management and enhance operational flexibility.

## The Role of Technology and Data

Proprietary technology and robust data analytics are at the core of modern receivables finance. By integrating AI and machine learning, banks can predict trends, assess cross-border risks, and manage complex financing structures.

Global connectivity further enhances this capability. Banks with international reach can aggregate data across multiple geographies to identify trends and structure financing solutions. For example, a bank operating in 15 countries might use its global data to showcase to a client how buyers in different regions are performing, enabling more informed decision-making.

## Structuring for Success: Risk Mitigation and Collaboration

Effective structuring is critical to the success of receivables finance solutions. Banks often explore mechanisms such as first-loss agreements with sellers to provide additional risk mitigation to maximize the reach of any financing extended.

These agreements, which require sellers to absorb initial losses in case of buyer default, offer greater assurance to financing parties and investors. By embedding themselves in commercial contracts through tri-party agreements, banks can ensure transparency and accountability across all stakeholders.

## The Road Ahead: A Decade of Opportunity

The convergence of digitalization, AI, and embedded finance is reshaping the receivables finance landscape. Over the next decade, the focus will be on scalability, transparency, and risk mitigation. As clients seek more flexible and efficient solutions, banks that invest in proprietary technology and data-driven insights will lead the way.

These innovations are not just about improving existing processes – they are redefining the relationship between banks, businesses, and trade. By embracing these changes, the industry can unlock new opportunities for growth and resilience in a globalized economy.



# Shaping Tomorrow's Trade Finance: The Power of Innovation

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The world of trade finance is undergoing a critical transformation. Reliant on paper-based processes for hundreds of years, the industry has long faced inefficiencies arising from the complexity of its ecosystem, which involves multiple parties such as buyers, sellers, banks, and logistics providers.

While digitization efforts began over a decade ago, they initially focused on converting paper documents into structured data using technologies such as optical character recognition (OCR). Today, with significant progress in this area, the industry is shifting its focus toward leveraging this structured data for actionable insights and transformative working capital and trade services solutions.

## A Crossroads for the Industry

Trade finance is not an area where individual organizations can progress in isolation. Transactions typically involve five to eight parties, spanning multiple jurisdictions, each with distinct legal frameworks and varying degrees of technological adoption. This interdependence means the pace of innovation is often dictated by the least advanced participant.

In particular, initiatives relating to digital documents (dDocs) require public-private partnership, as many documentation requirements relating to trade are detailed in legal frameworks. Despite these challenges, the industry is now at an inflection point, driven by collaborative efforts across private organizations, public institutions, and regulatory bodies.

## Overcoming Paper's Constraints

Paper-based processes in trade finance have long been a bottleneck. Documents such as bills of lading, letters of credit, and promissory notes require physical handling, which introduces delays, increases the risk of errors, and complicates fraud detection. Additionally, manual processes are resource-intensive, limiting scalability and efficiency.

The digitization of trade documents addresses these issues on multiple fronts:

- **Speed:** Digital documents can be transmitted instantly, bypassing the delays associated with shipping and processing physical papers.
- **Security:** Digital formats reduce the risk of forgery and tampering. Data integrity can be preserved through encryption and other technologies.
- **Efficiency:** Automated data validation allows systems to identify inconsistencies or risks, improving fraud detection and compliance monitoring.
- **Integration:** Digital documents can be directly linked to other systems, enabling end-to-end process automation (straight through processing (STP)) and real-time updates across the supply chain.

The final hurdle in this transition has been the legal validation of digital documents as equivalent to their paper counterparts. This not only facilitates their adoption but also allows documents to be originated digitally from the outset, further simplifying the process.

It is essential to have agreed rules in place relating to the storage and security of digital records to ensure trust in the infrastructure that will ultimately replace the paper-based system.

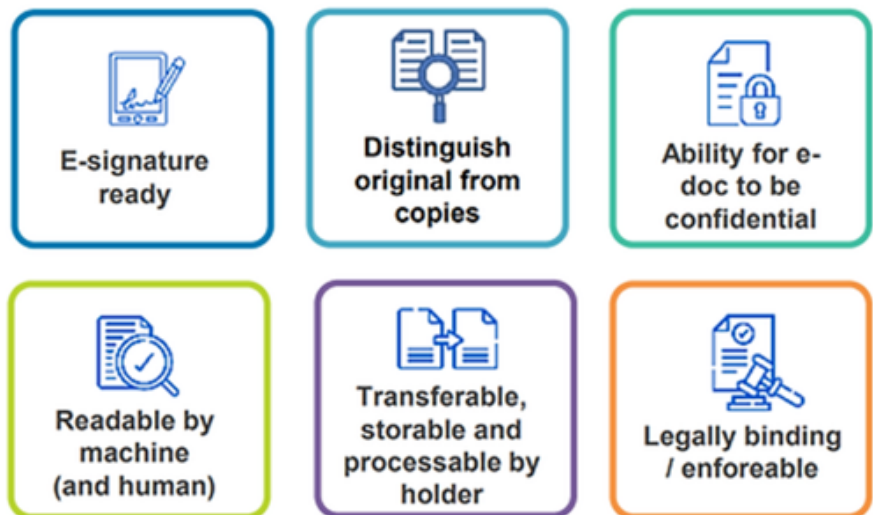
### MLETR Takes a Step Forward

The United Nations Commission on International Trade Law's Model Law on Electronic Transferable Records (MLETR) is the key framework driving the shift from paper to dDocs. It redefines ownership and validation of trade documents, allowing them to exist purely in digital form.

Historically, ownership of trade assets like bills of lading or letters of credit has been tied to physical documents. MLETR removes this reliance, enabling a shift toward entirely paperless transactions via key principles. These include the requirement for a transferable record and clarity regarding how that record is controlled. It also stipulates the use of a "reliable system" to ensure each document is unique, is exclusively controlled from its creation until it is no longer legally valid, and contains all the information of the corresponding paper-based document.

This reliable system maintains control and preserves document integrity by specifying, for instance, rules regarding access, security, auditing or regulatory assessments.

Figure 53. What's new with MLETR



Source: Citi Trade Partnerships and Innovation

One recent milestone has been the UK's adoption in 2023 of a legal framework for digital trade documentation based on MLETR. The Electronic Trade Documents Act (ETDA) 2023 is important because many business sectors are effectively administered under English Law, including international commercial contracts, banking and financing, maritime and shipping, mergers and acquisitions, dispute resolution and international arbitration. Several of these are relevant to the world of trade. More generally, many countries' legal systems are based on English Law.

**Figure 54. Adoption of MLETR**

Continued implementation and jurisdictional expansion



Source: UNCITRAL, Model Law on Electronic Transferable Records, 2024. Disclaimer: For illustrative purposes only and is subject to change

Despite the importance of the ETDA, progress will take time and will be uneven across jurisdictions. Even those countries that use English Law will have to incorporate their own version of ETDA into their legal framework. Adoption of standards depends on local legal recognition, as seen in regions like the United States, where New York's regulatory framework will likely need to align with global trends to facilitate broader adoption.

Nevertheless, progress is tangible and several non-English Law countries are also now advancing MLETR-related legislation. The dialogue in the industry has decisively shifted from "What if?" to "What now?" as industry players prepare to act on these advancements.

### Low-hanging Fruit

With the groundwork laid by MLETR, the focus now shifts to practical implementation. Given the scale of the challenge in digitizing trade, it is important to focus on areas that will deliver the greatest benefits first. There are two main types of dDocs:

1. **Verifiable:** This document exists in a system, and the focus is on ensuring that the data within it is accurate. This involves verifying that the document itself exists and that its data is correct. Typical examples include: bills of lading, certificates of origin, insurance certificates and inspection certificates.
2. **Transferable.** This type of dDoc is more complicated than the verifiable type. It refers to a durable, digital, negotiable instrument, which confers actual ownership of the associated asset. They therefore come with stricter constraints and regulatory guardrails given that they address issues of ownership and transfer. Examples include: negotiable bills of lading, letters of credit, promissory notes, bills of exchange and certificates of title.

Given the disparity in complexity between the two types of dDocs, it makes sense to pursue the adoption of both types in tandem. Verifiable dDocs are easier to implement than transferable dDocs, which require additional frameworks to handle legal, regulatory, and practical complexities. However, transferable dDocs have the potential for more substantial impact.

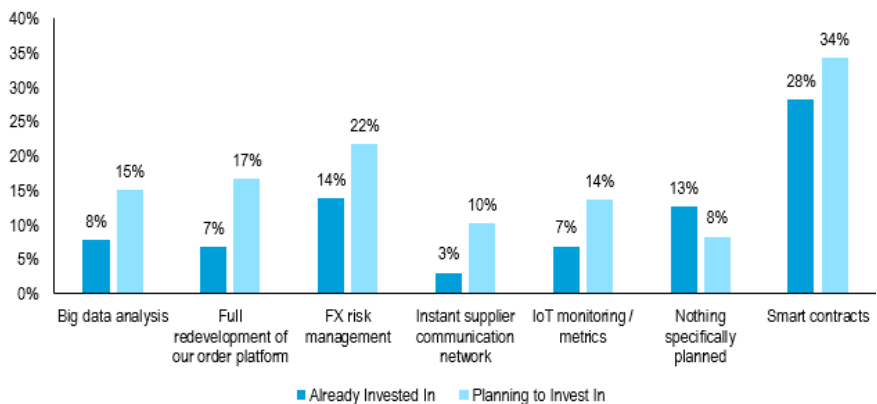
## Smart Contracts and Blockchain: The Missing Link?

Blockchain is commonly known as the distributed ledger technology (DLT) that underpins cryptocurrencies.

As the technology has matured, the industry has begun to explore use cases that leverage the immutable nature of DLT – it cannot be tampered with or manipulated – and its ability to offer visibility to all parties in a chain. These characteristics can provide comfort to the main parties involved in trade transactions and build trust – a modern solution to a very old problem.

In the long term, DLT seems likely to be the foundation of the ‘reliable system’ required by MLETR given its potential to ensure the interoperability needed for title documents, including negotiable instruments. However, blockchain technology combined with smart contracts, is already unlocking new possibilities for automating and securing trade finance transactions; corporates are keen to capitalize on this application.

**Figure 55. What real time supply chain funding / visibility functionality have you or are you planning to invest in over the next 6-12 months?**



Source: East & Partners Large Corporate Survey 2024, Citi Treasury and Trade Solutions

Smart contracts are self-executing agreements with terms directly written into code. They enable automated actions based on predefined triggers, reducing reliance on manual intervention and ensuring transparency.

## Collaboration and Future Outlook

Innovating the trade ecosystem continues to be challenging, given multiple parties, rules and regulations, different countries and industries (some with specialized requirements) and the complex interaction between physical and financial supply chains.

The successful implementation of innovative technologies requires collaboration among banks, governments, and industry bodies. Organizations like the International Trade and Forfeiting Association (ITFA), International Chamber of Commerce (ICC) and Bankers Association for Finance and Trade (BAFT) play a vital role in standardizing practices and facilitating adoption.

However, individual banks and parties in the trade ecosystem – from buyers and sellers to logistics providers and port authorities – must also modernize their internal systems to take full advantage of these advancements. Close alignment between business, product, technology and product teams will be essential.

Looking ahead, the trade finance industry is set to evolve into a fully digital ecosystem, leveraging e-documents, blockchain, and AI. While adoption will vary by region and industry, concentrated efforts in high-impact areas are already delivering significant benefits.

Technology such as smart contracts can help companies to improve their working capital by facilitating a return to just-in-time inventory management. Looking further ahead, once the multiplicity of trade documents has been fully digitized, a next step will be to integrate Internet of Things (IoT) sensor data so that payments can be executed based on automated information provided by goods in themselves.

In this transformative era, the industry's collective focus remains on enabling faster, more secure, and more efficient access to liquidity, driving global trade forward. This is especially important in today's rapidly evolving trade environment, where small and medium-sized companies play an ever more important role in supply chains, and geopolitical turbulence is growing. By embracing innovation, trade finance can overcome its historical challenges, meet the demands of a rapidly changing world and drive economic growth.

## Conclusion

### Global Trade Transformed: Businesses Embrace Innovation and New Opportunities

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Uncertainty is a constant in business. Despite the best efforts of economists, macroeconomic shifts remain unpredictable, and political developments are equally volatile. Unforeseen events—such as the pandemic—can reshape the landscape in an instant. Although these factors are important, the path taken by companies – and countries – often depends on their outlook, as much as events. The outlook of corporates and their suppliers appears more optimistic now than a year ago.

This report – and the data that underpins it – makes clear that businesses of all sizes perceive a dynamic, innovative, and forward-looking business environment. They are eager to engage and seize the opportunities on offer.

The specter of trade disputes and tariffs has the potential to disrupt the established global order, hinder growth, and unsettle markets. However, in reality, corporates have been diversifying their supply chains as part of a de-risking strategy for several years. And while geopolitics are important, our large corporate survey indicates that among firms planning a shift in their supply chains proximity to major suppliers and cheaper labor/production costs remain the most important drivers.

Moreover, while our economists acknowledge the potential threat to the U.S. and global economy from higher tariffs, they largely see Trump's tariff threats as a negotiating tactic. Meanwhile, although the war in Ukraine continues and tensions persist in the Middle East, commodities markets do not appear to be pricing in a material escalation. On balance, the global economy's underlying fundamentals should provide a tailwind for businesses.

Most importantly, trade – and the pursuit of ways to increase it – remains a key driver of the global economy. While the U.S. has only completed the United States-Mexico-Canada Agreement (essentially restructuring a predecessor agreement) since 2017, the European Union has completed nine agreements, as has China (including the 15-nation Regional Comprehensive Economic Partnership)<sup>45</sup>.

The trade landscape will continue to evolve in ways that create new opportunities for economic integration. While firms seek to reduce concentration risk by diversifying away from China, alternative manufacturing hubs in Vietnam, India, and Latin America are benefiting from increased investment and trade flows. Businesses are engaging in a strategic redistribution of their production networks; our economists believe they will also use the opportunity to increase efficiency.

This report reveals a global trade landscape defined not by contraction but by transformation. Companies are adapting to new realities through innovation, strategic diversification, and efficiency-driven realignment. As businesses continue to harness technology, optimize logistics, and expand into new markets, the trajectory of global trade remains one of progress and opportunity. Looking ahead, the agility and resilience demonstrated by firms today will serve as the foundation for sustained economic growth in the years to come.

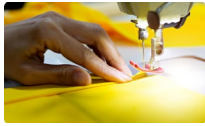
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<sup>45</sup> <https://rtais.wto.org>

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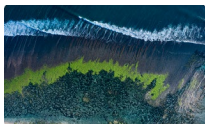
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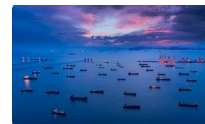
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