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TOP of MIND

GLOBAL TRANSIT & TRADE: IN ROUGH WATERS

Transit on the seas—the planet's most important means of trade—has become more fraught amid geopolitical and climate-related disruptions, particularly in the Red Sea. What this more challenging maritime environment means for inflation, companies, and supply chains is Top of Mind. Admiral James Stavridis and Brookings' Bruce Jones agree that this is an unparalleled moment for maritime risk, with the security of trade and critical undersea infrastructure under threat. DHL's CEO Tobias Meyer explains that, unlike during the pandemic, excess capacity is dampening the impact of shipping disruptions today, but longer routes are adding time and cost to maritime transit. GS GIR expects only a modest rise in inflation from these higher costs—unless the Strait of Hormuz closes—and sees risks and opportunities for freight-exposed companies. Lastly, we assess the broader supply chain impacts, with Meyer arguing that beyond physical disruptions, regulatory disruptions are an underappreciated driver of rising trade and supply chain complexity that is set to continue.

"In my career, I've never seen a higher level of maritime risk than I do today.

- Admiral James Stavridis

While physical disruptions to trade are a major worry on a day-to-day basis right now, regulatory disruptions to trade have actually kept us most busy in recent years.

- Tobias Meyer

The importance of the oceans hasn't diminished; if anything, it has grown. 90% of all global trade, 70% of global oil and gas supply, and 60% of global food supplies move by sea… And while technology and data seem to operate in a different realm, they don't, because 95% of the world's data flows on undersea cables lining the seabed floor.

- Bruce Jones"

WHAT'S INSIDE

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Macro news and views

We provide a brief snapshot on the most important economies for the global markets

US

Latest GS proprietary datapoints/major changes in views

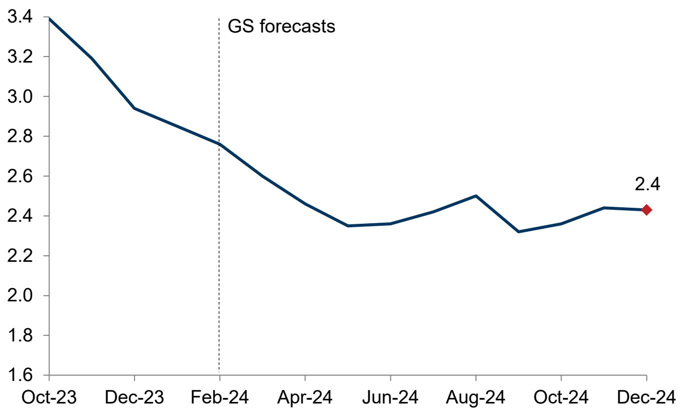
- We now expect the first Fed cut in June (vs. May before) on the back of comments from Fed officials and the release of the Jan FOMC meeting minutes, and now expect four cuts in 2024 and four cuts in 2025 (vs. five and three before).

Datapoints/trends we're focused on

- Disinflation, which we expect more of despite likely high corporate profit margins this year, with core PCE inflation falling to 2.4% yoy by Dec.
- US growth; we expect above-consensus real GDP growth of 2.2% in 2024 (on a Q4/Q4 basis) and see a below-consensus 15% probability of recession over the next 12m.

US inflation: in its final descent

Core PCE inflation, % change yoy



Source: Goldman Sachs GIR.

Japan

Latest GS proprietary datapoints/major changes in views

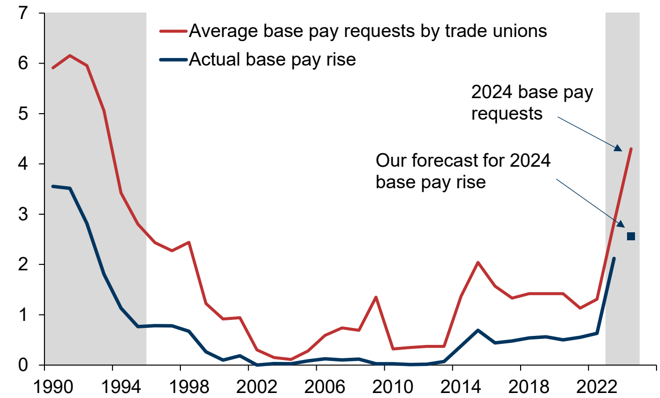
- We recently lowered our 1Q24 real GDP growth forecast to -0.3% qoq ann. (from 0.4%) mainly to reflect a downward revision to our capex forecast.

Datapoints/trends we're focused on

- BoJ policy; we expect the BoJ to terminate negative interest rate policy and exit yield curve control in April, and then hike rates gradually until the BoJ policy rate reaches 0.25% in mid-2025.
- *Shunto* wage negotiations; labor union wage hike requests suggest the rise in base pay could be close to 3% versus our initial expectation of 2.5% yoy (from 2.1% in 2023).

Japanese *shunto* negotiations: aiming higher

Actual and requested base pay rise, % change yoy



Note: Shaded areas show periods of high inflation.
Source: JTUC-RENGO, Keidanren, Goldman Sachs GIR.

Europe

Latest GS proprietary datapoints/major changes in views

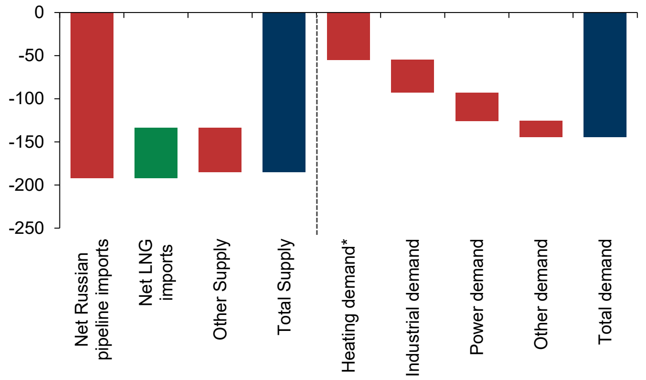
- We recently pushed back our forecast for the first ECB rate cut to June from April following upside surprises in Euro area core inflation and recent ECB commentary, and now expect five cuts in 2024 and two cuts in 2025 (vs. six and one previously).
- We recently raised our December 2024 Euro area core inflation forecast to 2.4% yoy (from 2.2%) following stronger-than-expected February inflation data.

Datapoints/trends we're focused on

- BoE policy; we expect the first BoE rate cut in June, followed by eight back-to-back cuts until the policy rate reaches 3%.
- Europe's energy crisis, which we don't believe is over yet.

European gas: still in structural deficit

NW Europe 2024 GS est. supply & demand vs. 2019, mcm/d



**Local distribution center demand, which consists mostly of residential and commercial heating.*
Source: Bloomberg, Goldman Sachs GIR.

Emerging Markets (EM)

Latest GS proprietary datapoints/major changes in views

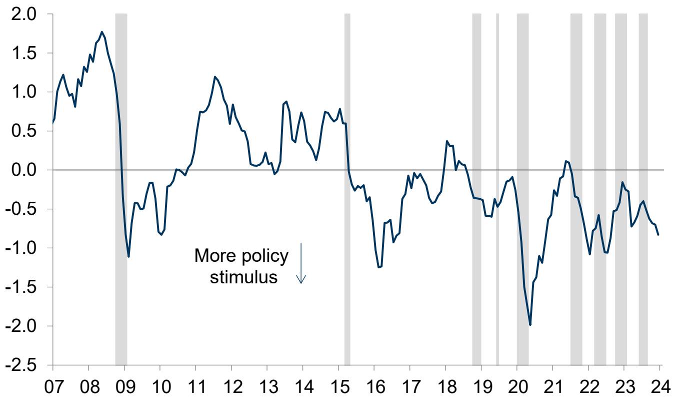
- No major changes in views.

Datapoints/trends we're focused on

- China macro policy; we expect more fiscal, monetary, and property easing this year to try to achieve the ambitious growth target of "around 5%" set at the "Two Sessions."
- China inflation; we expect prices to remain low this year due to food price deflation, manufacturing overcapacity, and the ongoing property downturn.
- EM monetary policy; we expect the EM rate cutting cycle to continue broadening amid ongoing disinflation.

China macro policy: easing for growth

China domestic macro policy proxy, z-score



Note: Shaded areas are periods when China CAI 3mma growth was below 5%.
Source: Haver Analytics, Wind, Goldman Sachs GIR.

Global transit & trade: in rough waters

Transit on the seas—the planet's most important means of trade—has become more fraught and undersea infrastructure more vulnerable amid numerous geopolitical and climate-related developments. In the Red Sea, Houthi rebels have attacked over 40 commercial ships amid the ongoing war in Gaza, and several undersea cables carrying the internet and global telecommunications were recently cut. China has pushed to assert control over parts of the South China Sea. The Panama Canal is suffering from a prolonged drought. And Russia has built up naval bases in the Arctic as the melting ice caps open a new sea route there. The implications of this more challenging maritime environment for inflation, companies, supply chains, and the world more broadly, are Top of Mind.

We first turn to Admiral James Stavridis, a retired four-star US naval officer and former Supreme Allied Commander of NATO, to understand just how fraught the seas are today. He says that in his four-decade naval career, maritime risk has never been higher, which he argues owes largely to the return of great power competition between the West, Russia, and now China—for which the oceans are a main theater. And he stresses that under threat is the security of not only trade routes but also critical undersea infrastructure immensely important to the global economy, such as the 500 undersea cables that the internet runs on. While Stavridis is concerned that the US naval fleet may be too small and spread too thin to defend the oceans alone, he takes comfort in alliances, and is relatively optimistic about the prospect of a global maritime coalition that includes China emerging to protect vital undersea infrastructure, and free transit on the high seas more broadly.

Bruce Jones, Senior Fellow at the Brookings Institution, agrees that this is an "unparalleled moment" for maritime risk, as never in modern history have two of the world's most powerful economies—the US and China—been both intimately linked by sea-based trade and at such a high risk of engaging in a naval war. He argues that as geopolitics and globalization increasingly come into conflict and disrupt trade in important waterways, the West is ill-prepared to defend the oceans given a lack of coordination between shippers and navies and the dwindling of Western naval power over recent decades.

So, what impact is this fraught environment having on maritime transit, and global commerce more broadly, today? We turn to Tobias Meyer, CEO of DHL Group, the world's leading logistics firm, for a first-hand perspective. He notes that the meaningful disruption in Red Sea transit, as well as the drought-related shipping disruptions in the Panama Canal, aren't having a major effect on maritime/global commerce because they are occurring against a backdrop of relatively soft demand and ample shipping capacity—in sharp contrast to the shipping disruptions caused by the *Ever Given* blockage of the Suez Canal during the pandemic, when fleet capacity couldn't ramp up quickly enough to meet high demand. That said, rerouting container ships around Africa is adding significant time and cost to maritime transit, with Asia-Europe voyage times 30-40% longer and end-to-end interland transport costs 10-20% higher, as China to Europe seafreight rates have soared over 200%.

Amid another key worry this year—inflation stickiness—we ask whether these higher costs could derail further disinflation and the start of rate cuts by the major central banks. GS senior global economist Joseph Briggs believes the answer is no. He doesn't see much risk to global inflation from these higher costs—estimating a boost of only 0.1pp to global core inflation—given the small share that seafreight rates comprise of the final price of goods as well as the limited scope for amplification of price increases through the supply chain amid the current relatively benign macro environment.

Inflationary impacts could become much larger, however, should maritime disruptions stemming from the conflict in Gaza further disrupt energy flows. GS Head of Oil Research Daan Struyven argues that while crude oil prices have remained relatively subdued so far and an oil embargo akin to the one in 1973 that caused a dramatic spike in prices looks unlikely, a closure of the Strait of Hormuz—through which nearly a fifth of global oil supplies flow—could cause oil prices to spike by 20% or more, which GS economists find could have significant implications for inflation (and GS senior energy strategist Callum Bruce argues that no matter what happens to crude oil flows, the structural bull market for tankers is here to stay).

But even if the current shipping delays and higher freight costs won't likely have large implications for global inflation, what about for freight-exposed companies? GS transport analyst Patrick Creuset argues that the surge in freight stocks following the initial spike in freight rates will likely prove short-lived, especially as substantial new vessel capacity enters the container shipping market this year. However, he expects air freight-exposed companies to benefit as the more challenging maritime environment leads some trade to shift from sea to air. And he thinks logistics companies look well-positioned as their services become more valuable as the complexity of supply chains increases. On the flipside, GS retail analysts Richard Edwards and Kate McShane note that shipping delays could affect some retailers' revenues if goods don't arrive in time. And while companies haven't been as concerned about higher freight rates, McShane argues that US hardline retailers' ability to pass on costs is limited, so increased shipping costs could ultimately impact margins.

Finally, we explore the implications of the current fraught environment for trade patterns and supply chains more broadly. Meyer observes that while physical disruptions to trade are understandably in focus, regulatory disruptions are an underappreciated driver of rising trade complexity. This more complex regulatory landscape, together with the challenging pandemic experience, has motivated a rise in "nearshoring"—which GS Chief LatAm Economist Alberto Ramos finds some early evidence of in Mexico and expects to continue, albeit very gradually, with GS EM strategist Caesar Maasry arguing that should benefit select Mexican equities. But Meyer notes that the larger trend in supply chains has been "omnishoring"—companies building out more complex supply chains to reduce vulnerabilities. And he expects this trend to continue, with global supply chains becoming increasingly complex and volatile amid today's more challenging geopolitical and climate backdrop.

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Interview with Admiral James Stavridis

Admiral James Stavridis is a retired four-star US naval officer and formerly served as Supreme Allied Commander of NATO. He is Partner and Vice Chairman of Global Affairs at The Carlyle Group and the author of *Sea Power*. Below, he says that he has never seen a higher level of maritime risk than today, which, he argues, requires a global maritime coalition to address.

The views stated herein are those of the interviewee and do not necessarily reflect those of Goldman Sachs.

Allison Nathan: Your naval career spanned over four decades, culminating in your role as Supreme Allied Commander of NATO. How does maritime competition and risk today compare to what you've witnessed during your career?

Adm. James Stavridis: In my career, I've never seen a higher level of maritime risk than I do today. That owes first and foremost to the return of great power competition, which we thought was basically over when the Soviet Union collapsed. But over the last several decades, China has risen and has become a very serious naval power, with the largest navy in the world and more warships than the US. Russia has also shed new light on its broader intentions in Europe with its invasion of Ukraine, and, for all its challenges, has continued to finance a very powerful navy. And while the great powers increasingly come into conflict, smaller actors with capable naval assets like Iran and North Korea have also shown aspirations that threaten the West. The oceans are no doubt one of the main theaters for all this competition.

The wave of terrorism that has persisted since 9/11 also continues to play out on the seas. Houthi terrorists are active in the Gulf of Aden/Red Sea and have attacked dozens of merchant ships. Unlike the Somali pirates of the past, the Houthis are seagoing warriors with sophisticated weapons systems, sensors, communications, and tactics—not unlike US Navy SEALs. So, this terrorism poses a real threat to maritime security. On top of all these threats, profit-driven piracy also remains a substantial problem in places like the Gulf of Guinea on the West Coast of Africa. The convergence of all these threats means that maritime risk is particularly acute today.

Allison Nathan: The other major maritime risk seems to be the vulnerability of undersea infrastructure, and cables in particular. How concerned are you about that risk?

Adm. James Stavridis: If you ask people what the internet runs on, most will say satellites. But it actually runs on less than 500—not millions, not tens of thousands—undersea cables embedded in the deepest parts of the sea. These cables are a point of immense vulnerability that vessels, submarines, and unmanned vehicles can destroy or manipulate for intelligence purposes. And such attacks can be made to look like an accident or a failure of material. So, the vulnerability of these undersea cables is very concerning, as is the vulnerability of the places where the cables finally come up to land, which are very significant and not terribly well-defended chokepoints.

Allison Nathan: Whose responsibility is it to protect these cables that run largely through international waters?

Adm. James Stavridis: The responsibility rests with everyone who desires a functioning global economy. The US, for its part, has accepted this responsibility in principle, but the level of interagency coordination is daunting, with no one agency able to sufficiently protect these cables alone. The Department of Defense is obviously necessary to provide the military support for such protection. But the CIA is also needed to provide intelligence, the Department of Commerce to understand the trade flows, the Department of Homeland Security to protect the vulnerable nodes on US shores, etc. So, this is no small task even within the US, but the effort must go far beyond the US, requiring global cooperation. Just as all countries have a vested interest in avoiding a nuclear war, and thus engage in arms control, all countries should have a vested interest in protecting the global economy. That includes Russia and especially China. Indeed, any effort to protect this critical infrastructure—and freedom of transit on the high seas more broadly—must include China to be successful.

Allison Nathan: But are we likely to see that type of cooperation given the great power competition you mentioned, especially from China? If anything, it feels like we're moving in the opposite direction with the very notion of freedom of the seas under threat right now.

Adm. James Stavridis: You're right to be concerned, especially about where China will land on this given the geopolitical and economic tension between China and the US/West now. But between the US, NATO, Japan, South Korea, Australia, and New Zealand, countries accounting for over 60% of global GDP are already cooperating on protecting freedom of the seas. Russia and a few other pariah nations are unlikely to join this effort, as they arguably have less to gain from it. But China, which accounts for 25% of global GDP and is immensely dependent on global trade in terms of both their goods exports and commodity imports to sustain growth, has tremendous incentive to join a coalition that defends freedom of transit on the high seas. And my bet is that China will be in this over the long term because they must be for the sake of their economy and their broader interests.

Allison Nathan: But how do you square this relatively optimistic view on Chinese cooperation vis-à-vis protecting the high seas with the current tensions between China and the US/Western allies in the South China Sea?

Adm. James Stavridis: Protection of global trade routes and China's aspirations in the South China Sea should be thought of as two separate issues. As I said, China has a vested interest in ensuring freedom of the high seas. China's territorial claims over the South China Sea, a vast body of water half the size of the continental US, is a separate problem. Other countries in the region, including the Philippines—a treaty ally of the US—dispute these claims, which have been adjudicated in the international courts and rejected. But this territorial dispute between China, the US and, above all, the regional players around the South China Sea, is discreet and manageable; it will continue to simmer, but most likely will remain contained.

A more concerning flashpoint in the region is Taiwan. Taiwan declaring independence from Mainland China would cross a non-negotiable red line for the latter. Such a declaration seems unlikely on a 5-to-10-year horizon; Taiwan's new president-elect, William Lai, doesn't seem inclined to push the button on independence. So, as long as the Taiwan independence issue remains quiet and the South China Sea dispute remains manageable, Mainland China should be an able and willing participant in the coalition to maintain freedom of the seas.

Allison Nathan: The largest maritime risk today is not in the waterways of the great powers, but rather in the Red Sea. Are you concerned the worst is yet to come there?

Adm. James Stavridis: It's difficult to be sure that the worst is behind us—as long as the fighting in Gaza continues, risks of further disruptions and threats to maritime security will persist. One threat that particularly worries me is the potential for Iran to plant sea mines in the waters of the Red Sea or, even worse, the Strait of Hormuz, which they've attempted in the past. That said, I'm not overly concerned about a large escalation in maritime disruptions from here. That view admittedly hinges on how the war in Gaza evolves. But my sense is that the conflict will probably subside on a 2-to-3-month horizon because, at that point, Israel will have completed its military campaign and the international community will have likely brought in a peacekeeping force. And as the conflict subsides, so should Houthi attacks on ships. Iran also has an interest in ensuring Houthi attacks don't escalate, because it knows that if they do, future Western strikes would likely target not only Houthi assets in Yemen, but also Iranian assets—whether that be Iranian ships, offshore oil and gas platforms, or, if it comes to it, munitions factories in Iran—to send a signal that such attacks won't be tolerated.

Allison Nathan: What about the Black Sea shipping disruptions? Is the worst behind us there?

Adm. James Stavridis: Yes, shipping disruptions in the Black Sea related to Russia's invasion of Ukraine, which initially led grain prices to spike, are very likely behind us. Russia's naval fleet is very capable, but around a third of it is now at the bottom of the Black Sea, including the aircraft carrier *Moskva*—the flagship of Russia's Black Sea fleet—due to Ukrainian drone and missile strikes. So, Ukrainian grain is still flowing out of Odessa through the Black Sea, and I don't see that changing.

Allison Nathan: Beyond the Black Sea, what might be the implications of Russia's buildup of Arctic naval bases?

Adm. James Stavridis: As climate change and the melting ice caps open up new oil and gas resources, fisheries, and trade routes, the Arctic is becoming another theater for great power competition, especially when we consider who surrounds it. Russia sits on the Arctic Ocean's front porch as the country with by far the longest Arctic coastline, and on the back porch sit seven NATO nations—Canada, the US, Denmark by virtue of Greenland, Iceland, Norway, Finland, and now Sweden. In short, the Arctic is setting up to be a thunderdome for economic and geopolitical conflict as these two sets of nations vie for the same resources and trade advantages. NATO is actively preparing for this rising threat by putting in place training, systems to operate more effectively in the region, more intelligence gathering, etc. and US Navy SEALs, whom we famously and correctly think of as operating in the deserts of Iraq and mountains of Afghanistan, recently created a new specialized unit that will focus on the Arctic.

Allison Nathan: We've talked about the obvious hot spots for maritime security. What else should we be watching?

Adm. James Stavridis: One thing the US doesn't do well is look south often enough. Developments are currently bubbling up in Venezuela that pose risks to global commodity markets and the possibility of real conflict in the Americas, which we tend to think of as almost impossible. Venezuelan dictator Nicolás Maduro has asserted claims to around two-thirds of neighboring Guyana, where immensely valuable oil deposits have recently been discovered, and has moved troops to the border. In response, both the US and UK, as Guyana's former colonial power, have moved warships south. And Brazil, who won't allow Venezuelan troop movements through its territory, has also moved troops to its border with Venezuela and Guyana. So, the situation is tense and could lead to a spike in geopolitical risk in the region—as well as oil prices—should Maduro decide à la Putin to invade. My current assessment is that Maduro won't make that leap, but this is certainly a situation worthing watching.

Allison Nathan: So, the US now has to defend the seas around South America, the Red Sea, the South China Sea, and beyond. Are you worried the US is spread too thin?

Adm. James Stavridis: I am worried that the US is spread too thin if we try to do all of this ourselves. The US has a very capable navy comprised of ~300 ships that include nuclear-powered aircraft carriers, the quietest nuclear submarines in the world, and sophisticated strike destroyers and cruisers like the ones I commanded. This compares to China's navy that has roughly 350 ships that are generally smaller and don't benefit from the operational experience and system of naval bases around the world that the US possesses. So, between outright numbers and overall capabilities, a head-to-head match-up between the US and China would be close, and I would be more comfortable if the US enlarged its fleet to 330-350 ships, which studies suggest would be more appropriate.

But the good news is that the US is not the world's sole policeman, nor should it be. The US and its allies have long realized that we are stronger together, and US allies have their own powerful maritime capabilities. Britian and France both operate nuclear-powered submarines equipped with nuclear-tipped ballistic missiles. They and Italy also have capable aircraft carriers. Japan is doubling its defense budget and will direct much of it to its navy, which is already very capable. South Korea also has a good navy, and Australia and Singapore both have small but excellent ones. So, the joint maritime coalition of the West matches up favorably to China. That said, if Russia joins forces with China, a large amount of capability would move to that side of the ledger. For now, I don't see China falling into the Russian orbit; if anything, China might one day dominate Russia; but I don't see a true alliance between the two that would unite their capabilities anytime soon.

Interview with Tobias Meyer

Dr. Tobias Meyer is CEO of DHL Group. Below, he discusses the state of global commerce from DHL's bird's-eye vantage point, explaining that excess capacity in the overall system is dampening the impact of shipping disruptions today. But he cautions that regulatory—rather than physical—disruptions to trade are an underappreciated driver of rising trade complexity.

The views stated herein are those of the interviewee and do not necessarily reflect those of Goldman Sachs.

Allison Nathan: What role does DHL play in the supply chain and global commerce?

Tobias Meyer: As a logistics company, DHL facilitates a broad range of global trade by air, rail, road, and sea. We provide international express shipping and courier services for businesses and consumers, warehouse and process cargo, and facilitate postal, commercial, and eCommerce shipments across and within continents. So, we have a front row seat to global supply chains and commerce.

Allison Nathan: From that seat, what are the biggest disruptions to trade right now?

Tobias Meyer: While physical disruptions to trade are a major worry on a day-to-day basis right now, regulatory disruptions to trade have actually kept us most busy in recent years. Global trade boomed in the 1990s and early 2000s as the World Trade Organization (WTO) facilitated multilateral trade agreements, dispute settlement mechanisms, and other elements that made it easier for countries and companies to engage in global trade. That's unfortunately no longer the case—multilateral trade liberalization has slowed, and arguably stalled, over the past 5 to 10 years, and new bilateral trade agreements have emerged less frequently. Many jurisdictions have enacted higher hurdles to trade and tariffs as part of industrial policies in support of domestic industries.

On top of that, sanctions have become more prominent amid rising global geopolitical tensions, and the extraterritorial reach of regulations has grown. Europe, for example, is pushing new ESG reporting requirements that will affect companies operating abroad. This more fraught regulatory landscape has created significant complexity for the companies we service, who must comply with a slew of new regulations that sometimes differ across jurisdictions. So, regulatory disruptions have been a large and generally underappreciated feature of global trade.

Allison Nathan: All that said, the extent to which deglobalization is actually happening seems to be a matter of debate. But the evidence you're observing on the ground would suggest otherwise?

Tobias Meyer: Globalization has no doubt decelerated. It is well known that trade is cyclical; it expands during periods of strong growth, and contracts during slower growth/recessionary environments, so the slowdown in trade over the last 12-18 months amid a weaker macro backdrop has not been surprising, and nor does it provide much information about the broader globalization trend. But what is telling regarding this trend is the multiple of global trade relative to GDP growth over time; in the two decades following the WTO's establishment, global trade grew at a substantial multiple to global GDP growth on average, and as much as 2x faster during globalization's heyday in the 1990s/early 2000s. But over the last decade or so, trade has only grown roughly in line with GDP growth; the multiple has vanished, and we see no evidence of that changing. So, the shift away from globalization is real.

> "Regulatory disruptions have been a large and generally underappreciated feature of global trade."

Allison Nathan: In this context, how disruptive have the shipping attacks in the Red Sea been to global trade?

Tobias Meyer: The impact of any disruption ultimately depends on the underlying supply-demand balance of the overall system at the time of the disruption. These attacks have not been that disruptive because the supply-demand balance in the system is relatively relaxed today. As I just mentioned, global trade has slowed cyclically in the recent period. And against this muted demand, the capacity of the shipping fleet that carries the containers by which most goods are shipped nowadays is rising as shipping companies used their pandemic-era windfalls to invest in new vessels that are now entering the market. The young age of the current fleet also suggests that ship scrapping will remain low. So, while the Red Sea attacks are leading shippers to embark on longer voyages around Africa that are absorbing several percentage points of global container capacity, this short-term capacity shortage isn't having a particularly large impact on the overall system.

In contrast, the blockage of the Suez Canal in March 2021 as the *Ever Given* ran aground had a disproportionately large impact because the shipping system was already exceptionally tight; demand was high as consumers shifted from services to goods amid the pandemic, and fleet capacity couldn't easily ramp up as it takes a minimum of three years to build and deliver new vessels. So, the supply-demand backdrop matters, and excess capacity in the system today leaves it less vulnerable to disruptions.

Allison Nathan: Even if the Red Sea attacks aren't as disruptive as past episodes of disruption, don't longer voyage times nevertheless increase the costs of transit?

Tobias Meyer: Yes, Asia-Europe voyage times have increased by around 10 days, which is a roughly 30% rise, and the cost of the waterborne journey has increased by a similar amount. Of course, seaborne transit is only one aspect of the voyage to move a container from point A to point B, so these increased costs are driving a roughly 10-20% rise in end-to-end interland transport costs. Now, seafreight rates have spiked by more than the rise in seaborne costs because ships arriving 10 days late has led to some short-term capacity shortages. But these shortages, and the associated spike in seafreight rates, should resolve relatively quickly.

Allison Nathan: But trade disruptions are also occurring in other waterways such as the Panama Canal, and maritime transit is generally more fraught. So, is a large/longer-lasting spike in freight rates akin to the pandemic possible?

Tobias Meyer: While the drought-related disruptions in the Panama Canal have also impacted the supply-demand balance in the shipping market, a pandemic-level increase in freight rates seems unlikely. Again, the balance of the overall system is relatively relaxed right now and should remain so at least into 2025 and 2026.

That said, continued physical disruptions to trade are likely for the foreseeable future given the more fraught state of the world. And other disruptions, such as port strikes that lead to capacity shortages, could occur. Labor action has been quite pervasive over the last 6-12 months. And contract negotiations between the International Longshoremen's Association—North America's largest union of maritime workers—and ocean carriers kick off this week. If the union were to strike, that would significantly affect cargo moving through US East Coast and Gulf ports. So, we shouldn't be complacent.

Allison Nathan: Even if the pandemic-era tightness in shipping doesn't return, are the higher costs and risk of maritime transit leading companies to shift to other means of transport, such as airfreight?

Tobias Meyer: We are not observing a rise in airfreight relative to container shipping right now. That's a bit surprising but speaks to today's relatively soft trade environment; there's just not much urgency to moving goods right now. Demand from Asian eCommerce platforms that export substantially into developed economies are driving the growth in airfreight markets today, not a redirection of seafreight to airfreight. However, that could change as we move through Q2 and the second half of the year as global trade potentially recovers from its current doldrums.

Allison Nathan: More broadly, rising geopolitical tensions and the pandemic have spurred a lot of talk about companies rewiring their supply chains. What, if any, shifts in supply chains have you observed in recent years?

Tobias Meyer: Transpacific trade from China to the US has taken a hit—while on the one hand it has proven resilient relative to the significant increase in US-China trade hurdles, on the other hand, it hasn't grown at all, which is remarkable given the size and growth of these economies. Places like Mexico and Southeast Asia have benefitted from this shift. Demand for DHL services in these locations has surged; our warehouses are sold out and we've purchased more land to be able to build more capacity quickly.

But recent global supply chain shifts cannot be simply characterized as a redirection away from China or a rise in "nearshoring" that the recent focus on Mexico reflects. Mexico has certainly become an even more important trading partner and market for the US in recent years, but the same isn't necessarily true for trade between Eastern Europe and the EU. And while we see evidence of some companies shifting the assembly of final goods out of China, many companies still source critical inputs from the country, consistent with the growing share of trade between some countries and China.

Rather, the larger trend is "omnishoring"—companies building out more complex and diversified supply chains for their most critical components and products to minimize the single chokepoints that were so damaging to global operations during the pandemic. So, even places like the Middle East, such as Turkey, have become more important in global supply chains. That said, many companies seem to be finding that even if they successfully reduce the vulnerability of their supply chains, by, say, diversifying away from a single large assembly location in any one country, a critical part or component still comes from one place and the supply chain flows back together eventually, so diversifying only goes so far.

Allison Nathan: So, are we more likely at the beginning or the end of this trend of increasing complexity and volatility in global supply chains?

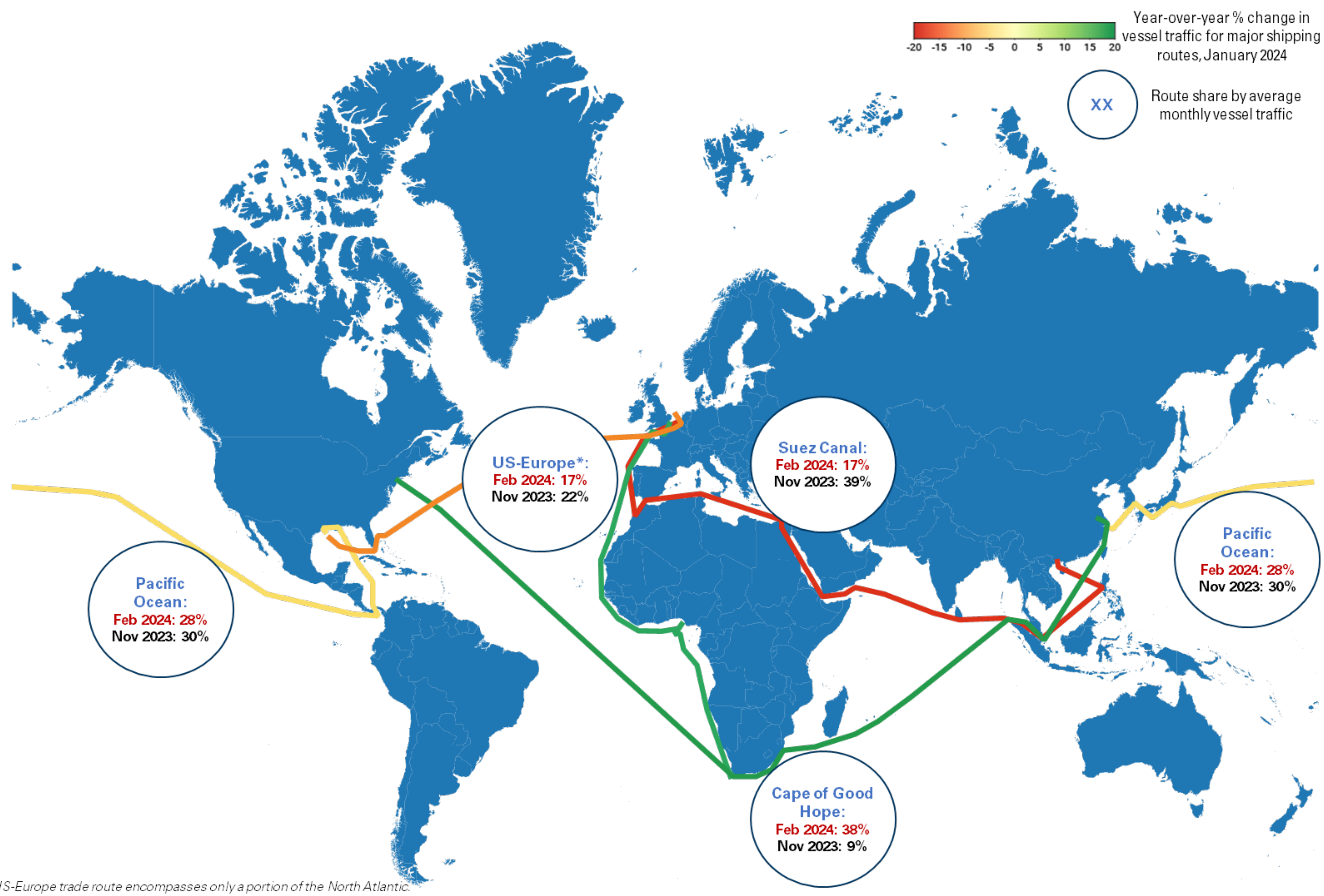
Tobias Meyer: Global supply chains will undoubtedly remain complex and volatile for the foreseeable future given the current state of the world and challenges on the horizon. In the US, the outcome of November's presidential election could have significant consequences for policy and the US' relationships with key trading partners. In Europe, the rising popularity of far-right populist parties could usher in more protectionist trade policies. And globally, the numerous geopolitical conflicts around the world look set to continue and drive a wedge between large nations. The high inflation environment of recent years may also lead to further action from labor unions, and potentially strikes in crucial parts of the global trading system. And climate change will likely continue affecting global shipping and trade. So, we're living in a world in which the sources of disruption to supply chains and global commerce are very active, and are set to remain so. And companies will likely continue to introduce more complexity into their operations to manage those headwinds.

Allison Nathan: Beyond the factors reshaping supply chains, what other trends in global supply chains are you keeping a close eye on?

Tobias Meyer: While geopolitical storm clouds loom large over global supply chains, developments in technology and renewables could affect supply chains for the better in the years to come. Advancements in robotics, artificial intelligence, and machine learning are poised to tremendously improve the performance and efficiency of supply chains, benefitting not only the companies we service, but also consumers and the world at large. And the ongoing transition toward renewable fuels can make sea, air, and land-based supply chains cleaner by greenifying transportation. Good progress has already been made on this front, with electric delivery vehicles and trucks becoming more widespread, but much remains to be done to reduce the carbon emissions generated by supply chains. So, while the rising complexity and volatility of supply chains warrants our attention, so do these more positive trends.

Global shipping disruptions, mapped out

Container ships are increasingly avoiding the Suez Canal amid increased maritime risk, instead opting for longer trips around Africa's Cape of Good Hope



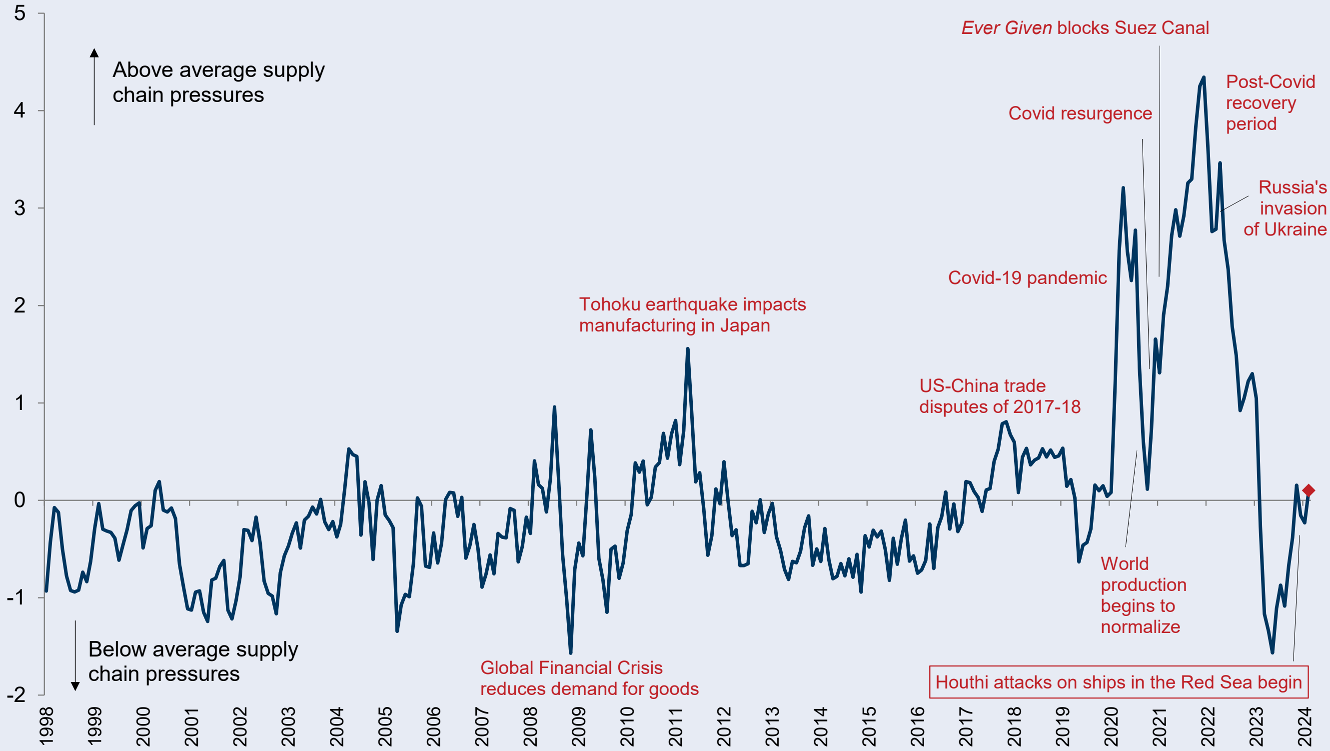
*US-Europe trade route encompasses only a portion of the North Atlantic.
Note: Displayed routes are representative of a much larger set of route trajectories.
Methodology: Major container vessel route changes compare all container vessel traffic (which we quantify by multiplying carrying capacity by distance travelled) of Jan 2023 to Jan 2024.
Source: Refinitiv, Flanders Marine Institute, Goldman Sachs GIR.

Special thanks to Dan Duggan and Aditi Singh for the GS Data Works shipping route analysis.

Measuring supply chain pressures

While the Global Supply Chain Pressure Index, developed by the Federal Reserve Bank of New York, has increased slightly recently, it remains near zero, indicating that supply chains are functioning well and in line with average levels of pressure...

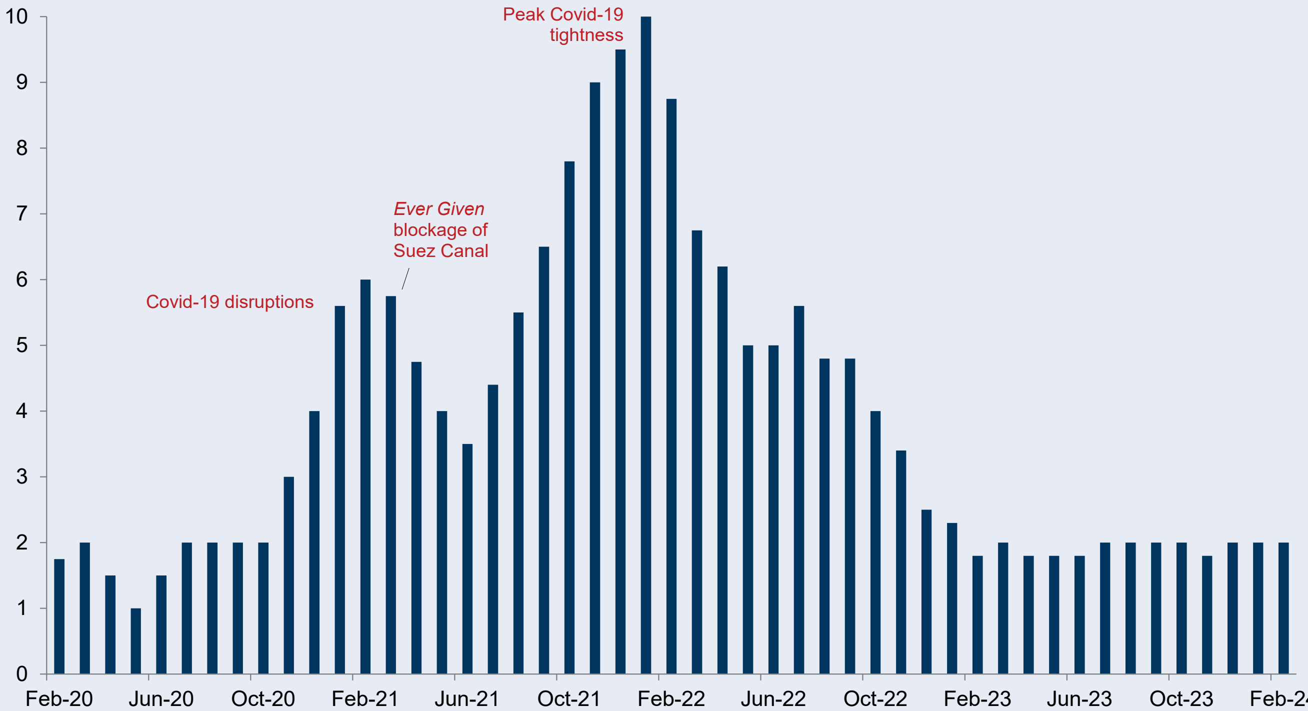
Global Supply Chain Pressure Index (GSCPI), standard deviations from average value



Note: The GSCPI aggregates transportation cost measures as well as manufacturing data from PMI surveys across seven major economies: Mainland China, Euro area, Japan, South Korea, Taiwan, UK, and US. The index is normalized to show standard deviations from historical averages. For more information see here.
Source: Federal Reserve Bank of New York, Bureau of Labor Statistics, Harper Petersen Holding GmbH, Baltic Exchange, IHS Markit, Institute for Supply Management, Haver Analytics, Bloomberg, compiled by Goldman Sachs GIR.

…and Goldman Sachs' US Supply Chain Congestion Scale—which assesses how supply chains are faring on a scale of "fully open" (0) to "fully bottlenecked" (10)—has remained at 2, indicating that supply chains remain fairly open

Goldman Sachs US Supply Chain Congestion Scale



Note: The GS Supply Chain Congestion Scale aggregates a range of variables tied to overall congestion including ships at anchor, days to deliver, various dwell times, intermodal volume, and velocity statistics amongst others. Numbers reflect the average of weekly scores seen in each respective month.
Source: Goldman Sachs GIR.

Special thanks to GS US transportation analyst Paul Stoddard for chart.

Interview with Bruce Jones

Bruce Jones is Senior Fellow at the Brookings Institution and author of *To Rule the Waves*. Below, he argues that globalization and geopolitics are set to increasingly come into conflict on the high seas, which could be devastating for the global economy—and beyond—without a deep rewiring of globalization.

The views stated herein are those of the interviewee and do not necessarily reflect those of Goldman Sachs.

Jenny Grimberg: You've written extensively about the importance of maritime power. How does control of the oceans shape global commerce and the balance of power in the world?

Bruce Jones: For almost 500 years, the state, kingdom, or empire that dominated the seas also dominated global affairs, from the Venetians in the 15th century, to the Ottomans, the Portuguese, the Dutch, the Spanish, the French, and the British up until the early 20th century. The ability to field the world's most powerful navy has historically allowed empires to control the flow of trade to their advantage. This dynamic persisted until the end of WWII, when the US emerged as the only genuinely global naval power and instead used this power to drive the liberal world order as we know it—a world of free commerce and freedom of navigation at sea. The US did so without major constraint for the entirety of the Cold War and post-Cold War period, until now, when its dominance at sea is being challenged.

Jenny Grimberg: But does such dominance still matter as much today given the increasingly digital world we live in?

Bruce Jones: Yes; the importance of the oceans hasn't diminished; if anything, it has grown. 90% of all global trade, 70% of global oil and gas supply, and 60% of global food supplies move by sea. The seabed is home to vast deposits of rare earth metals and minerals, which will be important in the coming century. And while technology and data seem to operate in a different realm, they don't, because 95% of the world's data flows on undersea cables lining the seabed floor. So, the world of data, technology, and finance are profoundly and intimately tied to the seas, and quite vulnerable at sea.

Jenny Grimberg: How concerned are you about the vulnerability of undersea infrastructure today, and is enough attention being paid to this risk?

Bruce Jones: Undersea cables are simultaneously globalization's most important and most vulnerable network—a very concerning combination. Russia—whose submarine fleet is still quite powerful and sophisticated—is sailing both that fleet and surface ships very close to critical pieces of undersea infrastructure, including the data cables running from New York to London that serve as the jugular of the global financial system and the Norwegian pipelines vital for delivering natural gas to Europe. And instances of Russia reportedly sabotaging financial and energy cables in the Baltic Sea have already occurred. More recently, several data cables running under the Red Sea were damaged amid the conflict there. So, the threats to undersea infrastructure are very real. But, until recently, Western governments thought of undersea cables as civilian infrastructure rather than security assets/targets and so didn't protect them. The Baltic Sea sabotage last October woke governments up, and they've moved quickly to bolster defenses in the region—a 10-navy coalition has formed to try to limit Russia's ability to threaten infrastructure there. But the Norwegian Sea and North Atlantic are also home to hugely vulnerable infrastructure that needs protecting, which is difficult to do when the West is already deploying ships across several other regions to counter rising threats to its sea power and to globalization itself.

Jenny Grimberg: So, the size and power of naval fleets hasn't kept pace with the increase in the oceans' importance for global commerce and security?

Bruce Jones: No. The size and scale of Western naval power has dwindled. Over the last 40 years, the US has turned its strategic attention away from the seas, largely due to the absence of a major competitor at sea following the Soviet Union's collapse and the multiple land wars in the Middle East, which shifted the US' focus toward air power, special forces, Marines, etc. So, even though US and UK navies have begun to expand, the West doesn't have nearly enough capacity to defend trade routes or deter adversaries, precisely at a moment when such defense is crucial.

Jenny Grimberg: How does the fraught environment for global maritime commerce/security today compare to past periods of maritime trade disruptions?

Bruce Jones: This is truly an unparalleled moment. Many past instances of great power tensions and trade disputes have occurred, but never in modern history have the two most powerful countries in the world—currently, the US and China—been at such high risk of engaging in a naval war while also operating economies linked by sea-based trade. The closest historical parallel is Germany and Great Britain in the 1890s, when Germany tried to limit Great Britain's power on the sea lanes that were vital to both economies, which was ultimately a major contributing factor to WWI. Very similar dynamics are playing out today in the Western Pacific, which is both globalization's most important waterway and the epicenter of great power tensions. So far, this build-up of tensions hasn't affected commerce—trade is still flowing freely through the South China Sea and Taiwan Strait—but that could very well change if tensions continue to rise.

Jenny Grimberg: One of the biggest maritime disruptions today is happening in the Red Sea. What are the implications of this disruption for global commerce?

Bruce Jones: The ongoing Red Sea disruptions should be viewed through two lenses: their direct impacts, and the broader phenomenon of challenges to the free flow of commerce, and both are significant. Roughly 10% of global oil and 30% of the world's containers flow through the Red Sea, and it serves as the principal trade route between Europe and Asia. Most shipping is now rerouting around Africa's Cape of Good Hope, which is adding significant time and cost to journeys and taking a substantial amount of logistics capacity out of play. While the stockpiling of capacity in the wake of the pandemic has buffeted the global economy from the worst of these effects for now, prolonged Red Sea disruptions could significantly disrupt global supply chains and raise inflation. The US is leading the military response to the disruptions partly to try and prevent that from occurring, but mostly because it doesn't want to establish a precedent that any actor can disrupt the free flow of commerce at sea. That said, the US is more concerned about a potential escalation of the Middle East conflict to the Strait of Hormuz, which would be far more disruptive to the global economy given that 70% of the world's supply of oil and gas flows through those waters, though such an escalation seems unlikely because the actor with the most to gain from such a disruption—Iran—also benefits significantly from the free flow of oil and gas through the Strait.

Jenny Grimberg: The war in Ukraine also grinds on. What lessons can be learned from the Black Sea disruptions?

Bruce Jones: The Black Sea disruptions were the first warning sign of the phenomenon I discussed in *To Rule the Waves*, that geopolitics and globalization would come into conflict as sea-based trade began to clash with naval-based geopolitics. Russia's invasion of Ukraine very quickly spilled into the Black Sea, disrupting the 30% of the world's supply of food and fertilizer that flowed through those waters. While those flows have largely been restored—initially by the UN-brokered Black Sea Initiative and, once that fell apart, by Ukraine successfully deterring Russia's Black Sea fleet using unmanned surface vehicles—this event was an early manifestation of the significant disruptions that could occur when geopolitics spill into the very seas where globalization flows.

Jenny Grimberg: Amid these geopolitical conflicts, what should be done to better protect vital trade routes?

Bruce Jones: Navies and shippers need to coordinate on a much larger scale—only limited communication exists between the two today. A lone example of a credible Western navy protecting ships flagged to its own country was the French fleet escorting CMA CGM's ships through the Red Sea. The other major Western shipping carriers are based in Denmark and Germany, countries that don't have major navies. And while the US has a major navy, it has no major shipping companies. The only country besides France that has both is China. While they've been escorting their own ships through the Gulf of Aden, they haven't taken on the broader role of protecting commerce writ large that the US and the UK—the two vestigial guardians of the global order—have taken on in the Red Sea. And watching the interchange between the major shippers and the US Navy there only reinforces, in my mind, that very little communication and understanding exists between them.

Jenny Grimberg: Beyond geopolitics, what impact—if any—is climate change having on maritime trade?

Bruce Jones: The ongoing Panama Canal disruptions due to drought is the first instance of climate change directly affecting a major commercial sea lane. And more ports will likely grapple with more powerful storms and higher sea levels as the climate continues changing. The impacts on trade patterns will ultimately depend on a country's engineering capabilities. The few countries that have the advanced marine engineering capabilities to develop infrastructure that can sustain storm surges, etc. will profit, while those that don't—especially small island states in the Pacific, which are being squeezed by both geopolitics and climate change—will suffer. That said, while climate change is an enormously consequential issue for the world, it will likely be of only modest importance for shipping over the next couple of decades, with geopolitics and shifting trade patterns likely to play a much larger role. For example, while melting sea ice in the Arctic is making the Northern Sea route more viable for trade between China and Europe, that route may not be as consequential as initially predicted if a rewiring of trade away from China were to occur. That said, as energy exploration becomes easier and the Arctic increasingly becomes an economic zone of opportunity, a build-up in geopolitical tensions is likely there.

Jenny Grimberg: With all the recent focus on supply chain shifts, are we seeing evidence of a rewiring of global trade?

Bruce Jones: Despite all the chatter, no meaningful shifts in trade between China and the West have occurred so far. While direct trade between the China and the US has decreased, trade between China and Mexico has increased, with US and China trade simply being rerouted through Mexico. So, China's importance in trade terms hasn't diminished, and the volume of goods flowing through Chinese ports continues to grow. And though Western technological alliances have begun to shift as the politics around technology—and microchips in particular—have grown more fraught, that has yet to show up in a significant way in overall trade figures.

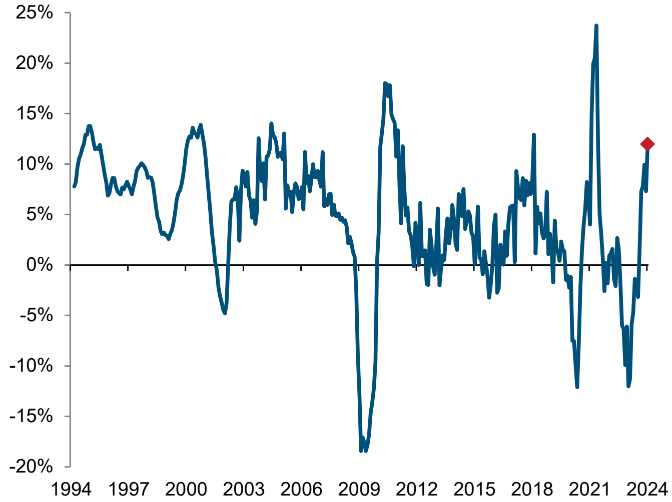
Jenny Grimberg: But with geopolitics and globalization increasingly coming into conflict, is such a rewiring inevitable, and what could it look like?

Bruce Jones: While significant appetite for rewiring globalization doesn't seem to exist today, it is the wisest course of action given the immense risk to globalization if the West ends up clashing with China at sea. A naval war between the US and China would be not only devastating in its own right, but also fantastically disruptive to the global economy. Given that risk, we may see movement toward two globalizations, one anchored in China and one in the West, each working on different sea lanes with different naval concerts protecting security and trade flows. NATO is already contemplating new rules of engagement around national flagging—something we haven't seen since the end of WWII. Of course, sustaining peace between the US and China and the freedom of commerce at sea that has enabled the greatest economic boom in history would be vastly preferable. But that's not the world we seem to be sailing into. And rather than having to choose between a future of deglobalization or one of globalization that may feature a devastating naval war, the better option would be a deep rewiring of globalization to reduce the West's dependence on China's sea-based flows. That, together with building much larger navies, is what the West needs to be working on now.

Global shipping disruptions...

Global seafreight volumes have risen in recent months, albeit from low levels...

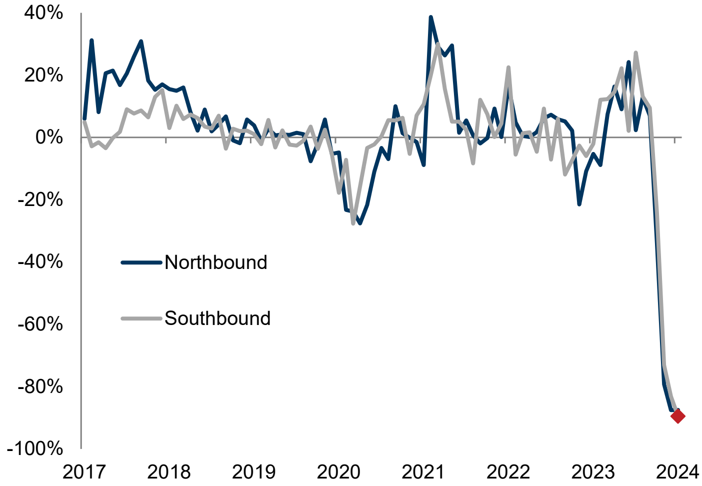
Global seafreight volumes, % change yoy



Source: Port authorities, company data, complied by Goldman Sachs GIR.

...though Suez Canal volumes are down sharply as the conflict in the Middle East continues...

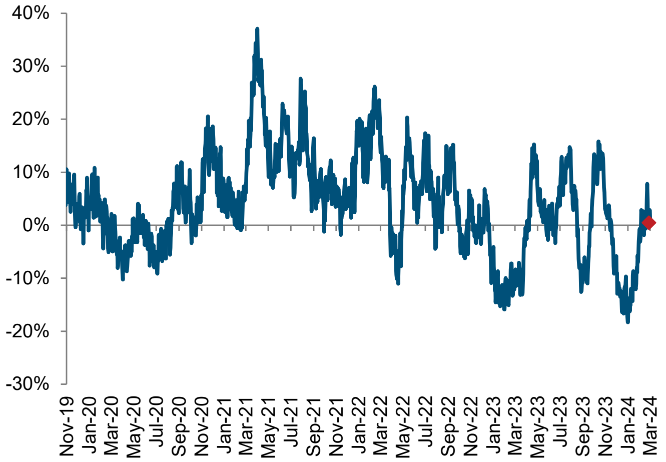
Suez Canal container transits (TEU* capacity), % change yoy



**TEU is twenty-foot equivalent unit, the most common type of cargo ship container.*
Source: Clarksons, compiled by Goldman Sachs GIR.

...and while Panama Canal transits have risen slightly yoy from low levels, shipping activity through the waterway is still muted...

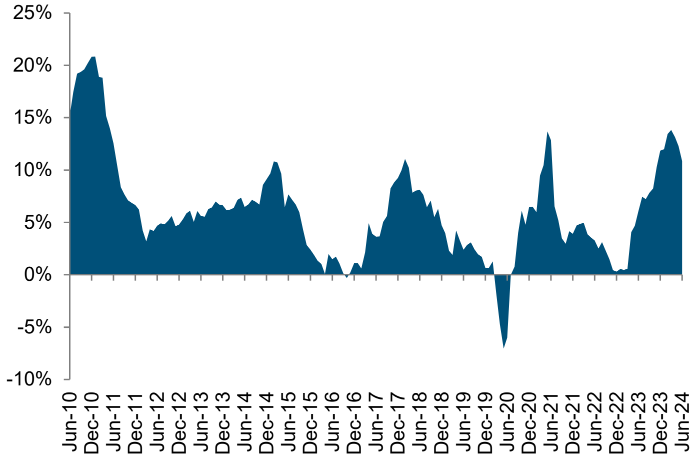
Panama Canal containership transits (TEU), % change yoy



Source: Clarksons, compiled by Goldman Sachs GIR.

...but high numbers of new vessel deliveries should help mitigate the impact of these disruptions

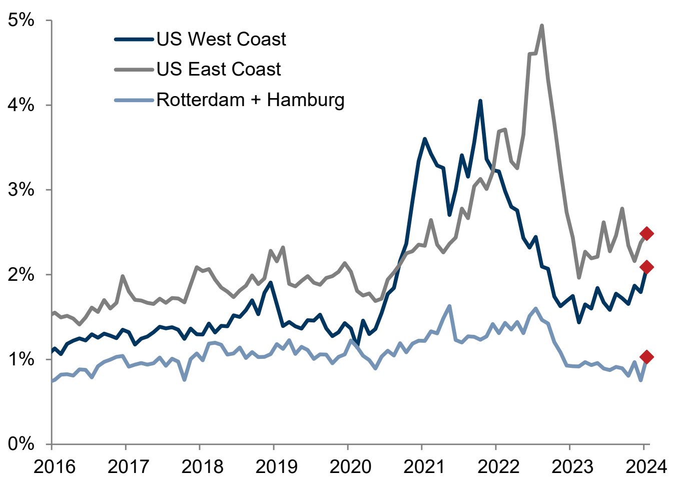
Active fleet growth, % change yoy



Note: Figures beginning in February 2024 are GS forecasts.
Source: Clarksons, Alphaliner, Goldman Sachs GIR.

Shipping disruptions have led to increased port congestion as vessel schedules have become more uncertain...

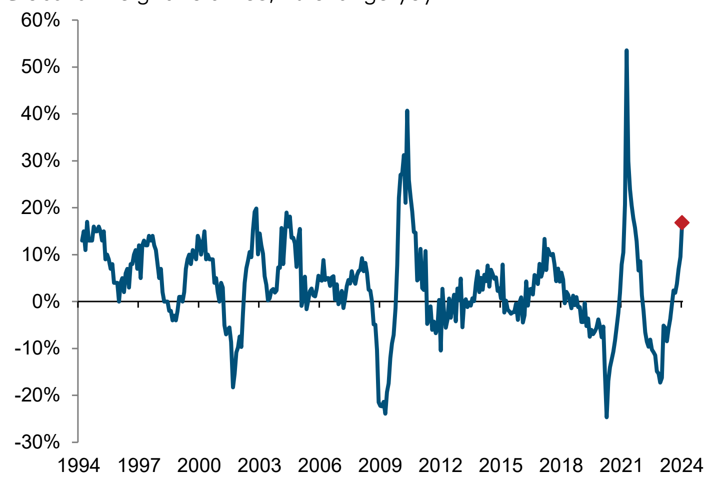
Fleet capacity in port, % of total fleet capacity



Source: Clarksons, compiled by Goldman Sachs GIR.

...and could also impact global airfreight volumes—which are already elevated yoy—as some trade may shift from sea to air

Global airfreight volumes, % change yoy

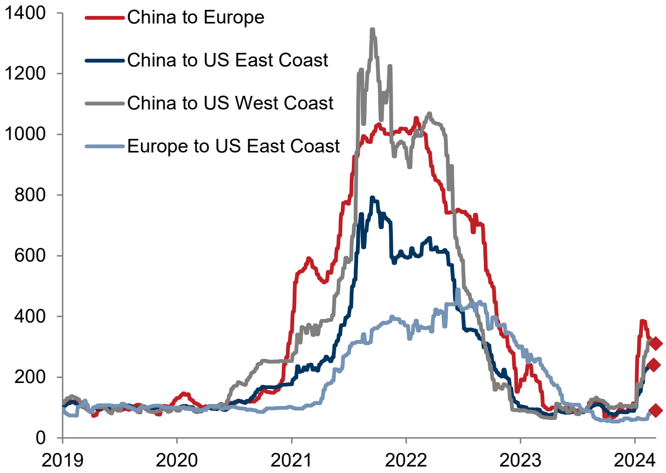


Source: Port authorities, company data, complied by Goldman Sachs GIR.

...have led to higher prices/journey times

Seafreight rates spiked on the disruptions, especially from China to Europe...

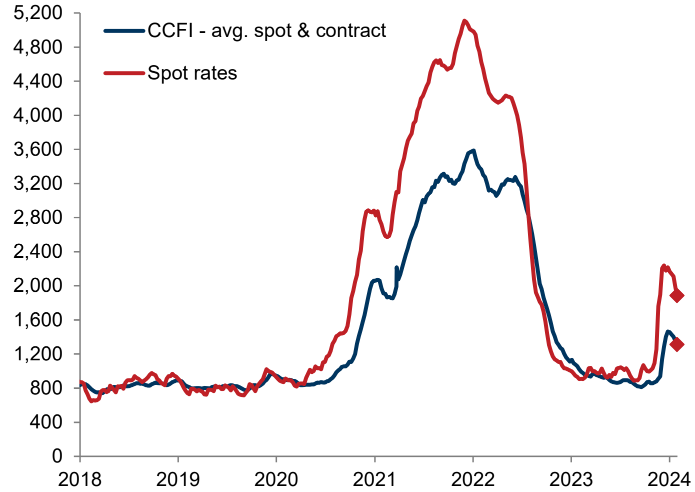
Seafreight rates, index, 2019=100



Source: Bloomberg, Freightos, compiled by Goldman Sachs GIR.

...as did container rates...

China Containerized Freight Index (CCFI)*, spot rates ($/box)

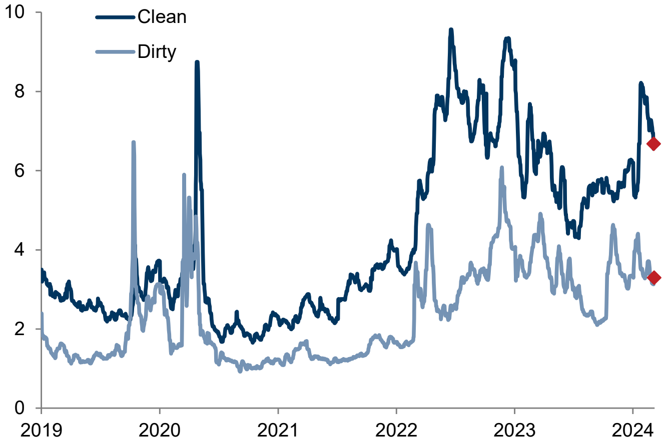


*Based on the price of containers leaving from all major Chinese ports, and a composite of spot rates and contractual rates.

Source: SSE, compiled by Goldman Sachs GIR.

...and oil tanker rates...although all are now off their peaks

Clean and dirty* oil tanker freight rates, $/bbl

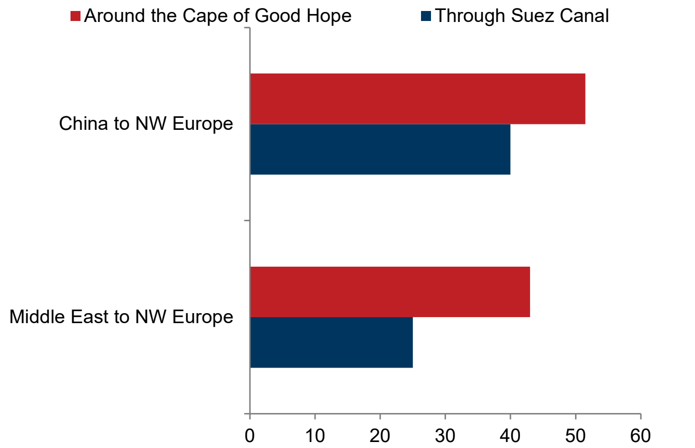


*Clean tankers carry refined products. Dirty tankers carry crude, fuel oils, and intermediate products.

Source: Refinitiv Eikon, compiled by Goldman Sachs GIR.

Journey times to Europe have increased as vessels reroute to avoid geopolitically fraught areas...

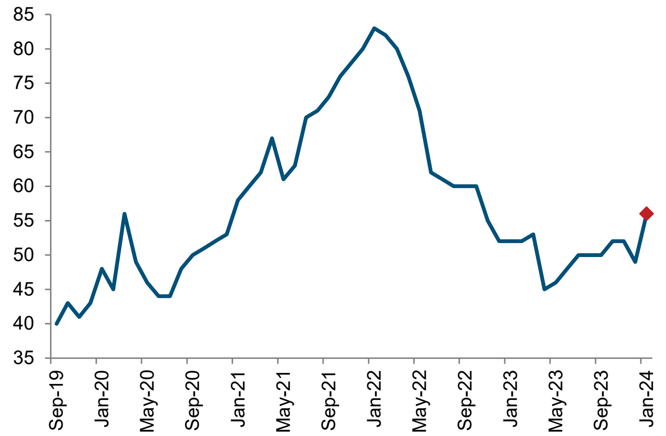
Journey times, days



Source: Goldman Sachs GIR.

...and door-to-door shipping times to the US have risen as ocean carriers have pulled ships from other trade routes to cover the additional distance/capacity needed to go around Africa

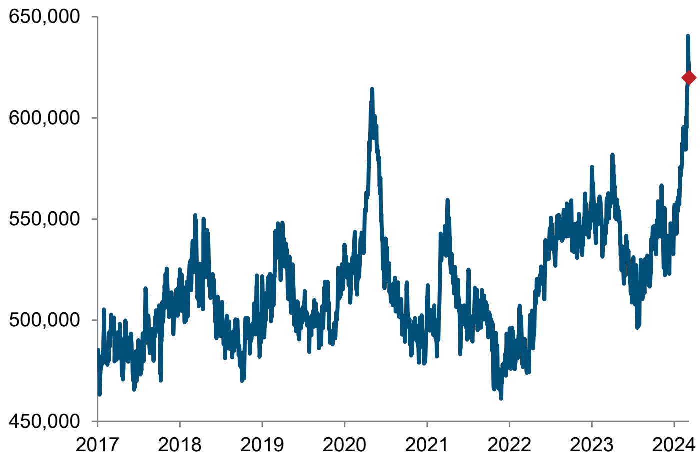
Door-to-door ocean shipping time, China to US, days



Source: Freightos, compiled by Goldman Sachs GIR.

Shipping disruptions are also resulting in goods spending more time on the water

Refined oil products on water, millions of barrels



Source: Kpler, compiled by Goldman Sachs GIR.

Special thanks to GS GIR's Theodora Beadle, Callum Bruce, Devesh Kodnani, and Paul Stoddard for chart data.

Freight rates fading, complexity rising

Patrick Creuset assesses the impact of Red Sea shipping disruptions on global transport markets, arguing that the recent spike in freight rates should fade, but only gradually

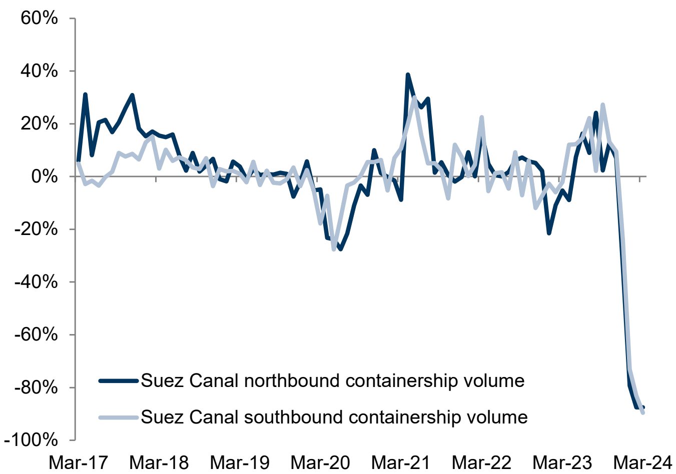
Container shipping vessels carry the vast majority of manufactured goods traded globally, with only a small proportion transported by air or rail. As such, any disruption to the flow of goods on the open seas could lead to major supply chain disruptions and significantly higher transport costs. Indeed, the recent shipping disruptions in the Red Sea have sparked a sharp rise in seafreight rates in a market that has only recently recovered from pandemic-related shocks. While we ultimately think that the recent freight rate spike will gradually fade, as long as the Red Sea disruptions continue, contagion to other trade routes could be in train, and global transport markets remain vulnerable to other exogenous shocks. That said, several areas could benefit from the recent shipping disruptions, including airfreight and logistics companies.

Rising seafreight rates amid Red Sea disruptions…

With the majority of container vessel transit now rerouted around the Cape of Good Hope amid the de facto closure of the Suez Canal, maintaining the same sailing and delivery schedule for Asia-Europe trade now requires more ships. Indeed, we estimate that rerouting away from the Red Sea is absorbing up to an additional 10% of global long-haul container capacity. This supply-demand imbalance was most acute in January as vessels forced to reroute in December were returning late for loading in China, which meant a shortage of vessel space available for export ahead of the busy pre-Lunar New Year period. As a result, freight rates from Asia to Europe increased from around $1,300/forty-foot container (FFE) in early December to around $5,000/FFE in January.

Suez Canal volumes have dropped significantly amid the Red Sea disruptions…

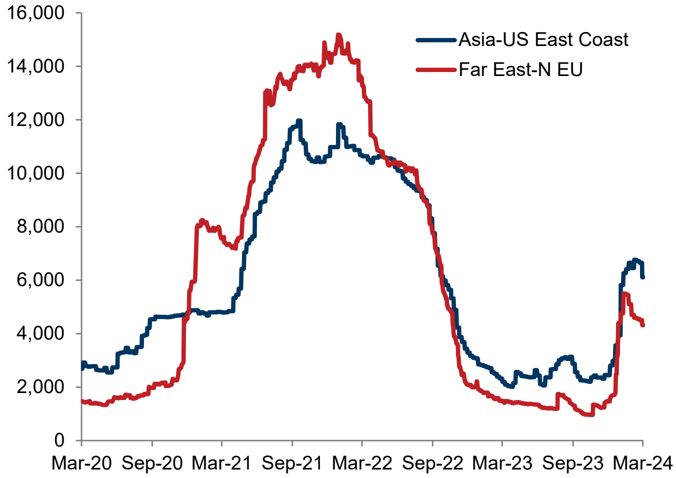
Twenty-foot equivalent unit (TEU) capacity, % change yoy



Source: Clarksons, Goldman Sachs GIR.

…and seafreight rates have spiked, although this has begun to fade in recent weeks

Asia-Europe and Asia-US East Coast freight rates, $/FFE



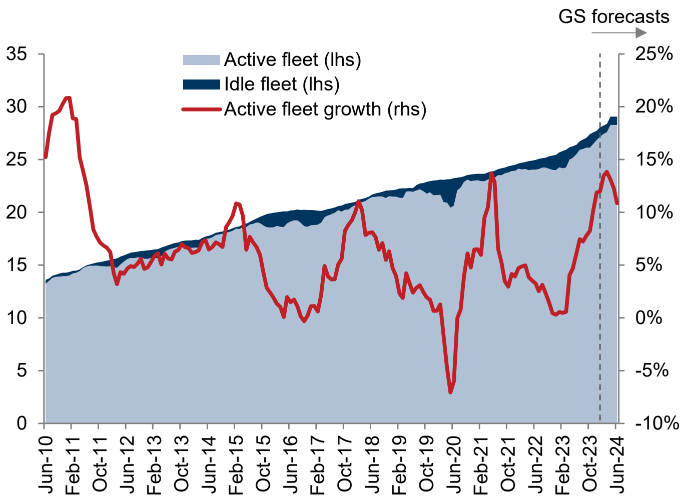
Source: Clarksons, Freightos, Goldman Sachs GIR.

…will fade…

To put today's situation in perspective, the magnitude of the supply-demand shock from the Red Sea crisis is less than half of the 2020-22 Covid disruptions. Today's world containerized shipping capacity is also around 20% larger than it was in Feb 2020, and unlike in 2020, there is a large orderbook of new vessels scheduled for delivery over 2024/25. We expect new ship deliveries at a pace of roughly 0.8% of global capacity per month throughout 2024. So, all else equal, 10-12 months of new deliveries could restore the supply-demand balance to pre-Red Sea disruption levels even with the Suez Canal remaining shut. In the short term, with more of the initially delayed ships having returned to China as well as seasonally lower export demand, the initial increases in Asia-Europe seafreight rates have begun to fade in recent weeks, to roughly 15% below their January peaks.

New ship deliveries should restore the supply-demand balance of freight capacity

Global container vessel fleet capacity (lhs, TEU mn), global fleet growth (rhs, % change yoy)



Source: Clarksons, Alphaliner, Goldman Sachs GIR.

...but only gradually

We expect spot freight rates to continue declining from their January peaks, but only gradually, with rates remaining well above pre-Red Sea disruption and 2019 levels as long as rerouting away from the Suez Canal continues, for several reasons. First, the current supply-demand shock to freight capacity is significant, and relief from new capacity is 2H24 weighted. Second, global containerized trade volumes and thus demand for container space is rebounding from low levels after reaching a cyclical inflection point in 4Q23. Third, the disruption of sailing schedules means that container boxes are in the wrong place, causing localized equipment shortages. Lastly, the rerouting of ships away from the Red Sea could trigger an uptick in inland and port bottlenecks.

Watch for contagion to other trades routes...

More broadly, the longer the Red Sea crisis lasts, the greater the risk of contagion to other trade routes. While the initial spot freight rate increases mainly affected the Asia to Europe trade route, this was followed by significant increases in backhaul (Europe to Asia) and US East Coast (USEC) freight rates, with rates from China to the USEC rising from $2,400/FFE in early December to around $6,000/FFE in recent weeks. As these higher-paying trade routes attract more capacity, tightness in Asia-Europe and Asia-US could, in turn, drive rates up elsewhere. The main cost impact for US importers will likely come after Q2, when annual shipping contracts are renegotiated, likely at significantly higher year-over-year rates.

...and increased vulnerability to additional shocks

While we expect freight rates to retrench, vulnerability to additional exogenous shocks presents upside risk to our mainline view. Indeed, with one of the world's main trade routes essentially closed, the global transport market has diminished capacity to absorb additional disruptions—a dynamic we've seen play out several times in recent years. During Covid, the confluence of a demand shock (services-to-goods shift and government stimulus measures), reduced port productivity, and higher congestion, together with a temporary closure of the Suez Canal due to the *Ever Given* blockage, led to a shortage of containerized shipping capacity.

More recently, while last year's drought-related capacity reductions in the Panama Canal didn't materially impact the market, topping that off with the de facto closure of Suez has driven a rate spike for freight coming into the US via the East Coast. With two of the three main import routes into the US at reduced capacity, more volume is now transitioning through the West Coast and relying on intermodal transportation to reach the rest of the country, making it vulnerable to any additional shocks, such as a stronger-than-expected rebound in global trade or increased industrial action in ports or railways. With every unresolved shock, supply chains become more complex and vulnerable.

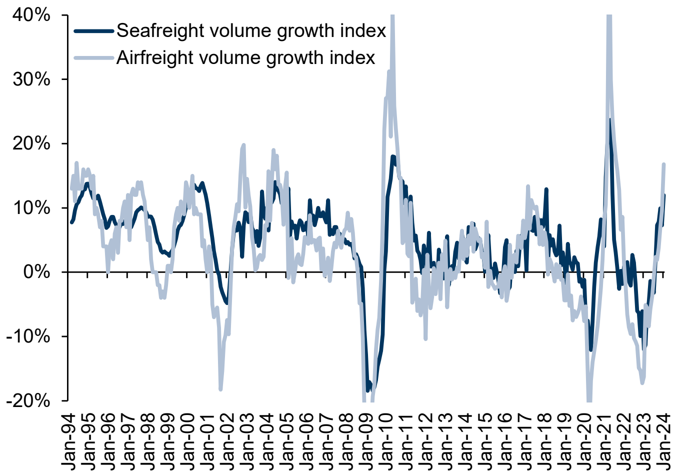
Impact on equities: rising supply chain complexity, air cargo recovery

All told, we think the spike in freight rates from the Red Sea disruptions is a one-off shock in an otherwise oversupplied container shipping market. As such, the market is unlikely to apply a multiple to the earnings beats we expect this year. That said, we see two possible second-order effects of the ongoing shipping disruptions. First, some oceanfreight volume could shift to airfreight and, given the relative sizes of the two markets—airfreight is a fraction of oceanfreight in tonnage terms—even a small shift would have a significant impact on overall air cargo volumes. Such a shift should be supportive for airfreight-exposed companies, with the air cargo market already in the early stage of a cyclical rebound.

The second effect is increased supply chain complexity, which arguably is becoming more structural amid a more multi-polar geopolitical system and increased geopolitical competition. Examples abound, with the closure of a significant amount of airspace between Asia and Europe; more complex multi-sourcing strategies; sanctions and other trade barriers; and Red Sea disruptions. While this is harder to quantify, we believe rising complexity is generally beneficial for logistics companies. The value of their service to clients, solving supply-chain bottlenecks, making supply chains more resilient to shocks, being able to ship quickly via air, automating, etc. is higher in such a world, even if global trade volume growth might turn out lower in absolute terms.

Global airfreight growth has turned positive and could increase further as volume shifts from oceanfreight to airfreight

Global air and seafreight volumes, % change yoy



Source: Port authorities, company data, complied by Goldman Sachs GIR.

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Shipping disruptions: sector impacts

What are you hearing from companies in your sector regarding the impacts of the ongoing shipping disruptions?

Europe Retail

Richard Edwards, GS Equity Research

Bottom line: The shipping disruptions are currently more of an inconvenience than a painful headwind for earnings, and are more likely to impact revenues than margins.

- **Companies are ordering goods ahead of time to ensure that revenues remain unaffected.** Most of our companies say that they are ordering goods earlier than usual given that it will take longer for them to arrive (going around Africa's Cape of Good Hope vs. through the Suez Canal adds roughly two weeks of travel time). So, working capital is rising as inventories increase. While this may be costly, companies hope it will prevent revenue issues from arising. Easter may serve as the true test of whether the disruptions will have revenue impacts—goods will either arrive on time for this busy shopping period, or they won't, potentially causing revenue misses. Next, a British clothing retailer who sources around 80% of its products from China, has flagged the risk of experiencing a stock-out issue sometime around Easter/early Q2.
- **Companies have expressed that they can manage the headwinds to margins by negotiating.** Freight costs account for roughly 5% of cost of goods sold (COGS), and Asia-Europe freight costs have risen from ~$1500/container prior to the recent disruptions to ~$4000/container currently on a spot basis (vs. ~$17,000/container during the pandemic). But no company of any significant size pays the spot rate, and so far, companies have managed to negotiate away much of the increase in freight rates and incremental costs associated with having to travel further distances. Primark, an Irish discount clothing retailer and Maersk's biggest customer, has negotiated costs down to the point where the company estimates this will only cost them 20bp on gross margins—which amounts to a rounding error. If freight costs were to spike significantly from here, the impact on margins would need to be revisited, especially if shipping companies don't honor contracts like they did during the pandemic. But so far this looks like an extreme tail risk, and most companies are treating the disruptions as a transitory issue.
- **Most external factors that affected margins had normalized before the recent disruptions.** The last piece of the puzzle to unwind is FX—most of the companies in our coverage buy in dollars and sell in euros, and they hedge their FX exposures out six months, or sometimes 9-12 months. Those hedges are rolling off this year, and what will happen when the hedges unwind is a point of debate among investors: will companies bank the lower COGS and, in turn, higher gross margins brought about by the weaker Dollar, or will they cut prices? We believe the latter is unlikely, as retailers aren't making outsized profits and have raised prices only enough to keep pace with wage inflation. So, we expect further margin normalization, with margins likely to return to 2019 levels by the end of this year.

US Hardline Retail

Kate McShane, GS Equity Research

Bottom line: Companies are concerned about delays due to the shipping disruptions, which could affect some retailers' revenues, though margins could also be impacted if the recent rise in freight rates persists.

- **Companies have expressed concern about shipping delays.** When we first surveyed our companies in mid-January, they were concerned about delays due to reduced capacity along some shipping routes and containers taking longer to come back owing to increased journey times. Anecdotally, this concern has been realized for some companies such as Floor & Decor, a specialty retailer focused on the flooring market, which has lengthened lead times for deliveries that need to be rerouted around the Cape of Good Hope, although the company doesn't expect any material impacts on its business. Other retailers are less exposed to delays/disruptions because their products aren't seasonal, but retailers with substantial seasonality could be affected. During the pandemic, Dick's Sporting Goods received spring sportswear from Nike only in July due to shipping delays, causing the product to be completely discounted, which led to a revenue miss for Dick's.
- **While companies haven't been as worried about higher freight rates, their ability to pass on costs is limited.** When we first surveyed companies, they expressed that a return to pandemic-era cost levels was unlikely given that nobody is chasing demand this time around. But that was prior to the recent increase in freight rates. And if these increases persist into March/April/May—when most annual freight contracts get renegotiated—contract rates, which are based on spot rates, could increase. Companies, with the exception of highly-defensive retailers, don't currently have much ability to pass through these higher costs to their end-consumers; if anything, many retailers like Walmart have expressed a desire to *lower* prices after the recent period of inflation. So, margins—which had somewhat improved before the recent disruptions as freight costs had declined compared to last spring—could take a hit.

Higher shipping costs, modest inflation

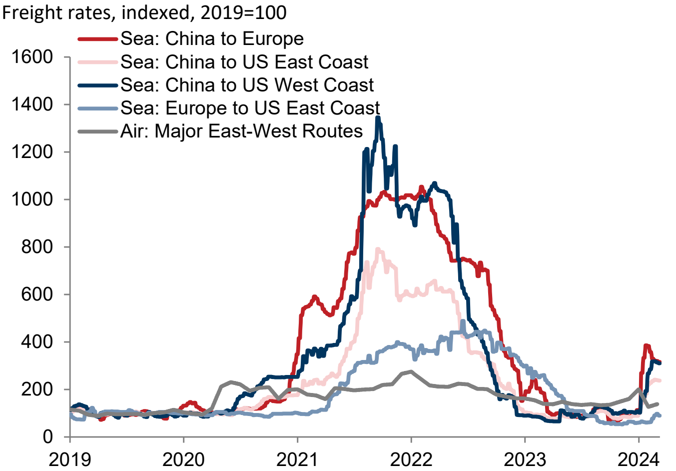
Joseph Briggs finds only modest impacts on global inflation from higher shipping costs

The re-routing of ships around Africa's Cape of Good Hope amid the ongoing Red Sea disruptions, as well as slow traffic through the Panama Canal due to drought-related low water levels, have led seafreight rates from China and other East Asian economies to surge by as much as 275% since the beginning of December. And while other shipping routes have experienced less extreme cost increases so far, the supply-demand imbalance for ships amid longer routes and slower maritime traffic has begun to increase costs elsewhere, with spot shipping rates from China to the US rising by over 175% since the beginning of December.

Some investors worry that these rising shipping costs could drive a sizable resurgence in global goods inflation, especially since the acute inflation pressures from post-pandemic supply disruptions remain relatively fresh on investors' minds. However, assuming that shipping costs will begin to fade from their January and February peaks as our transport analysts expect (see pgs. 14-15), we think such concerns are likely overblown and that upside inflation risk is relatively limited.

Shipping costs have risen sharply, especially from China to Europe

Freight rates, indexed, 2019=100



Source: Bloomberg, Freightos, Goldman Sachs GIR.

Limited inflation risk

Two factors limit the inflation risk from these shipping disruptions, in our view.

First, in contrast to the shipping cost surges in 2021 and 2022, the current increase in shipping costs is occurring against a more benign macro backdrop. Global production capacity, which declined significantly during the pandemic as governments in China and Southeast Asia shut down factories in response to public health concerns, is less likely to be significantly affected by shipping delays. At the same time, goods demand is no longer receiving a boost from fiscal transfers as it did in the aftermath of the pandemic. As a result, much less scope for stockouts and severe supply-demand imbalances to amplify cost pressures exists today than in 2021/22.

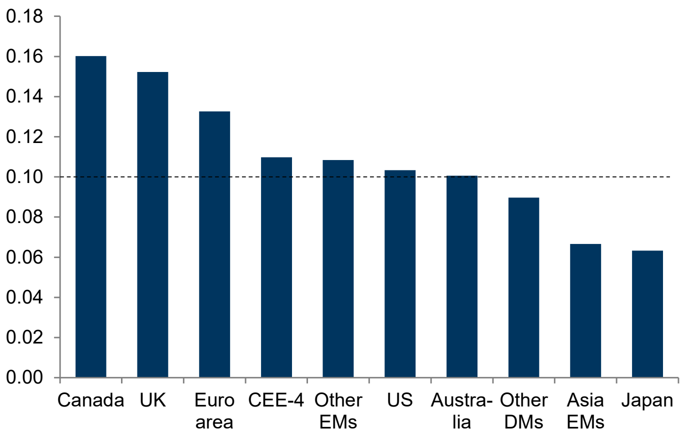
Second, total shipping costs represent only a small share of the final price of a good. We estimate that total international transport costs make up less than 1.5% of the price of final consumption goods[1] on average, with sea transport costs accounting for an even smaller share of the price of a final good—around 0.7%—given that only roughly half of all goods by value are shipped via sea.

A modest boost to global core inflation, in any scenario

Assuming that roughly half of the cost increase is passed on to consumers, a 100% increase in sea transport costs would raise core goods price levels by less than 0.4pp. And with core goods accounting for roughly a third of total global core spending, these estimates suggest that a 100% increase in global seafreight costs would raise global core price levels by around 0.1%. Combining our estimated rules of thumb with the observed shipping cost increases since December suggests that the current cost increases could raise global core prices by 10bp, with larger effects in Canada and Europe. We therefore estimate that higher shipping costs will add a modest 0.1pp to global core inflation through end-2024.

Increases in global seafreight rates should raise core prices by only around 10bp, with larger effects in Canada and Europe

Effect of the increase in seafreight rates since Dec 2023 on the core price level, %



Note: We assume a 50% pass-through. The horizontal line indicates the global GDP-weighted average.
Source: Bloomberg, Haver Analytics, Goldman Sachs GIR.

While uncertainty around this estimate exists, in most realistic scenarios the impact on inflation looks relatively benign. Indeed, even in the very unlikely upside scenario in which cost increases are fully passed through to consumers, we estimate that the boost to year-over-year inflation would be just over 0.2pp, and less than half of that if shipping disruptions resolve and cost increases reverse within the next couple of months. We therefore expect only modest upside inflation pressure from Red Sea shipping disruptions barring more significant transport disruptions and cost increases going forward, or a much larger rise in commodity prices than our commodity strategists currently expect.

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[1] Using information from the World Input-Output Tables.

Q&A: shipping (and other) oil shock risks

Daan Struyven answers key questions about the impacts and risks to oil markets from the recent Middle East shipping disruptions and more fraught geopolitical environment

The recent maritime disruptions amid the ongoing war in the Middle East and the more fraught geopolitical backdrop have raised concerns about a spike in energy prices and associated inflationary impacts. Here, we address key questions about the implications of the recent disruptions, as well as the more challenging geopolitical environment, for energy markets.

Q: How significant are the current Middle East shipping disruptions to energy flows?

A: Approximately 2mb/d of oil flows are currently being redirected away from the Red Sea, representing nearly 30% of total oil flows through this waterway. While significant, less than 7%—around 7mb/d—of global oil production flows through the Red Sea, compared to nearly 20%—around 17mb/d—through the Strait of Hormuz, which has so far seen no disruption in flows.

Q: How have energy markets responded to the disruptions?

A: The Red Sea disruptions are having only modest effects on crude oil prices and limited impacts on LNG markets, but large effects on oil freight rates (see pg. 20) and sizable effects on refined oil products in Europe.

We estimate that the current Red Sea disruptions are boosting Brent oil prices by only $2/bbl as increased oil-on-water times and higher marine fuel demand have led to somewhat faster-than-expected declines in oil stocks on land. As a result, we recently nudged up our summer 2024 Brent peak forecast to $87/bbl (vs. $85/bbl prior). The impact of the disruptions on LNG markets has been even more limited as higher US LNG volumes heading to Europe (vs. heading to Asia) have helped offset the decline in Qatari volumes into Europe.

In contrast, global freight rates for clean tankers transporting refined products have risen by around 20% since the disruptions began. This, together with higher crude prices, lower import volumes from Russia following Ukrainian drone strikes on Russian refiners, and structural tightness in the refining industry, has led to a sharp rise in European refined product prices, with diesel prices up over 10% since mid-Dec.

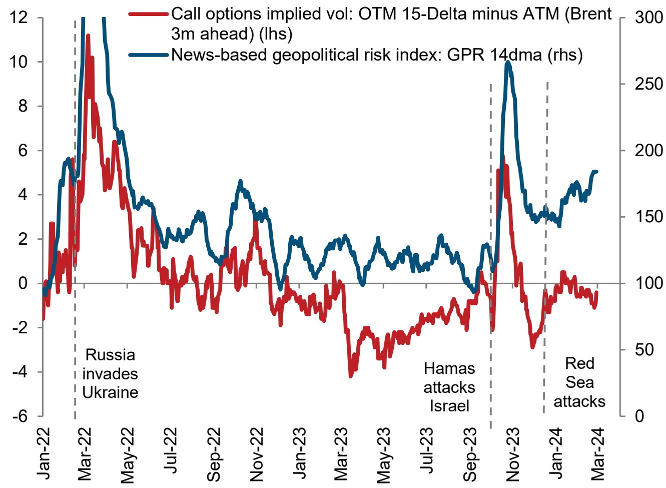
Q: Given the elevated risk of further shipping and other disruptions related to the ongoing war in the Middle East, why haven't oil prices moved more?

A: The relatively subdued reaction of oil prices and decline in implied oil price vol to pre-Covid lows owes to three factors.

First, the geopolitical risk premium—the compensation investors demand for the risk that geopolitical shocks reduce oil supply—remains modest, with the cost of insuring against price spikes using options low despite the Red Sea turbulence, primarily due to the fact that crude production remains unaffected by the war in Gaza.

The cost of insuring against oil price spikes remains modest

% (lhs), index with 1985:2019=100 (rhs)

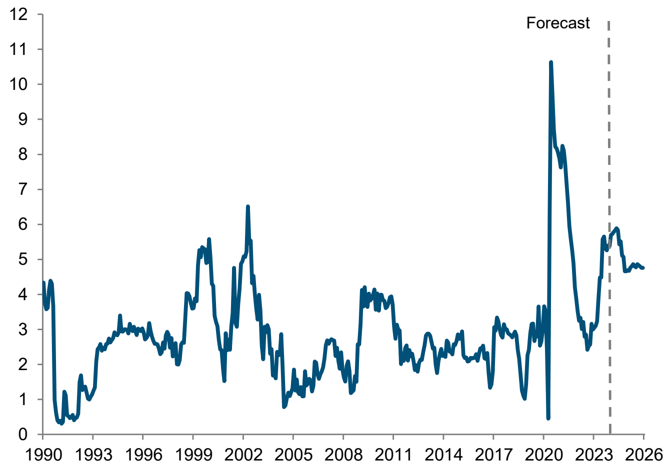


Source: Federal Reserve Board, ICE, Goldman Sachs GIR.

Second and relatedly, OPEC has the ability and incentive to keep prices relatively rangebound, consistent with our expectation of Brent prices remaining in the $70-90/bbl range in 2024-2025. On the one hand, elevated levels of spare production capacity would allow OPEC+ to offset production disruptions in most geopolitical scenarios, which limits upside price risk. And, on the other hand, the OPEC put—the flexible supply strategy employed by Saudi Arabia and its partners to prevent significant inventory builds—together with strategic China and US restocking and only modest recession risk, limit the downside risk to prices.

Elevated levels of OPEC+ spare capacity limits upside oil price risk

OPEC ex. Iran spare capacity, mb/d



Source: Platts, IEA, OPEC, EIA, Goldman Sachs GIR.

Third, we expect robust non-OPEC ex. Russia supply growth of 1.3mb/d in 2024, primarily coming from the US and Canada, which should nearly keep pace with the solid 1.5mb/d global demand growth we forecast this year.

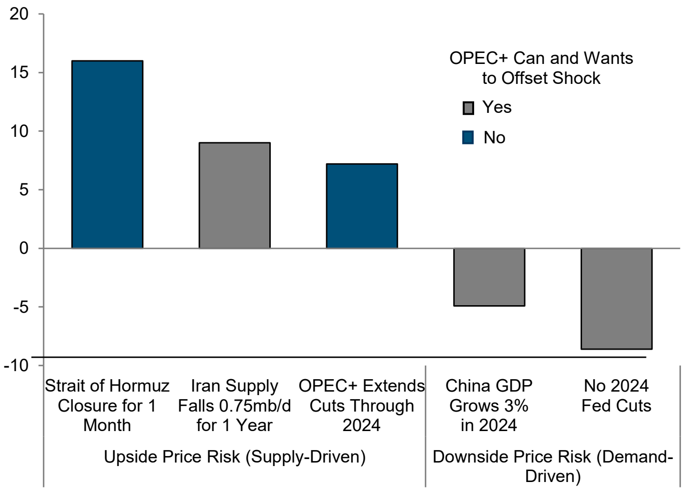
Q: What are the key risks to oil prices amid the more fraught geopolitical backdrop?

A: Geopolitical impediments to OPEC's ability/desire to deploy spare capacity pose the sharpest upside risk to oil prices, in our view. While highly unlikely, we estimate that an interruption of oil flows through the Strait of Hormuz would lead oil prices to rise 20% in the first month and eventually double if the interruption persisted for several months. The prospect of reduced Iranian oil supply due to increased Western scrutiny of Iranian oil exports also presents moderate upside price risk.

Beyond geopolitics, the potential for a longer extension of OPEC+ cuts through 2024 (vs. through 2Q24 in our mainline forecast), poses some upside price risk. And, on the downside, we estimate that weaker but non-recessionary demand scenarios, including 3% China 2024 GDP growth (vs. 4.8% in our current base case) or a more hawkish Fed (no cuts in 2024 vs. our expectation of four cuts), pose modest downside risk to crude prices. Because OPEC+ could offset several of these downside shocks with supply cuts, a sustained drop in prices below $70/bbl would require both much weaker demand and a shift in Saudi strategy, in our view.

A Strait of Hormuz closure presents the biggest upside oil price risk

Peak impact on Brent oil price, $bbl



Source: Goldman Sachs GIR.

Q: The oil embargo of the 1970s caused a dramatic spike in oil prices and a recession. Russia cutting Europe off from piped natural gas in 2022 caused a dramatic spike in European natural gas prices and a GDP stagnation in Europe. How likely are similar embargos today?

A: Despite the current geopolitical turbulence, an oil embargo that causes a dramatic spike in oil prices doesn't appear as likely today as it did in the 1960s/70s, primarily because oil-producing countries have learned that embargos are not very effective in the short run and that extreme price spikes tend to destroy oil demand in the long run.

While OPEC production cuts had major and persistent effects on global oil prices in the 1970s, the oil embargos of the 60s/70s themselves had more limited price impacts because fungible oil supply tends to reach the global market when the demand exists. In 1967, the flow of oil around the world was entirely reorganized in the wake of Saudi Arabia, Kuwait, Iraq, Libya, and Algeria banning oil shipments to the US, UK, and Western Germany in response to the Six-Day War, with oil from non-Arab countries diverted to the embargoed countries in Europe. Similarly, the current EU embargo and the G7 price cap on Russian crude in response to Russia's invasion of Ukraine are having no significant effect on global oil benchmark prices as Russian oil is being largely redirected to India and China. Even the effectiveness of the most prominent oil embargo in 1973-1974 is questionable because the embargo ended after five months without any major change in policies around the Arab–Israeli conflict among the countries the embargo targeted.

The second lesson from the energy crises of the 1970s and 2022 is that extreme price spikes are not in the long-run interest of OPEC economies, as they stimulate supply by competitors and eventually destroy demand. Higher oil prices boosted non-OPEC oil production in the late 1970s, including from Mexico, Alaska, and the North Sea. At the same time, oil demand fell as power and heating demand gradually shifted to other energy sources such as natural gas, and transportation fuel efficiency rose owing to new fuel standards, leading the oil intensity of global GDP (volume of oil consumed per unit of GDP) to peak in 1973. Similarly, higher energy prices in 2022-2023 boosted production from the US and sanctioned economies such as Iran while spurring a return to growth in offshore capex. Higher oil and natural gas prices also contributed to the jump in investment in clean energy and neighborhood electric vehicles (NEVs) since 2022.

Q: Is the US becoming the top global oil producer another reason to worry less about potential lost energy flows from the Middle East or Russia owing to geopolitical turbulence?

A: Total oil liquids production in the US is now indeed almost as large as Saudi Arabian and Russian production combined. And, directionally, the rise of short-cycle US shale, the creation of Strategic Petroleum Reserves (SPR) after the 1970s oil embargo, and the reduction in the oil intensity of GDP all dampen the macro impacts from any potential oil supply shock.

However, even after accounting for these structural changes in the oil market, we find that oil prices could still eventually double in the tail scenario of a prolonged closure of the Strait of Hormuz. We estimate that the US supply response to higher prices caused by any geopolitical supply shock would offset only roughly 20-25% of the initial volume shock, and with a delay of around two quarters. The recent trend of consolidation in the US shale industry would also limit the US supply response—as large public firms are less price elastic than small firms—as would increased capex discipline following poor US oil producer returns in 2015-2020. And, while the US SPR has now started to slowly refill, it remains 300 million barrels—nearly 50%—smaller than three years ago.

So, while mega oil shocks now appear less likely and less damaging than in the 1970s, the tail risk of very large oil price spikes remains. After all, while oil embargos have historically not been in the best economic interest of oil-producing countries, geopolitical or other considerations may lead countries to enact them anyway. And oil prices could spike again if OPEC were physically unable or unwilling to deploy its currently ample spare capacity. As such, we still see significant value in tail hedges against geopolitically-driven oil price jumps.

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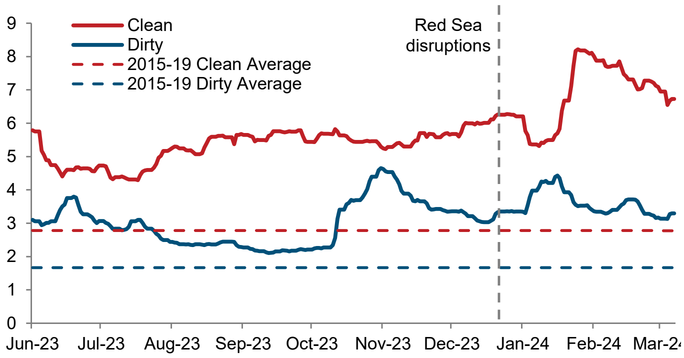
Oil tankers' structural bull market

Callum Bruce argues that the recent Red Sea shipping disruptions have merely reinforced what was already, and will likely remain, a structural bull market for oil tankers

The Red Sea shipping disruptions have triggered renewed price spikes in freight markets as vessels increasingly avoid the Red Sea and undertake much longer journeys around Africa's Cape of Good Hope, with oil tanker freight rates rising more than 25% initially. Clean tankers transporting refined products like gasoline and diesel northbound from the Middle East to Europe have been even more severely impacted, with prices rising by almost 50% at their peak. Yet tanker freight rates were already high before the recent disruptions owing to several structural tailwinds in the industry, and will likely remain so long after the disruptions resolve as these tailwinds persist. As such, the recent geopolitical disruptions are merely reinforcing tankers' structural bull market.

Oil tanker freight rates initially jumped on the Red Sea disruptions

Oil tanker freight rates, $/bbl



Source: Refinitiv Eikon, Goldman Sachs GIR.

Geopolitics meets an inelastic market...

The recent disruptions have roiled seaborne transportation markets more than oil markets themselves, where prices have remained relatively subdued. This is because tanker demand is a function of the quantity carried and distance transported, meaning that the redirection of tankers around the Cape of Good Hope—which takes around 15 days longer on average—has significantly increased the demand for transportation. The seaborne transportation market is also highly inelastic, regardless of the commodity on board, with both demand and supply unable to respond much to prices. On the demand side, higher freight rates are an immaterial concern for end-consumers given that seafreight accounts for only a very small share of the price of final consumption goods (see pg. 17), and, on the supply side, building new ships takes years. This inelasticity, in turn, makes the seaborne transportation market prone to significant price spikes.

...that was already structurally tight

The tanker market was tight even before the Red Sea disruptions—with freight rates more than double their 2015-2019 average—due to three structural tailwinds.

First, a supply-demand mismatch. Between 2017 and 2023, global oil demand grew almost 3 mb/d, largely due to higher demand from Asia while demand from the Western hemisphere declined. Meanwhile, global oil supply grew 4.5 mb/d as significant OPEC cuts only partially offset 8 mb/d of liquid fuel growth from the Americas. This regional oil supply-demand mismatch increased demand for oil transport to move barrels from the Western hemisphere to Asia. We estimate that these underlying trends increased crude tanker demand by roughly 150 million barrels over this period, equivalent to 75 Very Large Crude Carriers (VLCCs), the largest class of tankers.

Second, previous geopolitical conflicts. The EU/Western embargo on Russian oil exports, implemented in late 2022 following Russia's invasion of Ukraine, has forced a rerouting of Russian oil cargoes to Asia—primarily China and India—with Europe backfilling these lost volumes with Middle Eastern crude. We estimate this rerouting has increased tanker demand by approximately 100 million barrels since the embargo was implemented.

Third, climate change. Higher temperatures may mean higher sea levels, but also more extreme weather events, including droughts. Low water levels at Gatun Lake have inhibited tanker flows through the Panama Canal. Although the impacts on crude and the main refined product markets are small, this disruption has contributed to a roughly 15% increase in propane tanker demand, which sent liquified petroleum gas (LPG) carrier ship rates and Asia-delivered propane prices soaring late last year.

As such, the tanker market was already reflecting a constrained environment, and was poorly positioned for the current Red Sea disruptions. Oil flows through the Red Sea have now fallen nearly 30%, and we estimate that a complete disruption of flows, with all cargoes diverting around the Cape of Good Hope, would have a similar impact on tanker demand as the Russian embargo, which would likely cause tanker rates to rise by roughly 30%/60% for dirty/clean tankers.

A structural bull market, continued

Even if/when the current shipping disruptions abate, we expect these structural tailwinds to continue providing wind to oil tankers' sails, supporting elevated freight rates. Ongoing geopolitical conflicts and climate change are likely to further increase tanker demand, while a widening oil supply-demand mismatch will require an estimated additional 50 million barrels of tanker capacity by 2025. However, our transportation analysts estimate that net fleet capacity growth for tankers in the coming years will be essentially zero, a sharp contrast to the containership space, where our analysts expect high levels of new vessel deliveries to lead the recent increases in container rates to gradually fade (see pgs. 14-15). While high prices usually tend to cure high prices by incentivizing investment, tankers are long-cycle assets in an industry with a highly uncertain future, which precludes such a natural rebalancing of the market. This dynamic—essentially, a catch-22, similar to what the refining industry is facing—will likely cement a structural bull market in tankers into at least the medium term.

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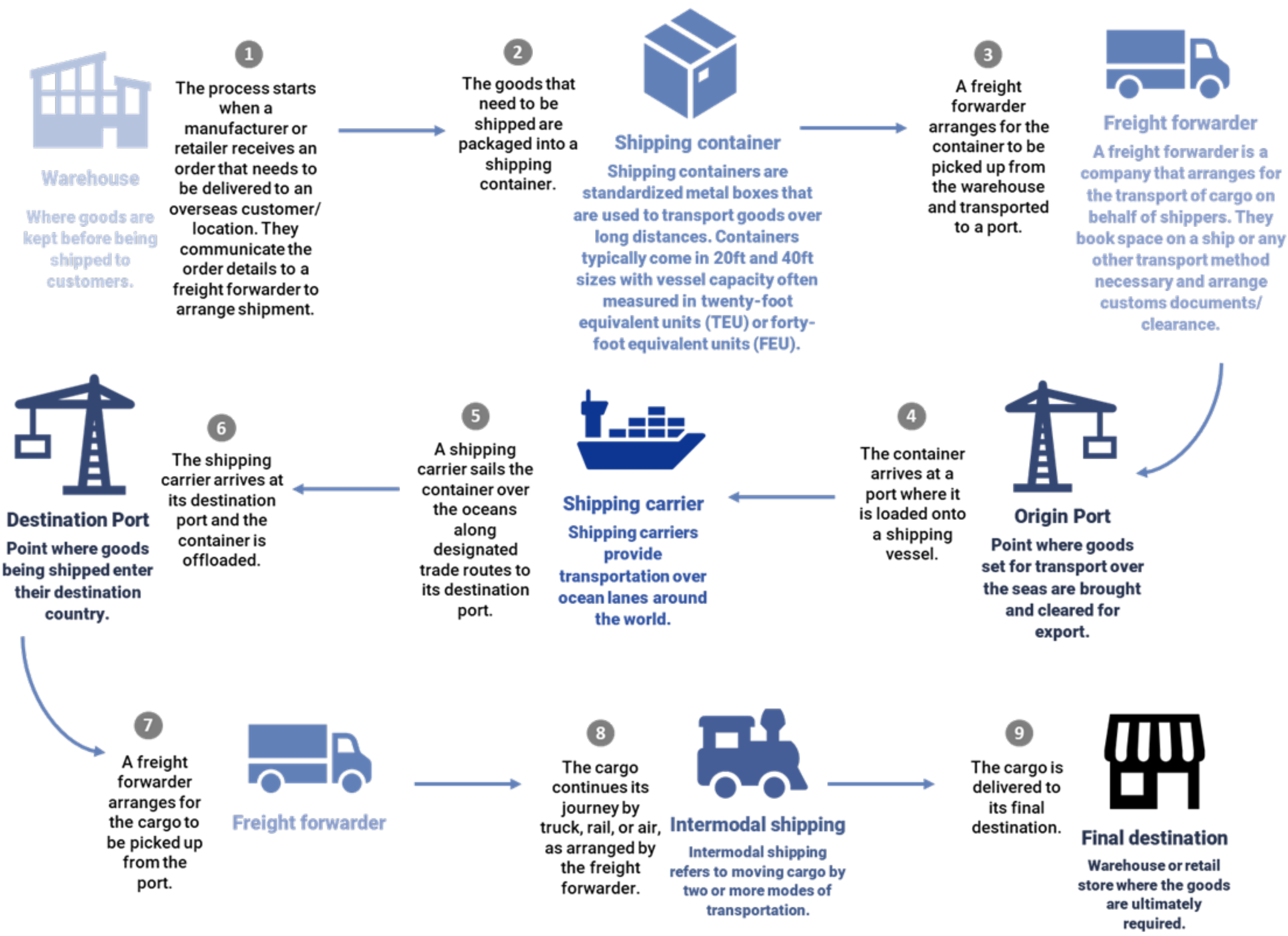
An overview of maritime supply chains

Maritime supply chains are made up of an intricate network of systems involving logistics companies, freight forwarders, shipping carriers, port operators, and land-based transport systems.

A **logistics company** helps plan and control the movement and storage of goods across an entire supply chain. Freight forwarding is a specialized service within logistics that focuses specifically on coordinating/arranging the transport of goods, with **freight forwarders** acting as intermediaries between shippers (the manufacturer or retailer who needs the goods to be transported) and transportation providers, including shipping carriers, airlines, and land-based transport providers.

What does a maritime supply chain look like? *(stylized example)*



Shipping by the numbers

90% Global trade by volume that flows over the ocean

~11bn Tons of goods transported by sea in 2022

>100k Number of merchant vessels in the world in 2023*

~$9.8bn Market size of global shipping container industry in 2022

>900 Number of active ports around the world as of 2023

*Vessels that are 100 gross tons and larger.
Source: Shippabo, ACS Logistics, Sinay, OECD, United Nations Conference on Trade and Development, Straits Research, Goldman Sachs GIR.

LatAm's supply chain opportunity

Alberto Ramos argues that Latin America, and especially Mexico, has a big opportunity to benefit from ongoing shifts in global supply chains, though any further moves toward nearshoring will likely be only gradual

The disruptions to global trade flows and logistics caused by the pandemic, Russia's invasion of Ukraine, the ongoing geostrategic competition between the West and China, and, more recently, Houthi attacks on cargo ships in the Red Sea have triggered a deep rethink around how global industrial supply and value-added chains are structured and linked, and where they should be located. While driving foreign direct investment (FDI), international goods and services flows, and the manufacturing, sourcing, and trade map that emerged following three decades of globalization was chiefly a relentless search for manufacturing efficiency, companies now seem willing to trade off some production efficiency for enhanced operational resilience and lower risk. And changes in national tax, subsidy, and regulatory policies are playing an increasing role in firm and industry-level location decisions.

This new global manufacturing dynamic creates an opportunity for Latin America, and particularly Mexico, to play a larger role in US supply chains. While FDI flows into manufacturing in Mexico have yet to rise significantly, early evidence of Mexico's growing role in supply chains is emerging, and we see further shifts toward nearshoring ahead, though this will likely be a gradual shift.

A prime opportunity for Mexico…

Latin America can potentially benefit from the slowly emerging new manufacturing reality given its relatively young population, large endowments of natural resources, and mostly friendly governments that generally share Western liberal values. Mexico, with its competitive unit labor costs, high manufacturing connectivity/density, close proximity to the US, and preferential access to the US market and investment safeguards enshrined in the USMCA Agreement, looks particularly well-positioned to benefit.

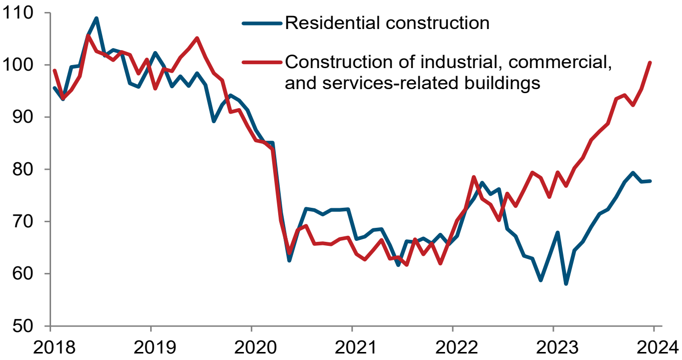
Mexico and China have similar export profiles, and for years have been competing for US manufacturing market share. With the shifting/souring of the US-China relationship likely structural and the policy and business environment in China now riskier and more uncertain, Mexico looks poised to pull ahead. Beyond being a competitive exporting platform, particularly for labor-intensive intermediate technologies, Mexico is also the world's 12th largest economy (in PPP GDP terms) with a sizable population of 130mn people, whose average age is under 30.

…that isn't being fully leveraged (yet)

However, Mexico's nationalist policy mix, security issues and violence, and water and energy supply issues (green energy in particular) are preventing it from taking full advantage of the favorable opportunity these factors provide. Indeed, Mexico has yet to experience any significant rise in FDI into manufacturing, though non-residential investment, such as the construction of industrial parks, has surged and asking rents and occupancy rates in industrial real estate have risen, which may be a prelude to stronger FDI inflows. Moreover, according to the most recent American Chamber of Commerce in China survey, 23% of member (US) firms are now either considering or have already started the process of relocating manufacturing or sourcing outside of China, with approximately 3% considering relocating to Latin America, and 2.25% to Mexico. Given the value of manufacturing exports from China to the US today, we estimate that, all else equal, such shifts could increase Latin America's exports to the US by around $12bn, led by a $9bn boost from Mexico (equivalent to ~0.5% of Mexico's GDP and 1.5% of total exports), with larger impacts possible.

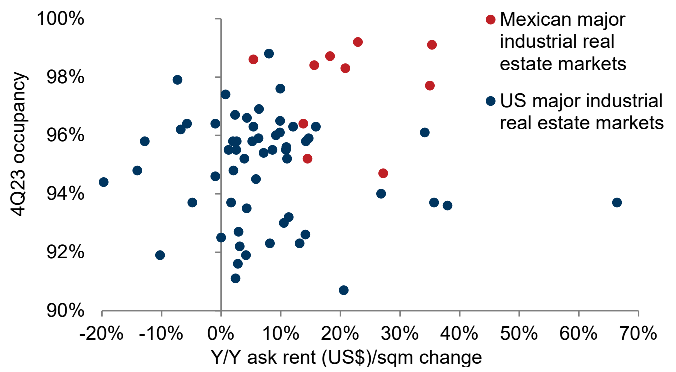
A surge in non-residential investment...

Mexico: residential vs. non-residential construction, index, 2018=100, SA



Note: Deflated by residential and non-residential building construction PPIs.
Source: INEGI, Goldman Sachs GIR.

...and higher industrial rents and occupancy rates could presage stronger FDI flows into Mexico ahead



Source: CBRE, Goldman Sachs GIR.

A gradual change, not a big bang

While the global manufacturing landscape and trade dynamics are shifting in favor of Latin America becoming a larger player in US supply chains, sunk costs and political and other considerations may make relocating factories and assembly lines costly over the short term. And building or adding significant new industrial capacity and achieving a critical mass of manufacturing networks/density in a new location is complex and time-consuming. As such, a big bang for near/friend/reshoring into Latin America is likely not on the horizon. Rather, this shift will likely take place only gradually, requiring a couple of decades to fully develop and crystallize. But the potential opportunity is clear and large, if not immediate.

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Gauging nearshoring impacts

Caesar Maasry assesses the potential impacts of near/friend/offshoring, which could benefit EMs, and Mexico in particular

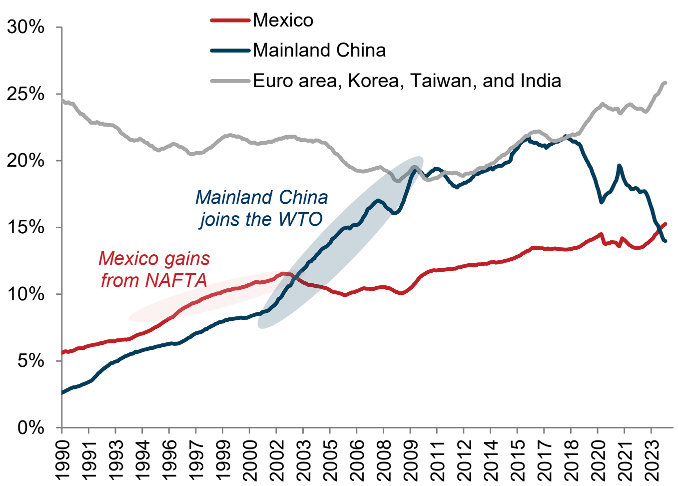
The disruptions to trade from pandemic-related shocks and escalating geopolitical tensions have sparked a rethink of global trade relationships, with countries increasingly focusing on "nearshoring" and "friendshoring" as a means to reduce trade and supply chain risk. In such a world, several Emerging Market (EM) economies have emerged as potential beneficiaries, although Mexico stands out given its geographical proximity, close political ties, and formal trade agreement with the US (USMCA) (see pg. 22). That said, the story of near/friend/off-shoring is not new; even in Mexico's case, the country already experienced a "nearshoring" phenomenon in 1990s after the codification of NAFTA. Below, we identify six examples of past near/friend/ offshoring to assess the potential economic and market implications of greater trade integration, finding that tighter trade relationships boost economic growth and markets in aggregate.

Not a new phenomenon

While focus on near/friend/offshoring has increased recently, it is not a new phenomenon. Indeed, several historical instances of friendshoring, and in particular, greater integration of trade flows with the US, have occurred. We identify six historical examples of such a trade "ramp up" with the US, defined by 5-year periods in which a trade partner's share of US imports increased by 0.5pp or more—Mexico in the late 1990s after the creation of NAFTA, China in the early 2000s after joining the WTO, India from 2008-13 amid the post-Global Financial Crisis recovery, Korea from 2012-17 on the back of KORUS FTA, and Europe from 2014-19 during the Euro crisis recovery.

Trade shares of US imports have varied over the years

Share of US imports, %



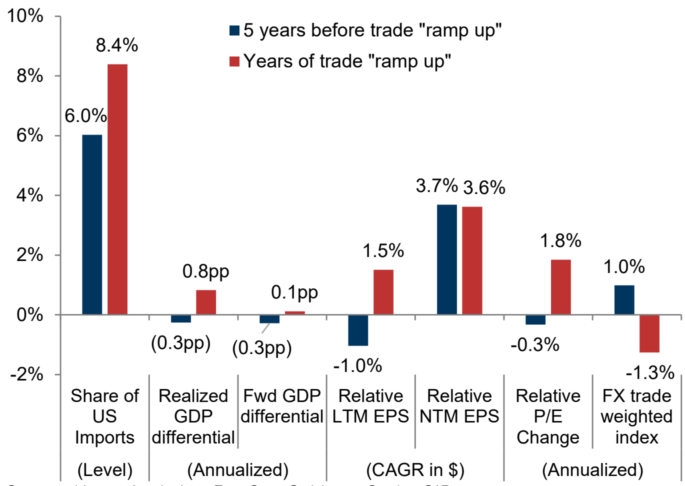
Note: Data as of October 2023.
Source: Haver Analytics, Goldman Sachs GIR.

History suggests broad macro and market benefits…

These examples suggest striking benefits of a trade "ramp up" with the US. Indeed, during "ramp up" years, economies experienced significant GDP growth outperformance relative to EMs in aggregate (+1.1pp), better realized annual EPS growth (+1.5pp vs. aggregate EM), and rising equity valuations (+1.8pp per year). And the equity markets of these economies outperformed the EM benchmark by an average of 5.3pp per year during "ramp up" years. This pattern is already playing out in Mexico amid recent US friendshoring, with MSCI Mexico outperforming MSCI EM and MSCI EM ex-China by 6.0pp and 2.9pp, respectively, since January 2018 when Mexico's US trade share began growing. The implications were more mixed on the currency front, with currencies depreciating on a trade-weighted basis by 0.4% on average, although this result is heavily skewed by early examples (the Tequila crisis in the 1990s and managed currency regimes in China in the early 2000s), with more recent examples resulting in FX appreciation.

Trade "ramp up" benefits macro and market indicators

Average performance of Mexico, Mainland China, India, Korea, Europe ex-UK, and Taiwan compared to aggregate EM performance, % difference



Source: Haver Analytics, FactSet, Goldman Sachs GIR.

…but specific market implications are more mixed

While history suggests a growing trade relationship with the US is beneficial from an aggregate macro and market perspective, the specific micro benefits vary from case to case. Indeed, in Korea and Taiwan, the Info Tech sector performed the strongest during the trade "ramp up" years, while in Mainland China the commodity sector was the strongest performer, although domestic policy rather than US trade likely drove that performance. However, a trade-led boost to broad income and growth may have allowed Mainland China to utilize fiscal and credit stimulus to create commodity demand, which suggests that offshoring/friendshoring may have indirect benefits.

A growth improvement should benefit Mexico Banks, Real Estate, and Materials

Using these historical examples as a guide, we expect Mexico's economy and markets to broadly benefit from further US friendshoring/trade integration. Within equity markets, while the historical record is less clear, the potential for a trade-led improvement in GDP growth suggests Banks, Real Estate, and Materials—the sectors within the Mexican equity market most levered to growth—should outperform, and we recommend investors focus on these areas to position for gains from near/ friend/offshoring rather than stocks with direct US exposure.

Caesar Maasry, Head of EM Cross-Asset Strategy

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Summary of our key forecasts

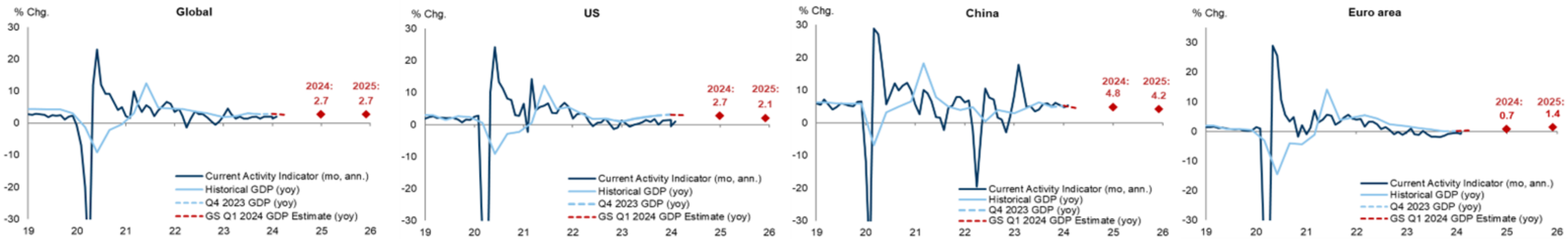
GS GIR: Macro at a glance

Watching

- **Globally,** we expect real GDP growth of 2.7% yoy in 2024, reflecting tailwinds from strong real household income growth, a gradual recovery in manufacturing activity, and a start to rate cuts as inflation cools. We expect global core inflation to fall back to around 2.25% by the end of 2024 as core goods inflation continues to decline, shelter inflation falls further, and both services inflation and wage growth continue to slow in response to the improved supply-demand balance across the global economy.
- **In the US,** we expect well-above-consensus real GDP growth of 2.2% in 2024 on a Q4/Q4 basis, reflecting easing financial conditions amid a start to Fed rate cuts and strong real disposable income growth. We continue to see a below-consensus 15% probability of entering a recession over the next 12 months. We expect core PCE inflation to decline to 2.4% by December 2024, reflecting further rebalancing in the auto, housing rental, and labor markets. We expect the unemployment rate to decline to 3.6% in 2024 and remain there for the next few years.
- **We believe the Fed's** hiking cycle is complete and that the Fed will remain on hold at the current Fed funds rate range of 5.25-5.5% until the first 25bp cut in June, after which we expect 25bp cuts in July, September, and December, followed by four more cuts in 2025 to a terminal rate range of 3.25-3.5%. On balance sheet policy, we expect the Fed to announce that it will start tapering the pace of balance sheet runoff in May and expect runoff to end in 1Q25.
- **In the Euro area,** we expect real GDP growth to increase to 0.7% yoy in 2024, reflecting a pickup in real disposable income and a fading credit drag as the ECB turns toward rate cuts, which should more than offset the building headwind from fiscal policy. We expect core inflation to slow further to 2.4% yoy by December 2024, reflecting indirect pass-through from lower energy prices, continued declines in services inflation, and normalizing wage growth.
- **We believe the ECB's** hiking cycle is complete and that the ECB will remain on hold at 4.00% until the first rate cut in June, after which we expect rate cuts to proceed at a 25bp/meeting pace until the policy rate reaches 2.25% for a total of five cuts in 2024 and two cuts in 2025, although the pace of cuts remains uncertain.
- **In China,** we expect real GDP growth to slow to 4.8% yoy in 2024 as China continues to face several growth headwinds, including a prolonged property downturn, although we expect a material offset from ongoing policy easing and pick up in investment growth. We expect inflation to remain low in 2024, with continued PPI deflation and moderate CPI reflation, amid the ongoing food price deflation, property downturn, and manufacturing overcapacity. Over the longer term, we maintain our cautious view on China's growth outlook given deteriorating demographics, property and local government deleveraging, and global supply chain de-risking.
- **WATCH US ELECTION AND WAR IN THE MIDDLE EAST.** In the US, with a Trump-Biden rematch looking all but certain, attention has turned to the general election, which could have important policy and market implications, especially if it brings the possibility of fresh unfunded fiscal expansion. While the ongoing Red Sea shipping disruptions amid the escalating war in the Middle East have had only a modest impact on energy prices, a potential closure of the Strait of Hormuz would have much more significant energy price effects that would likely lower global growth.

Goldman Sachs Global Investment Research.

Growth



Source: Haver Analytics and Goldman Sachs Global Investment Research.
Note: GS CAI is a measure of current growth. For more information on the methodology of the CAI please see "Improving Our Within-Month CAI Forecasts," Global Economics Comment, Mar. 06, 2023.

Forecasts

Economics

GDP growth (%)	2024 GS (Q4/Q4)	2024 Cons. (Q4/Q4)	2024 GS (CY)	2024 Cons. (CY)	2025 GS (CY)	2025 Cons. (CY)
Global	2.7	–	2.7	2.4	2.7	2.6
US	2.2	1.3	2.7	2.1	2.1	1.7
China	4.7	4.7	4.8	4.6	4.2	4.3
Euro area	1.3	1.0	0.7	0.5	1.4	1.4

Policy rates (%)	2024 GS	2024 Mkt.	2025 GS	2025 Mkt.
US	4.38	4.42	3.38	3.50
Euro area	2.75	2.99	2.25	2.24
China	1.70	1.74	1.70	–
Japan	0.10	0.27	0.25	0.42

Markets

Interest rates 10Yr (%)	Last	E2024	E2025
US	4.10	4.00	4.00
Germany	2.28	2.00	2.00
Japan	0.76	0.90	0.90
UK	3.91	3.75	3.75

FX	Last	3m	12m
EUR/$	1.09	1.08	1.12
GBP/$	1.28	1.28	1.35
$/JPY	147	145	140
$/CNY	7.16	7.15	7.05

Commodities	Last	3m	12m
Crude Oil, Brent ($/bbl)	82	85	80
Nat Gas, NYMEX ($/mmBtu)	1.76	2.00	3.25
Nat Gas, TTF (EUR/MWh)	24.97	29	31
Copper ($/mt)	8,560	8,400	10,000
Gold ($/troy oz)	2,180	2,065	2,175

Credit (bp)		Last	2Q24	4Q24
USD	IG	95	97	95
	HY	314	342	325
EUR	IG	131	145	135
	HY	345	400	390

Equities

S&P 500	E2024 GS	E2024 Cons.	E2025 GS	E2025 Cons.
Price	5,200	–	–	–
EPS	$241	$243	$256	$276
Growth	8%	9%	6%	13%

Returns (%)	12m	YTD	E2024 P/E
S&P 500	2	7	21.4x
MXAPJ	4	1	13.6x
Topix	9	13	16.2x
STOXX 600	2	5	13.7x

Consumer	2024 CPI (%, yoy)	2024 Unemp. Rate	2025 CPI (%, yoy)	2025 Unemp. Rate	Wage Tracker 2024 (%) Q1	Q2	Q3	Q4
US	3.0	3.6	2.5	3.6	4.6	–	–	–
Euro area	2.5	6.7	2.1	6.7	–	–	–	–
China	0.4	–	1.5	–	–	–	–	–

Source: Bloomberg, Goldman Sachs Global Investment Research. For important disclosures, see the Disclosure Appendix or go to www.gs.com/research/hedge.html.

Market pricing as March 11, 2024

Glossary of GS proprietary indices

Current Activity Indicator (CAI)

GS CAIs measure the growth signal in a broad range of weekly and monthly indicators, offering an alternative to Gross Domestic Product (GDP). GDP is an imperfect guide to current activity: In most countries, it is only available quarterly and is released with a substantial delay, and its initial estimates are often heavily revised. GDP also ignores important measures of real activity, such as employment and the purchasing managers' indexes (PMIs). All of these problems reduce the effectiveness of GDP for investment and policy decisions. Our CAIs aim to address GDP's shortcomings and provide a timelier read on the pace of growth.

For more, see our CAI page and Global Economics Analyst: Trackin' All Over the World – Our New Global CAI, 25 February 2017.

Dynamic Equilibrium Exchange Rates (DEER)

The GSDEER framework establishes an equilibrium (or "fair") value of the real exchange rate based on relative productivity and terms-of-trade differentials.

For more, see our GSDEER page, Global Economics Paper No. 227: Finding Fair Value in EM FX, 26 January 2016, and Global Markets Analyst: A Look at Valuation Across G10 FX, 29 June 2017.

Financial Conditions Index (FCI)

GS FCIs gauge the "looseness" or "tightness" of financial conditions across the world's major economies, incorporating variables that directly affect spending on domestically produced goods and services. FCIs can provide valuable information about the economic growth outlook and the direct and indirect effects of monetary policy on real economic activity.

FCIs for the G10 economies are calculated as a weighted average of a policy rate, a long-term risk-free bond yield, a corporate credit spread, an equity price variable, and a trade-weighted exchange rate; the Euro area FCI also includes a sovereign credit spread. The weights mirror the effects of the financial variables on real GDP growth in our models over a one-year horizon. FCIs for emerging markets are calculated as a weighted average of a short-term interest rate, a long-term swap rate, a CDS spread, an equity price variable, a trade-weighted exchange rate, and—in economies with large foreign-currency-denominated debt stocks—a debt-weighted exchange rate index.

For more, see our FCI page, Global Economics Analyst: Our New G10 Financial Conditions Indices, 20 April 2017, and Global Economics Analyst: Tracking EM Financial Conditions – Our New FCIs, 6 October 2017.

Goldman Sachs Analyst Index (GSAI)

The US GSAI is based on a monthly survey of GS equity analysts to obtain their assessments of business conditions in the industries they follow. The results provide timely "bottom-up" information about US economic activity to supplement and cross-check our analysis of "top-down" data. Based on analysts' responses, we create a diffusion index for economic activity comparable to the ISM's indexes for activity in the manufacturing and nonmanufacturing sectors.

Macro-Data Assessment Platform (MAP)

GS MAP scores facilitate rapid interpretation of new data releases for economic indicators worldwide. MAP summarizes the importance of a specific data release (i.e., its historical correlation with GDP) and the degree of surprise relative to the consensus forecast. The sign on the degree of surprise characterizes underperformance with a negative number and outperformance with a positive number. Each of these two components is ranked on a scale from 0 to 5, with the MAP score being the product of the two, i.e., from -25 to +25. For example, a MAP score of +20 (5;+4) would indicate that the data has a very high correlation to GDP (5) and that it came out well above consensus expectations (+4), for a total MAP value of +20.

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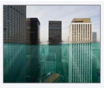

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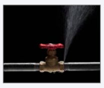

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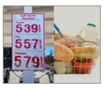

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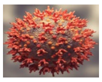

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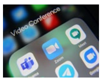

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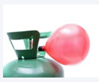

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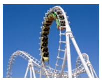

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Reg AC

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