



Trade Currents Navigator



April 2024

In Partnership With



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Introduction

Significant uncertainties are likely to continue affecting U.S. container trade volumes in 2024 and beyond, including U.S. economic developments and global conflicts. However, there may also be some return to pre-COVID long-term trends in 2024 and thereafter. The Navigator highlights these long-term trends for commodities that have represented large growth or declines in volumes and notes how projected volumes may be expected to return to long-term trends. The April 2024 edition of the Trade Currents Navigator examines U.S. containerized trade, focusing on:

- 1) Economic indicators that drive trade demand (from U.S. Bureau of Economic Analysis data)
- 2) The top commodities that have contributed to increases or decreases in containerized imports and exports (from U.S. Census Bureau data reported through February 2024)

The granular data used to measure real containerized trade volumes by commodity is in weight terms as reported by the Census Bureau. Commodities are defined by Harmonized System codes (see Appendix). Recent trade volumes are compared with historic trends and seasonal patterns to offer insights into how they may return to those trend levels and seasonality through 2024.

Trade Currents

Trade Currents was created to improve the understanding of U.S. international goods trade. The founding partners include internationally recognized economists and trade analysts Walter Kemmsies, Andrei Roudoi, and Scudder Smith. Trade Currents is a partner with AAPA in support of its Port Statistics Program to benefit ports, as well as the broader trade and logistics industry, research community, policymakers, and private institutions. Contact us at Walter.Kemmsies@tradecurrents.com, Andrei.Roudoi@tradecurrents.com, or Scudder.Smith@tradecurrents.com.

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Executive Summary

Macroeconomic Factors:

- Consumer spending has remained strong despite the Federal Reserve (Fed) hiking interest rates in 2023. Construction has not held up as well except for expenditures on new manufacturing facilities, which in the fourth quarter of 2023 were 80% higher than the quarterly average from 2019 to 2022.
- It is likely that real consumer spending on goods will gradually approach the long-term growth trend; non-residential investment will continue to rise; and, due to housing shortages, residential investment will start recovering, driving demand for imported housing fixtures, furniture, and other housing goods.

Imports:

- In 2023, containerized import volumes declined 11.9% from 2022, with furniture and wood accounting for almost a quarter of the total decline.
- Containerized import volumes trended upwards month-on-month between March and October 2023, but by February 2024 declined from the October peak mostly due to seasonal factors. However, on a year-over-year basis, volumes grew 5% in the first two months of 2024. Also, in February 2024, the seasonally adjusted volume was 5% above the long-term pre-COVID trend.
- Volumes of solar panels, the highest growth commodity in 2023, increased only slightly in the first two months of 2024. In contrast, containerized import growth was mainly driven by a rebound in commodities whose volumes declined in 2024 – plastics, furniture, and articles of iron and steel.
- In 2024, a robust 7% increase in volumes is expected. The rebound in the above-mentioned commodities as well as wood will likely continue with double-digit growth rates for 2024 as a whole.

Exports:

- In 2023, annual containerized export volumes fell 3.7%, continuing a negative trend that started in 2019. A broad-based decline in waste paper exports to almost all major destinations accounted for almost half of the total export contraction in 2023.
- Exports grew on a month-by-month basis beginning in July 2023, except in January 2024, when they fell mostly due to seasonal factors. In the first two months of 2024 exports rose 5.5% year-over-year.
- Plastics in primary forms remained the top containerized export growth commodity in the first two months of 2024. Exports of food industry residue and waste also continued strong expansion. At the same time, several commodities with sharp declines in 2023, such as kraft paper, strongly rebounded. Waste paper was again the main commodity contributing to declines in overall exports.
- In 2024 as a whole, exports are projected to increase by a moderate 3.4%. Plastics in primary forms, food residue, and kraft paper exports are expected to grow at double-digit rates. Waste paper exports will likely fall significantly, though not as much as in 2023.

Key Risk Factors:

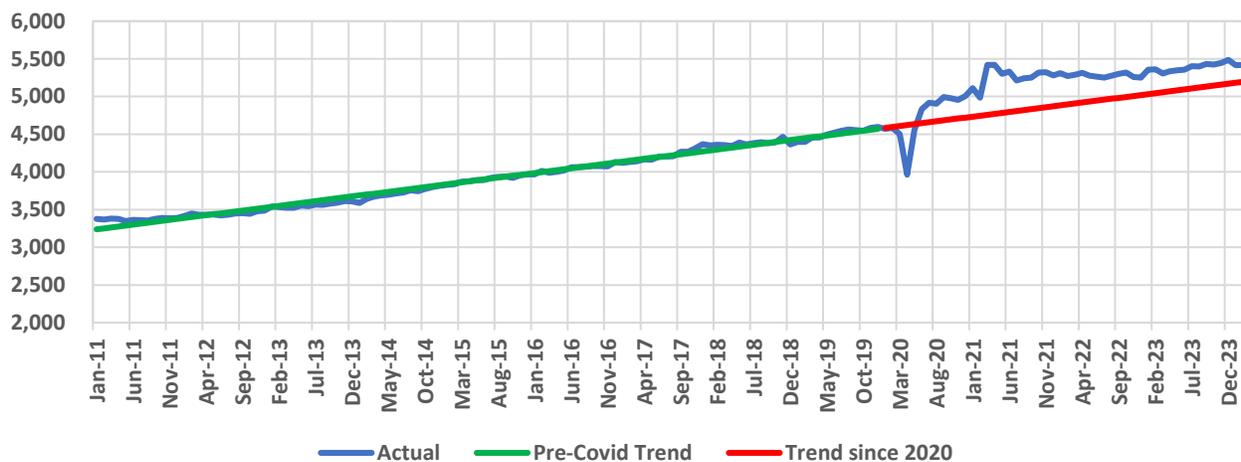
- A worsening geopolitical situation, such as a possible spread of the Middle East conflict, could lead to imported volumes below projections. Such declines could occur due to added costs resulting from trade route relocations or higher security and insurance costs, possibly leading to increased domestic sourcing.
- Monetary policy may be loosened in 2024. However, persisting inflation will likely slow the Fed's reduction of interest rates. On the other hand, quicker easing of inflation or a threat to economic growth coming, for example, from significantly aggravated geopolitical instability, could prompt the Fed to relax monetary policy more quickly.
- Volatility in containerization rates is also a risk to volume projections, both positive and negative, with exports more likely to switch between bulk and containerized shipment than imports.

Macroeconomic Developments

Consumer Spending:

- As a result of stimulus funding and changes in consumer spending patterns, real consumer spending on goods has been consistently above the long-term pre-COVID trend since June 2020. The gap above the trend decreased to 4% in February 2024 from 6% in December 2023.
- The U.S. labor market added 303 thousand jobs in March 2024, significantly exceeding economists' projections. Barring significant growth in unemployment, spending on goods is expected to gradually approach the long-term trend without a substantial decline.
- In addition, a revival in spending on services could boost imports of food and beverages for restaurant consumption, as well as goods related to travel.

Real Consumer Spending on Goods, billions of 2017 dollars, seasonally adjusted at annual rates



Sources: Bureau of Economic Analysis, Trade Currents estimates

Fixed Investment:

- While the Federal Reserve's monetary policy has not reduced consumer spending to pre-pandemic trend levels, it has had a major negative impact on fixed investment.
- Real residential investment, after stagnating in 2018 and 2019, boomed during the COVID pandemic starting in the third quarter of 2020. The boom lasted through the first half of 2022, but residential investment then dropped steeply. By the first quarter of 2023, real residential investment fell to a level not seen since 2015. Sluggish growth was registered in the second half of 2023.
- There was no pandemic-related boom for real non-residential investment.
- Following a drop in the first half of 2020, non-residential investment in equipment posted small gains, reaching an all-time high in the third quarter of 2022, but volumes have since stabilized.
- Real non-residential investment in structures fell sharply during the pandemic. By the third quarter of 2022, this investment contracted to the lowest level since 2013. However, since the third quarter of 2022, it has been rising, including an increase of 15% year-over-year in the fourth quarter of 2023.
- The major types of fixed investment – residential investment and non-residential investment in structures and equipment – have substantial growth potential that could be limited if interest rates remain high.

- Seasonally adjusted housing starts increased every month between August and December 2023, but by March 2024, they fell 15% compared to December, almost back to the August level. Nevertheless, the residential investment outlook is favorable, depending on monetary policy relaxation.
- Non-residential investment prospects are also positive. Non-residential investment in structures has been gaining momentum primarily due to increases in construction of manufacturing facilities, as the U.S. seeks to repatriate production, including the manufacturing of autos, computer components, and healthcare-related products. A notable exception to a positive outlook is office building construction.
- A recovery in investment in structures would positively affect imports of building materials, appliances, furniture, and other furnishings.
- Trucks could be a non-residential equipment commodity with growth potential, recovering from a slump in 2020 through the first half of 2022. Investment in computers and peripheral equipment may also have bottomed out, increasing in the fourth quarter of 2023 and likely to continue growing. In contrast, investment in construction machinery apparently reached a plateau after strong growth in 2021 and 2022.

New Privately-Owned Housing Units Started, thousands, seasonally adjusted at annual rates

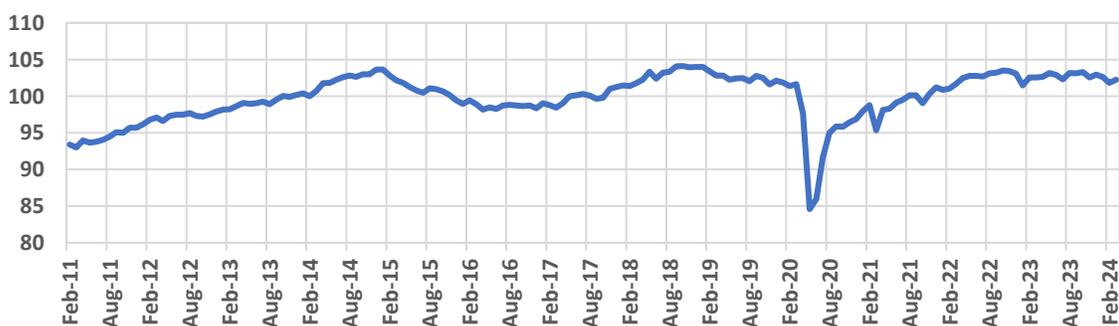


Source: Federal Reserve Bank of St. Louis Economic Database (FRED)

Industrial Production:

- Real industrial production has stagnated with a slight downward trend since the fall of 2022, following a long recovery from the slump at the beginning of the COVID pandemic. COVID stimulus funding did not result in increased industrial production, which has remained below the peak levels at the end of 2018.
- Real industrial production is likely to start rising, boosted by recent investment and retailers' inventories being trimmed back to more sustainable levels compared to sales.

Real Industrial Production, index numbers (2017 = 100), seasonally adjusted



Source: Federal Reserve Bank of St. Louis Economic Database (FRED)



Geopolitical Developments and Risks:

- The geopolitical environment is an important risk for macroeconomic assumptions and trade forecasts, with China, Russia, Iran, and North Korea challenging the U.S., Europe, and allies for global influence. Armed conflicts in Ukraine and the Middle East are contributing to this risk.
- The macroeconomic and trade outlook assumes that geopolitical tensions will not become significantly worse in 2024. Geopolitical assumptions behind the macroeconomic and trade outlook for 2024 include:
 - ✓ The Houthi/Red Sea conflict will improve, though not necessarily quickly.
 - ✓ The conflict between Iran and Israel will not significantly expand.
 - ✓ China will not take overly aggressive actions toward Taiwan.
 - ✓ The Russia-Ukraine war will not expand to other European countries.
- Impacts of the Houthi/Red Sea conflict
 - ✓ Houthi attacks on vessels have been increasing the cost of shipping goods between Asia and North America/Europe. These increased costs result from higher insurance premiums for Red Sea/Suez Canal transits and increased ship operating costs from longer distance services rerouted around the Cape of Good Hope. These higher costs will likely be passed on to beneficial cargo owners and consumers.
 - ✓ Under the base case scenario, the Houthi/Red Sea issues will improve, and the cost of moving containers via the Red Sea/Suez Canal could decline towards previous levels. If the Fed reduces the short-term interest rate (Federal Funds Rate) in 2024 this reduction would likely give economic growth a modest boost, with U.S. import volumes rising. Export volumes could also be expected to increase since lower U.S. interest rates usually result in a lower value for the U.S. dollar. Since most U.S. exports are agricultural and industrial commodities, the lower cost to importers of these commodities could lead to higher U.S. exports.
 - ✓ Under a less likely scenario, Red Sea issues would not improve, and the cost of shipping goods between Asia and North America/Europe could continue to rise. Further disruptions to supply chains could be expected, with resulting price increases adding to overall inflation. In this case, the Fed would face a dilemma. It could make monetary policy more restrictive, which would dampen economic growth and imports. Alternatively, the Fed could focus on stimulating economic growth hurt by supply issues, by reducing the Fed Funds Rate more than currently anticipated.
- Containerized commodity exposure to Middle East and South Asia trade disruptions
 - ✓ U.S. containerized trade with Middle East countries (excluding those on the Mediterranean Sea) and with South Asian countries represents the highest risk of disruption due to the Middle East crisis.
 - ✓ Overall, these two regions' shares of U.S. containerized trade are not very high. In 2023, their shares were 8% of imports and 12% of exports. However, for some commodities the Middle East and South Asia shares are relatively significant.
 - ✓ Of the import commodities examined in this report, cyclical hydrocarbons had the highest share of imports from these two regions, 34% in 2023, followed by articles of iron or steel at 15%. For exports to these regions, cars and waste paper had the highest shares, 36% and 24%, respectively.
 - ✓ It is possible that the Red Sea crisis has started having a negative impact on U.S. containerized trade. In the first two months of 2024, containerized imports from South Asia declined 5% year-over-year, while total U.S. containerized imports increased 5%.
 - ✓ Linen, the *commodity in spotlight* in this Navigator edition, is an example of a commodity that may be affected by Red Sea disruptions. South Asia accounted for 55% of U.S. containerized linen imports in



2023. In the first two months of 2024, linen imports from South Asia fell 10% year-over-year, while U.S. containerized linen imports from the rest of the world rose 23%.

- ✓ Solar panels imports were not significantly dependent on South Asia – the share of the region was 9% in 2023, with India accounting for almost all of it. Nevertheless, the prospects for solar panel imports from India were highly promising, especially considering the introduction of tariffs on solar panel imports from the main origins in Southeast Asia. Imports from India could potentially significantly dampen the tariff impact. Solar panel imports from India increased five-fold in 2023. However, they plunged 35% year-over-year in January-February 2024, while imports from the rest of the world rose 8%.
- ✓ Containerized exports South Asia fell 6% year-over-year in January-February 2024, while total U.S. containerized exports increased 6%. Containerized exports to India, the second largest destination, represented the most significant decline in absolute terms in January-February 2024.
- ✓ Plastics in primary forms is the main growth commodity for U.S. containerized exports. In 2023, exports of this commodity to South Asia grew three times faster than to the rest of the world. However, in January-February 2024, exports of plastics in primary forms to South Asia plummeted 47% year-over-year, while total U.S. containerized exports of this commodity increased 16%.
- ✓ South Asia (primarily India) accounted for 22% of total U.S. containerized exports of wood in the rough in 2023. In the first two months of 2024, exports of wood in the rough to South Asia fell 22% year-over-year, while exports to the rest of the world rose 20%.
- ✓ The main containerized import commodities with high exposure to the Middle East / South Asia trade disruptions are mostly industrial and construction materials. They also include consumer goods: textiles, food, and pharmaceuticals.
- ✓ Higher transportation / insurance costs caused by the Red Sea crisis are likely to result in a proportionally more significant price increase for low value commodities than for high value commodities. Therefore, imports of low value commodities may be at a higher risk of disruption.
- ✓ The average unit value of containerized goods imported by the U.S. in 2023 was \$5.14 per kilogram. Most major commodities imported in containers from the Middle East / South Asia region had values significantly below the U.S. average. Therefore, their imports may be especially vulnerable to transportation / insurance increases. The values of salt and natural barium sulphate / natural barium carbonate were the lowest at less than 10 cents per kilogram.
- ✓ In contrast, medicaments, as well as suits, jackets, and trousers are relatively expensive. For them, a cost mark-up due to the Red Sea crisis may be less important.
- ✓ The table below shows commodities with largest containerized volumes¹ imported from the Middle East / South Asia region with a substantial, at least 20%, share of the region in respective commodity total U.S. containerized imports in 2023. These commodities jointly accounted for 40% of containerized imports from the Middle East / South Asia region.

¹ At the four-digit code Harmonized System (HS) classification level

Containerized Imports from Middle East / South Asia in 2023

Commodity	Thousands of metric tons	Regional share in U.S. imports	Customs value, \$/kg
Salt	1,011	44%	0.02
Ceramic flags and paving, hearth or wall tiles, etc.	669	23%	0.29
Aluminum, unwrought	607	68%	2.70
Linen	496	56%	6.14
Articles of cement, concrete or artificial stone	437	28%	0.95
Rice	335	27%	1.22
Structures of iron or steel and parts thereof	315	21%	1.85
Crustaceans	302	42%	6.28
Plastic plates, sheets, film, foil and strip (not self-adhesive)	270	28%	2.04
Natural barium sulphate; natural barium carbonate	251	35%	0.09
Miscellaneous iron or steel tubes and pipes (not seamless)	239	43%	1.18
Cyclic hydrocarbons	237	34%	1.16
Men's suits, jackets, trousers, etc., not knitted	177	46%	13.64
Tube or pipe fittings of iron or steel	160	29%	2.53
Transmission shafts, bearings, etc.	151	22%	5.65
Nails, tacks, etc. of iron or steel	138	23%	1.45
Miscellaneous cast articles of iron or steel	128	66%	1.71
Women's suits, jackets, trousers, etc., not knitted	128	28%	17.06
Medicaments in measured doses or packed for retail sale	121	45%	43.73
Textile sacks and bags for packing	114	60%	2.28
T-shirts, knitted	113	21%	9.26

Containerized Imports

Outlook:

- Following normal seasonal patterns, containerized import volumes are likely to trend upward in 2024 through July and August, the typical peak season.
- Following a 12% decline from 2022 to 2023, a robust 7% recovery is expected overall in 2024.

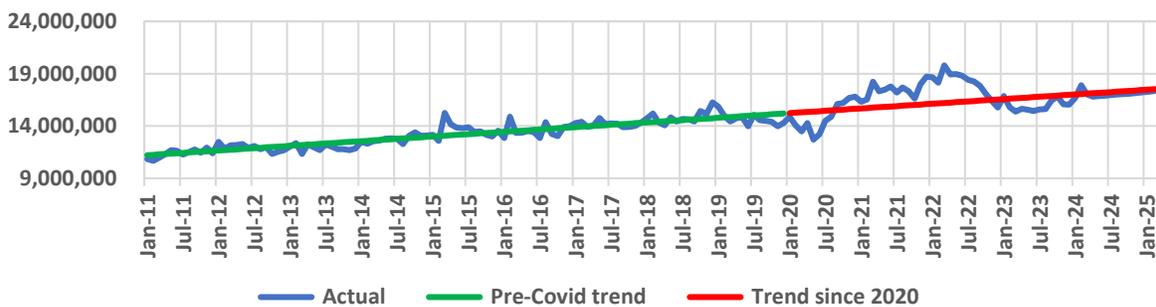
Outlook Background:

- Containerized imports dropped in the second half of 2022, as the stimulus funding impact diminished and monetary policy tightened. However, the decline appears to have faded. In the first two months of 2024, volumes increased 5% year-over-year.
- The gap below the long-term pre-COVID import trend stabilized at 7%-8% during the summer of 2023 and then narrowed to 2% in January 2024. In February 2024, the gap was 5% above the long-term trend.

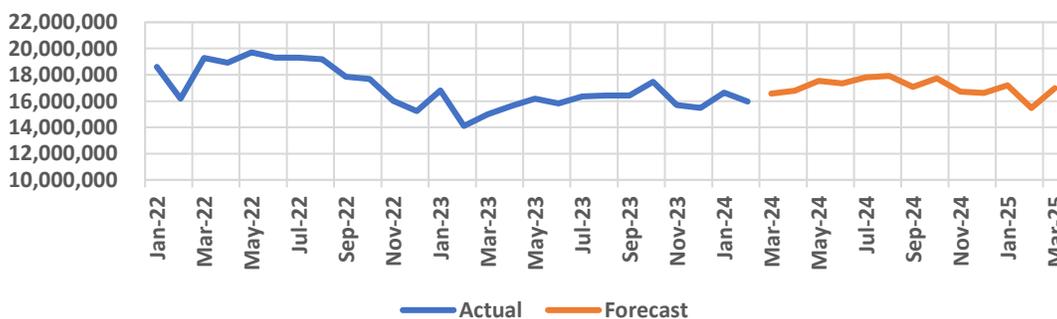
Key Risks:

- Geopolitical instability is the main risk factor. This includes the Red Sea crisis, which has created a significant risk of major disruptions for imports from South Asia. Containerized imports from that region fell 5% year-over-year in the first two months of 2024.
- China accounted for almost two thirds of the total containerized import increase in January-February 2024. China’s economic woes and tensions with the U.S. could lead to import volumes lower than expected.
- The pace of monetary policy relaxation may have an impact on imports, either positive or negative.
- Containerization volatility and changes in competition with overland shipments from Canada and Mexico could reduce or increase containerized import volumes from current projections.

Total Containerized Imports, seasonally adjusted, metric tons



Total Containerized Imports, not seasonally adjusted, metric tons



Principal Commodities - Import Volumes

- Solar panels and other photosensitive semiconductor devices was the top growth commodity with containerized tons increasing in 2023. The other top commodities with year-over-year growth in 2023 include cars; cyclic hydrocarbons; construction and lifting machinery; and lithium-ion batteries.
- Major commodities with volume declines in 2023 were wood; furniture; plastics; machinery (except construction and lifting); and articles of iron or steel.
- Linen is the *commodity in spotlight* in the current Navigator edition. Linen imports grew slowly before the COVID pandemic, increased sharply in 2021, and fell significantly in 2022 and 2023.
- Unlike in 2023, solar panel volumes increased only slightly year-over-year in the first two months of 2024. Containerized import growth was mainly driven by a rebound in commodities whose volumes posted major declines in 2024 – plastics, furniture, and articles of iron and steel.
- South Korea was the most significant positive contributor to containerized imports in 2023, primarily through a strong rise in car imports. China accounted for a third of the decline in U.S. containerized imports in 2023 and almost two thirds of the increase in the first two months of 2024. Furniture declined the most in imports from China in 2023. The highest growth Chinese import commodity in January-February 2024 was plastics.

Containerized Imports

Commodity	Thousands of metric tons			Year-over-year growth rates			
	2022	2023	Difference	2023	Jan-Feb 2024	2024	2025Q1
Total commodities	217,336	191,429	-25,907	-11.9%	5%	7%	1%
Top growth commodities in 2023							
Photosensitive semiconductor devices	1,915	3,507	1,593	83%	4%	10%	-27%
Cars	690	1,353	663	96%	14%	-20%	6%
Cyclic hydrocarbons	280	689	409	146%	-28%	-6%	-6%
Construction and lifting machinery	1,143	1,513	369	32%	10%	6%	0%
Lithium-ion batteries	617	828	212	34%	-15%	17%	15%
Major commodities with volume declines in 2023							
Articles of iron or steel	10,135	8,955	-1,180	-12%	18%	10%	1%
Plastics	14,178	12,801	-1,377	-10%	26%	16%	-5%
Machinery, except construction and lifting	14,298	12,707	-1,591	-11%	8%	6%	0%
Furniture	14,868	12,177	-2,691	-18%	20%	15%	8%
Wood	10,348	7,159	-3,189	-31%	4%	24%	9%
Commodity in spotlight							
Linen	942	893	-49	-5%	4%	6%	8%

Photosensitive Semiconductor Devices

Outlook:

- Robust growth in imports of solar panels and other photosensitive semiconductor devices is expected in the spring of 2024, prior to the introduction of new tariffs that will likely result in a significant volume decline in the second half of 2024.

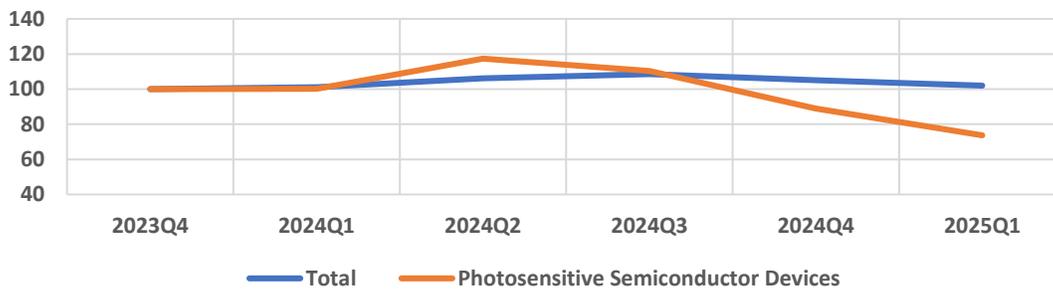
Outlook Background:

- After strong month-on-month growth in the second half of 2022 and January 2023, imports stabilized.
- In August 2023 the U.S. Department of Commerce determined that Cambodia, Malaysia, Thailand, and Vietnam, which account for over four-fifths of U.S. solar panel containerized imports, circumvented tariffs imposed on China. As a result, some imports from these countries are expected to be subject to tariffs starting in June 2024.

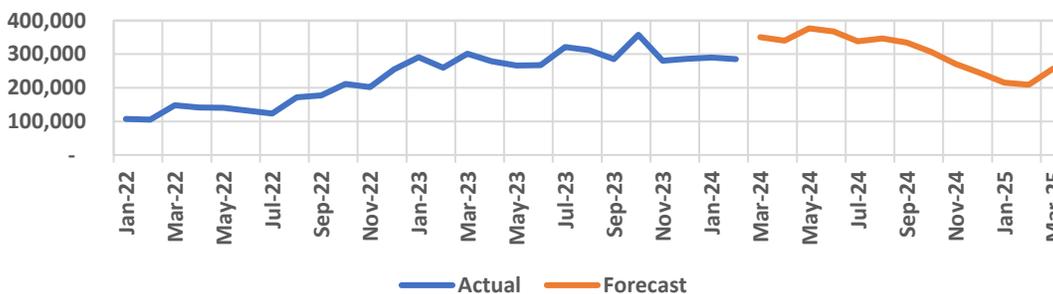
Key Risks:

- A substantial share of imported solar panels from the four countries listed above may be exempt from the tariffs following a certification process that would show compliance with U.S. regulations.
- Solar panel containerized imports from India increased five-fold in 2023, much faster than imports from the four countries noted above. Imports from India could potentially significantly dampen the tariff impact. However, in the first two months of 2024, these imports fell 35% year-over-year, and Red Sea shipping disruptions may further jeopardize imports from that country.
- Trade policy decisions may have a major impact on solar panel tariffs and imports in positive or negative directions.

Containerized Imports, 2023Q4 = 100



Photosensitive Semiconductor Devices, Containerized Imports, metric tons



Cars

Outlook:

- Through early 2025, containerized car imports are unlikely to return to the peak levels of May-June 2023.
- Imports will likely trend upward through the end of 2024 but remain relatively low until a seasonal rebound in the fourth quarter. Overall, 2024 imports are projected to fall significantly compared with 2023.

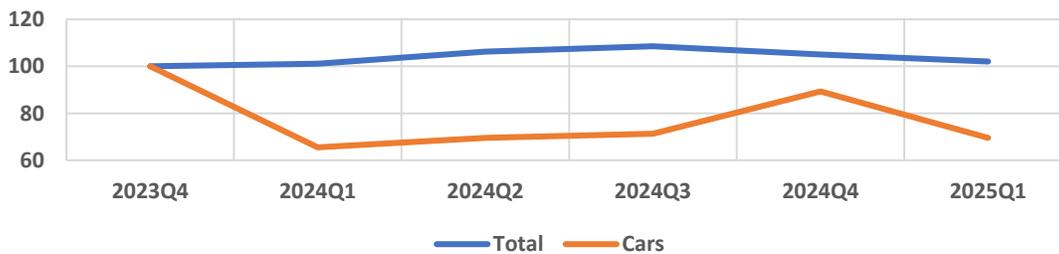
Outlook Background:

- Total seaborne import volumes contracted 7% between 2019 and 2022. Over the same period, containerized car imports surged 128%, as containerization rates rose from 4% in 2019 to 9% in 2022.
- In 2023, containerization grew further, to 15%, the main reason that containerized imports increased 96%, about four times as fast as total seaborne car imports. However, volumes dropped sharply in January and February 2024. The January decline was mostly seasonal, but the February plunge was significantly below seasonal patterns, as containerization fell from 13% to 8% during these two months.

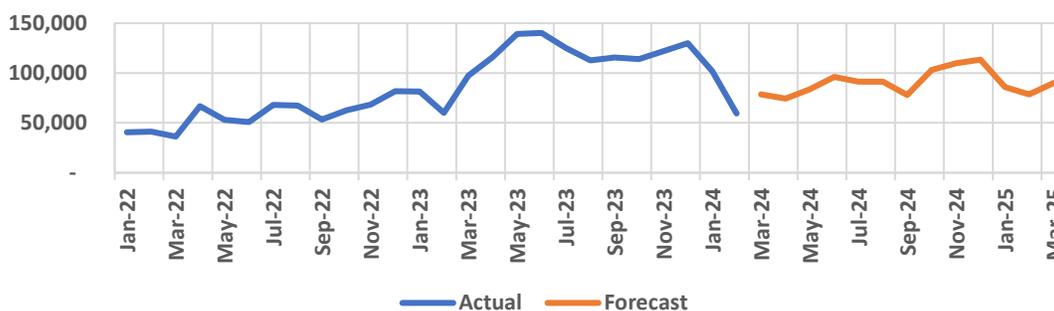
Key Risks:

- Containerized car import volumes are more dependent on highly volatile containerization rates than on U.S. demand for cars or production capacity abroad.
- The strong demand for cars could be dampened, and the overall car import recovery from the COVID-related slump may end, especially if monetary policy relaxation proceeds slowly.
- Competition with mostly overland imports from Canada and Mexico could dampen seaborne car imports. Those countries’ share of U.S. imports rose from 40% in 2021 to 44% in 2023.

Containerized Imports, 2023Q4 = 100



Cars, Containerized Imports, metric tons



Construction and Lifting Machinery

Outlook:

- The usual peak import season for construction and lifting machinery is from March through July, while February and September are typically lower-volume months.
- Following a slight quarter-over-quarter drop in the first quarter of 2024, imports of construction and lifting machinery will likely grow in the second quarter of 2024, before declining in the third quarter.

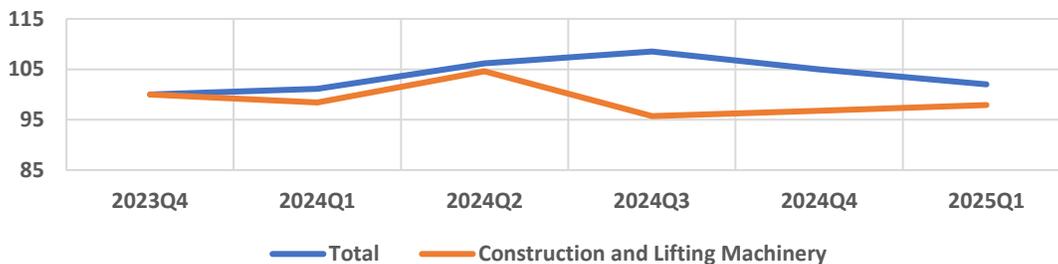
Outlook Background:

- Unlike many other imported commodities, construction and lifting machinery volumes did not boom as a result of COVID-related stimulus funding. However, imports grew significantly in the second half of 2022, when overall containerized imports significantly declined.
- The exceptionally strong growth in imports has waned. Volumes were mostly stable in the second half of 2023. In February 2024, imports were 7% below the typical seasonal pattern.

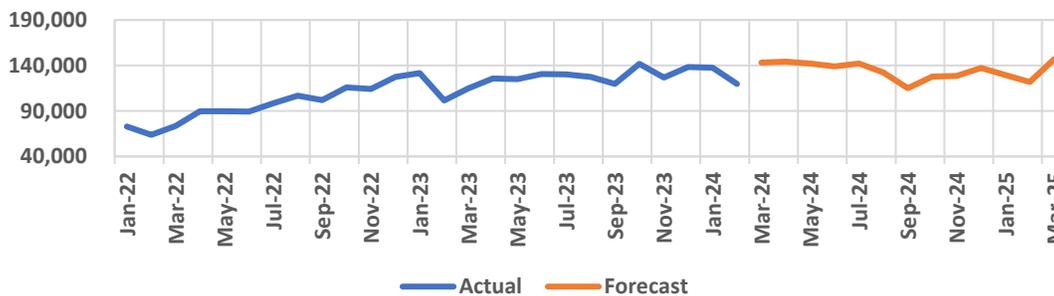
Key Risks:

- The recent strong increase in construction machinery imports is not in line with fixed investment growth, and there is therefore a risk of import decline.
- Persistent inflation and a delayed relaxation of monetary policy could cause a decrease in residential investment and suppress demand for construction machinery.
- Containerization rates increased from 48% in 2022 to 50% in 2023 and 58% in February 2024, exceeding the peak rate of 54% reached in 2016. Possible containerization declines to historically normal rates could lead to lower containerized volumes than those projected.

Containerized Imports, 2023Q4 = 100



Construction and Lifting Machinery, Containerized Imports, metric tons





Cyclic Hydrocarbons

Outlook:

- The second and third quarters are usually the peak import season for cyclic hydrocarbons (comprised mostly of *benzene* and *para-xylene*).
- Following a sharp decline at the end of 2023, volumes are likely to recover by the third quarter of 2024. However, barring a significant rise in containerization rates, this commodity is expected to decline significantly year-over-year in 2024 and in the beginning of 2025.

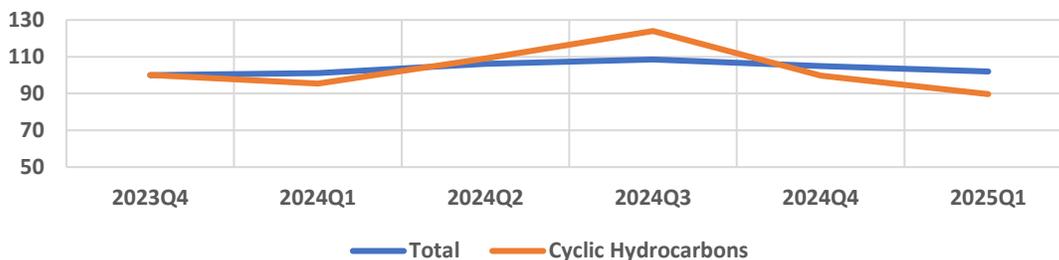
Outlook Background:

- Unlike many other imported commodities, cyclic hydrocarbons import volumes did not experience a boom related to COVID-related stimulus funding. However, imports grew in the second half of 2022.
- In 2023, imports of containerized cyclic hydrocarbons surged 146%, in large part due to an increase in containerization from 8% in 2022 to 16% in 2023. Although containerization fell to 14% in the first two months of 2024, it is still high by historical standards – it was 5% in 2015-2021 - and is likely to decline.
- After containerized cyclic hydrocarbon imports peaked in July 2023, they stabilized and then fell sharply in December 2023. Imports from Saudi Arabia, the main origin overall in 2023, dropped to a mere 200 tons in December 2023 and January 2024 combined, but then recovered in February.

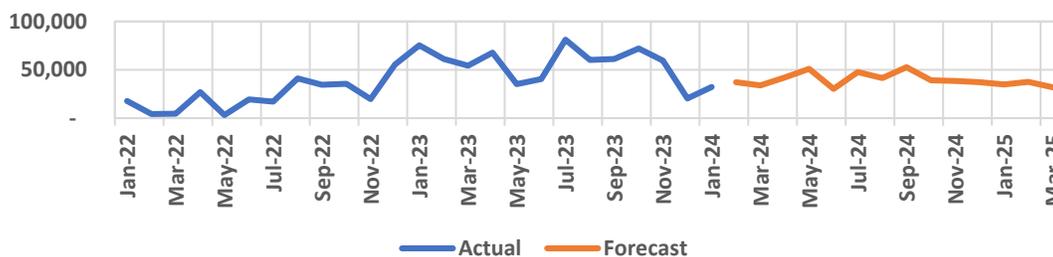
Key Risks:

- Volumes of containerized cyclic hydrocarbon imports are more dependent on highly volatile containerization rates than on U.S. demand or production capacity abroad.
- Supply disruptions caused by the Red Sea crisis and competition with domestic cyclic hydrocarbon production could dampen import volumes, primarily from Saudi Arabia, more than currently projected.

Containerized Imports, 2023Q4 = 100



Cyclic Hydrocarbons, Containerized Imports, metric tons



Lithium-Ion Batteries

Outlook:

- Lithium-ion battery imports may reach the exceptionally high levels of early 2023 in the spring of 2024, but most likely this will occur in 2025.
- Year-over-year growth will likely remain in double-digits in 2024 and the beginning of 2025 despite an expected slowdown compared to growth in 2023.

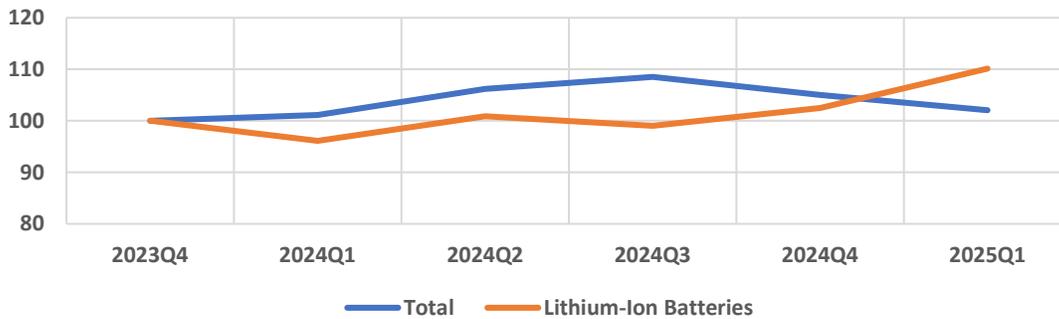
Outlook Background:

- Lithium-ion batteries is an exceptionally strong growth commodity.
- After a sharp increase in 2022 and, especially in January 2023, imports declined to relatively moderate levels, but growth resumed in the third quarter of 2023. The drop in 2024 through February is likely temporary.

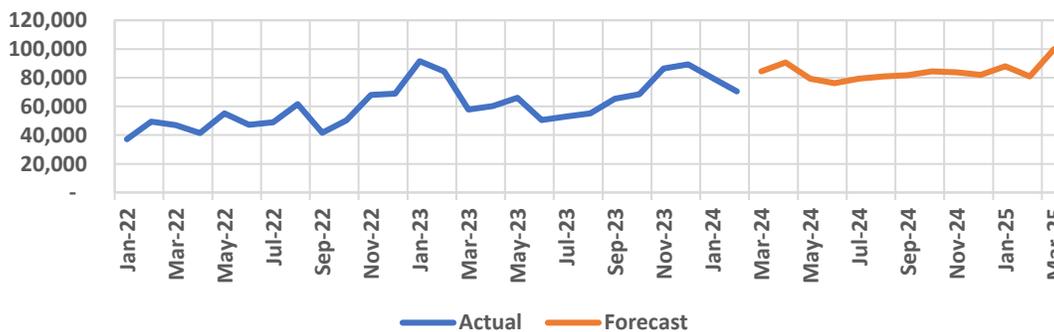
Key Risks:

- While annual growth potential appears to be strong, monthly and quarterly volatility is high.
- The U.S. is trying to move its supply sources away from China, the dominant supplier of lithium-ion batteries to the U.S. Nevertheless, China’s share of U.S. lithium-ion battery imports rose from 79% in 2022 to 86% in 2023 and 88% in January-February 2024. The near-term ability of other countries to compete with China in the U.S. import lithium-ion battery market is questionable. Lithium-ion battery imports from Japan, the second largest origin in 2022, plummeted in 2023.

Containerized Imports, 2023Q4 = 100



Lithium-Ion Batteries, Containerized Imports, metric tons



Articles of Iron or Steel

Outlook:

- Containerized imports of iron or steel articles are expected to rise by May 2024, which is typically the peak import month.
- Volumes will likely be the highest in the second quarter of 2024 and lowest in the fourth quarter.

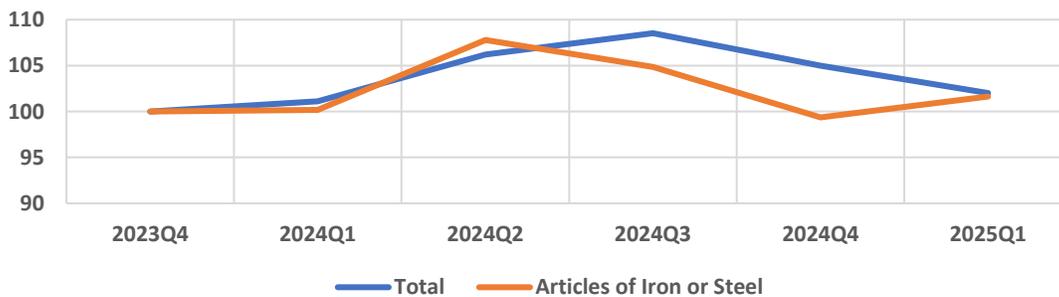
Outlook Background:

- In 2010 to 2022, containerized imports of iron or steel articles grew faster than total containerized imports.
- After a boom during the pandemic, imports of iron or steel articles dropped sharply. The gap below the pre-COVID trend was 17% in March 2023. However, volumes rose to 10% above the trend in February 2024. They are likely to fall closer to the trend in the second quarter of 2024.
- In the first two months of 2024, containerization surged to 78% from 64% a year earlier, which was the main reason for an increase in containerized imports, as total seaborne volumes fell.

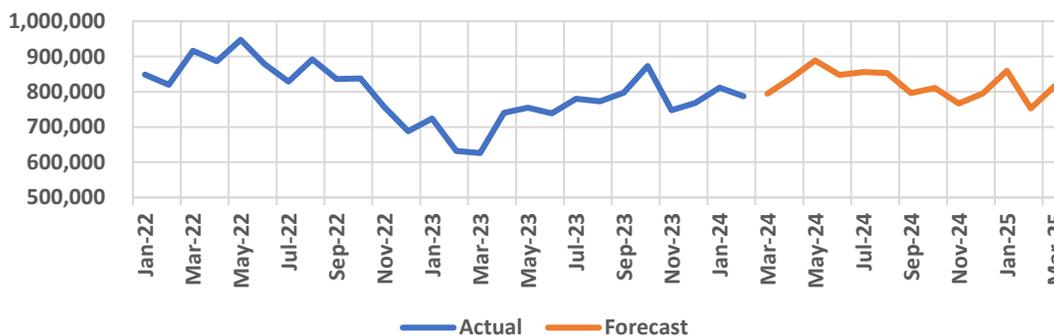
Key Risks:

- China, India, and Taiwan accounted for almost two thirds of iron or steel articles containerized imports in 2023. Rising tensions with China, as well as Red Sea transportation disruptions may suppress volumes. Imports from India already dropped 8% year-over-year in the first two months of 2024.
- Rising competition with imports from Mexico and Canada (mostly overland) could dampen containerized imports. Canada and Mexico’s share of total import value increased from 25% in 2022 to 27% in 2023.

Containerized Imports, 2023Q4 = 100



Articles of Iron or Steel, Containerized Imports





Machinery

Outlook:

- A seasonal recovery in machinery imports likely started in March and is expected to peak in May 2024.
- Though volumes will likely decline on a month-on-month basis from May to September, they are expected to grow strongly overall in 2024 compared to 2023.

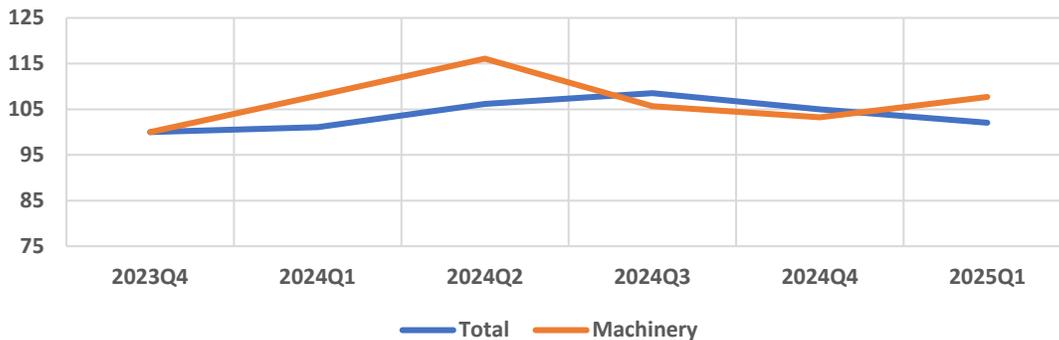
Outlook Background:

- From 2010 to 2022, machinery imports grew much faster than total containerized imports.
- After a boom during the pandemic, volumes fell sharply. However, significant declines appear to be over. Between December 2023 and February 2024, monthly volumes were 3% above the normal seasonal pattern. *Refrigerators and freezers* contributed the most to containerized import year-over-year growth in the first two months of 2024, to some extent bolstered by a drop in overland imports from Mexico.

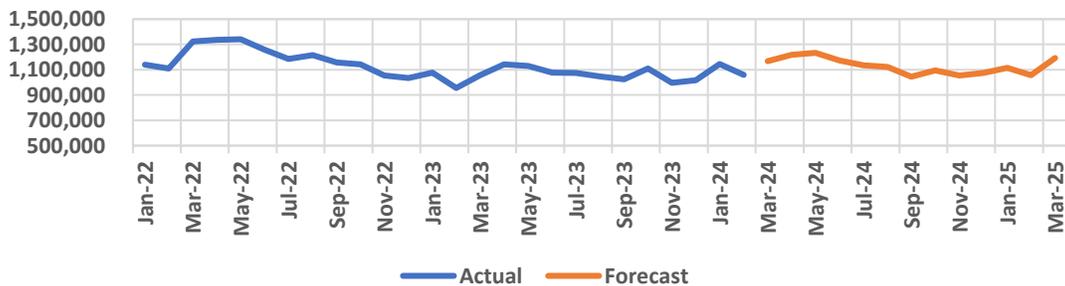
Key Risks:

- Persistent inflation and a delayed relaxation of monetary policy could suppress investment in equipment and, therefore, demand for machinery.
- Competition with imports from Canada and Mexico (mostly overland) could impact containerized imports. While containerized *refrigerator and freezer* imports have been gaining compared to overland volumes, *taps, valves, bearings, transmission shafts, gears, and gaskets* are among commodities with rising shares of imports from Canada and Mexico.

Containerized Imports, 2023Q4 = 100



Machinery, Containerized Imports, metric tons



Plastics

Outlook:

- Plastics imports (primary forms and plastic articles combined) are expected to significantly rise from the seasonal trough in February 2024 to a seasonal peak in May 2024.
- Compared to the fourth quarter of 2023, plastics imports will likely grow faster than total containerized imports in the first half of 2024, before declining through the first quarter of 2025.

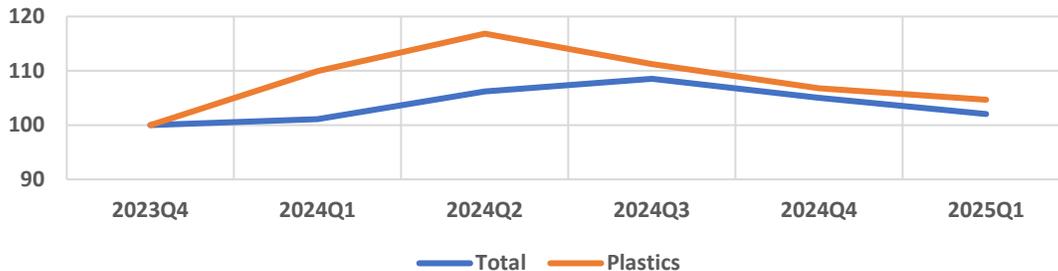
Outlook Background:

- From 2010 to 2022, plastics was a strong-growth commodity, significantly outpacing growth of total containerized imports. After a boom during the pandemic, plastics imports declined between May 2022 and February 2023. However, since then they have mostly recovered, rising 35% in February 2024 from a year earlier.
- Despite a significant decline in 2023, plastics imports remained above the pre-COVID trend, unlike many other commodities for which imports posted sharp year-over-year declines. The gap above the trend rose to a very high 27% in February 2024. Volumes will likely decline toward the trend in 2024.

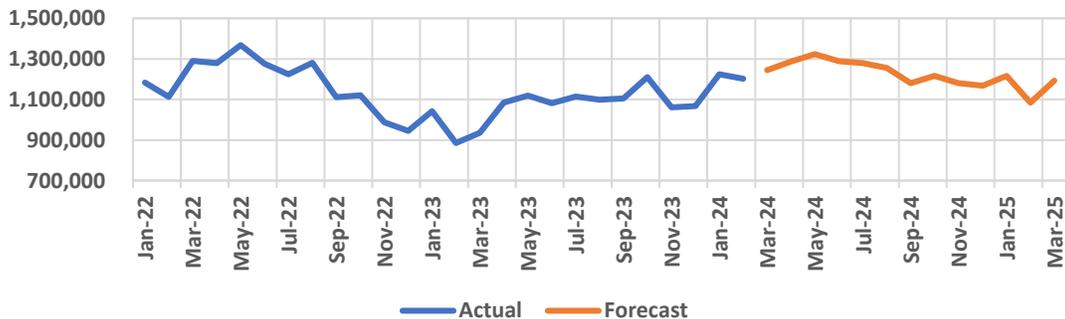
Key Risks:

- Competition with imports from Canada and Mexico (mostly overland) could dampen containerized import volumes. Canada and Mexico’s share of total plastics import value rose from 27% in 2020 and 29% in 2022 to 31% in 2023.
- Competition with domestic plastics production could lessen demand for imports.

Containerized Imports, 2023Q4 = 100



Plastics, Containerized Imports, metric tons



Wood

Outlook:

- Containerized wood import volumes will most likely start recovering from seasonal winter lows, peaking in July and August 2024.
- Year-over-year, containerized wood import volumes are expected to grow by double-digits in 2024. Growth will likely slow to single digits but remain strong in early 2025.

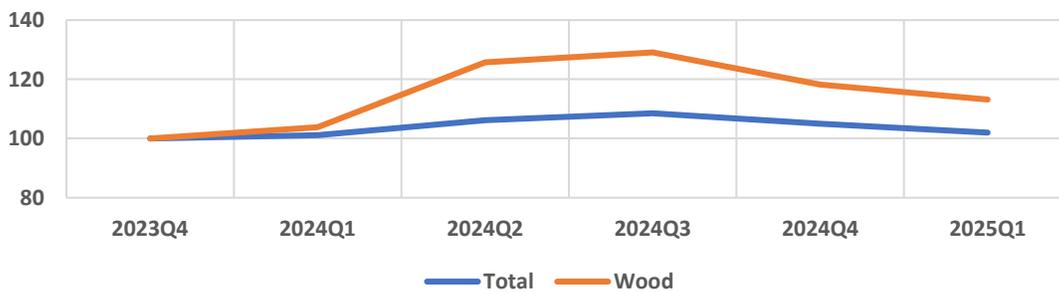
Outlook Background:

- In 2010 through 2022, containerized wood import volumes grew faster than total containerized imports. However, after a boom during the pandemic, volumes dropped dramatically.
- On the positive side, volumes increased in most months starting in March 2023. Containerized volumes below the pre-COVID trend narrowed from 33% in June 2023 to just 6% in February 2024 due to higher containerization, as total seaborne imports declined. Volumes will likely remain below the trend in 2024.

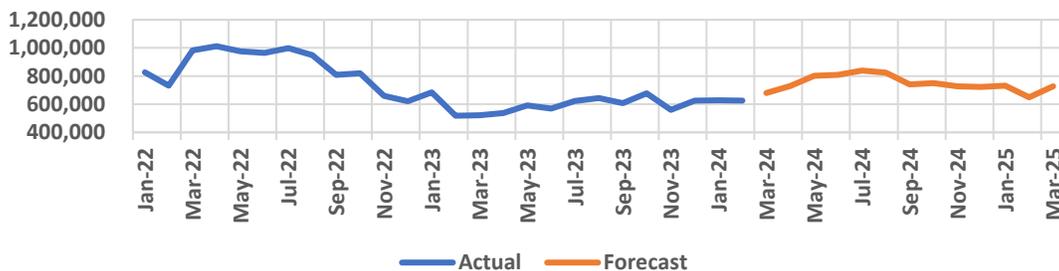
Key Risks:

- Persistent inflation and a delayed relaxation of monetary policy could cause a decline in investment.
- Wood import containerization rates rose from 72% in 2022 to 74% in 2023 and 76% in January-February 2024. However, this containerization is still low by historical standards, increasing the possibility that it could rise, further boosting containerized wood import volumes.
- Competition with imports from Canada (that are almost all overland) contributes to seaborne import volatility. For some commodities, such as *particle board*, seaborne imports have been losing share, while for others, including *wood sawn lengthwise, etc.*, seaborne shares have been growing.

Containerized Imports, 2023Q4 = 100



Wood, Containerized Imports, metric tons



Furniture

Outlook:

- Year-over-year containerized furniture imports are expected to grow significantly faster than total containerized imports in 2024 and the beginning of 2025.
- January is typically a seasonal peak. Volumes likely dropped in March 2024, a seasonal trough month.

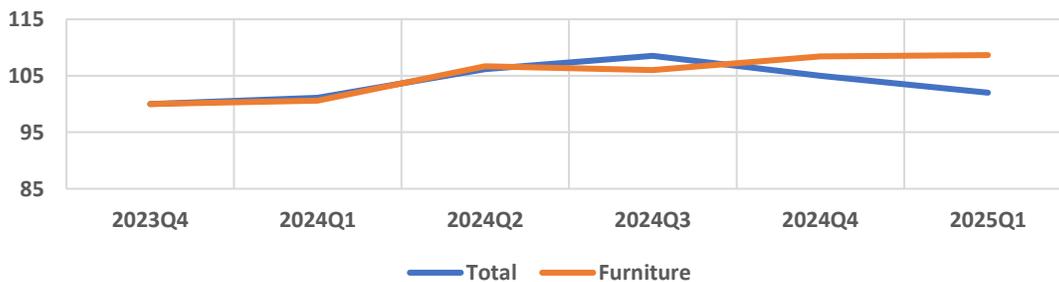
Outlook Background:

- In 2010 to 2022, containerized furniture imports grew faster than total containerized imports.
- After a boom during the pandemic, furniture imports dropped sharply. However, the gap below the pre-COVID trend narrowed from 28% in March 2023 to 5% in February 2024. Consumer spending on furniture has been close to its long-term trend, and furniture imports are therefore likely to stay relatively close to their long-term trends.
- The share of furniture imports from Canada and Mexico (almost exclusively overland) increased in 2021-2023. But in the first two months of 2024, overland imports fell giving a boost to containerized imports.

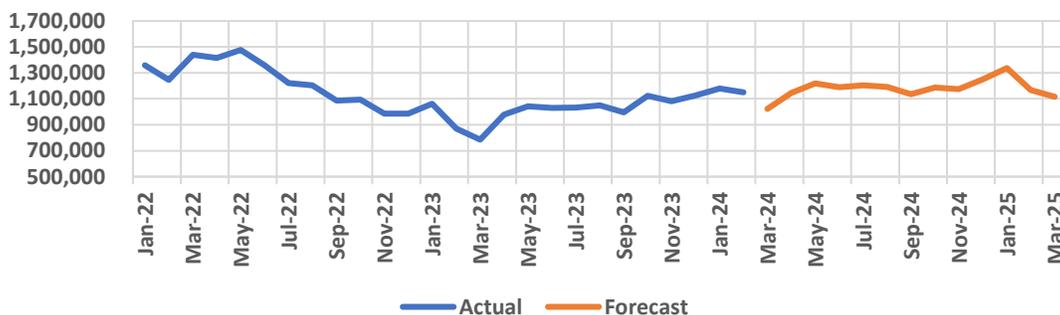
Key Risks:

- Containerized furniture imports from China accounted for half of U.S. containerized furniture imports in the first two months of 2024, and they grew faster than imports from the rest of the world. However, volume growth may be dampened by rising U.S.-China tensions.
- If inflation is persistent and tight monetary policy is relaxed too slowly, this could cause a decline in residential and office investment, and therefore lower furniture sales and import volumes.
- A shift to remote work could dampen demand for office furniture and slow import volume recovery.

Containerized Imports, 2023Q4 = 100



Furniture, Containerized Imports, metric tons



Linen

Outlook:

- Containerized linen imports will likely grow on a month-on-month basis in 2024 through October, the typical peak month. December and February are usually low volume months.
- Overall, on a year-over-year basis, imports are expected to grow relatively strongly in 2024 and early 2025.

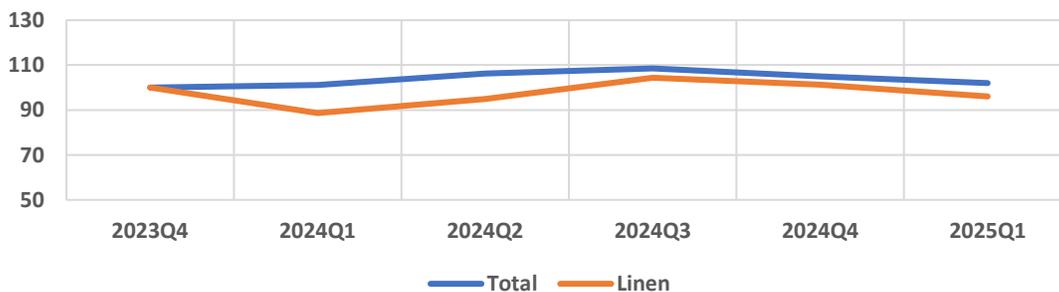
Outlook Background:

- Linen imports grew much slower than total containerized imports between 2010 and 2019. Linen imports surged in 2021, and in December 2021, they were 35% above the long-term pre-COVID trend.
- Volumes then plunged, and by October 2022 they dropped to 26% below the pre-COVID trend.
- However, imports then partly recovered, growing on a month-on-month basis through the peak month of October 2023. A month-on-month decline that followed this growth was mostly seasonal. The gap below the long-term trend narrowed to 10% in February 2024. In the first two months of 2024, volumes were up 4% from a year earlier.

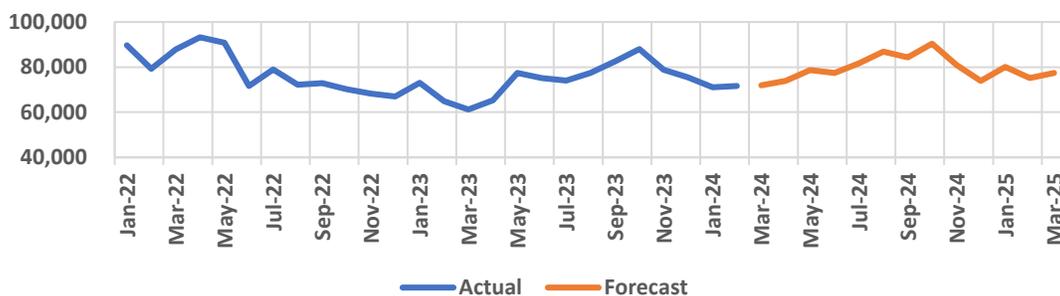
Key Risks:

- China is the main origin, with a share of 40% in 2023, and growth so far in 2024 was due almost exclusively to imports from China. Rising U.S.-China tensions may jeopardize future growth.
- The Middle East crisis and the Red Sea transportation disruptions pose a significant risk. India, Pakistan, and Bangladesh are respectively, the second, third, and fifth top major origins of U.S imports. In 2023, those countries jointly accounted for 55% of containerized linen imports. In the first two months of 2024, imports from these three countries fell 10% year-over-year.

Containerized Imports, 2023Q4 = 100



Linen, Containerized Imports, metric tons



Containerized Exports

Outlook:

- Containerized export volumes likely increased significantly in March 2024, the typical peak month and will trend downward through September 2024, a month with seasonally low volumes.
- Volumes fell 4% in 2023 but will likely grow 3% in 2024 and stay flat year-over-year in early 2025.

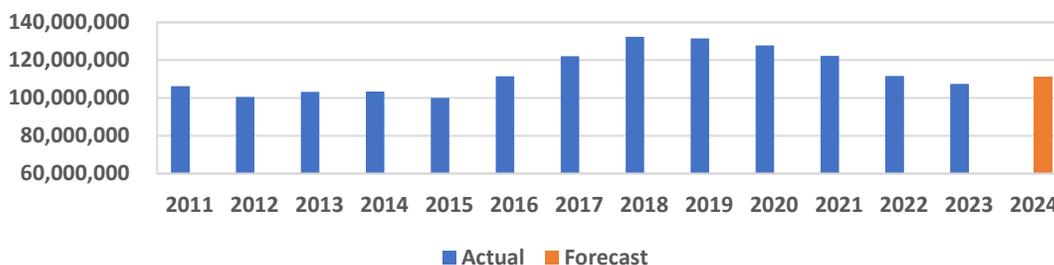
Outlook Background:

- U.S. containerized exports peaked in 2018 but have since declined each year. Unlike containerized imports, for exports there was no boom related to the COVID stimulus.
- In 2023, a broad-based decline in waste paper exports accounted for almost half of the total containerized export volume contraction. This decline continued in January-February 2024.
- Exports grew on a month-by-month basis beginning in July 2023, except in January 2024, when they fell mostly due to seasonal factors. Plastics in primary forms, as well as food industry residue and waste have been the main commodities driving growth.

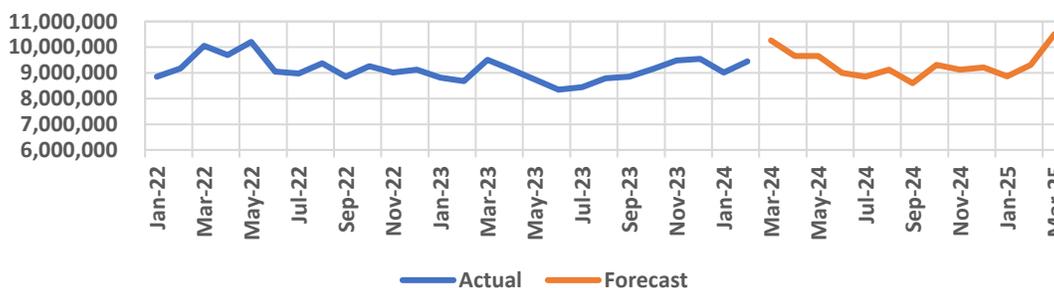
Key Risks:

- Containerized exports are more vulnerable to containerization volatility than imports since many exported U.S. commodities have significant bulk and break bulk shares.
- Policies in developing countries aimed at improving environmental protection and utilization of domestically produced waste could dampen global demand for a large portion of containerized exports.
- Containerized exports to India, the second largest destination, represented the most significant decline in January-February 2024. Shipments to India may be at risk due to Red Sea route disruptions.

Total Containerized Exports, metric tons



Total Containerized Exports, metric tons



Principal Commodities - Export Volumes

- Plastics in primary forms was by far the top commodity with containerized tons increasing in 2023. The other top growth commodities in 2023 include starch manufacture residues, sugar manufacture waste, etc.; natural sands; cars; and soybean oilcake.
- Major commodities for which volumes decreased in 2023 were waste paper; forage; cotton; wood in the rough; and kraft paper.
- Plastics in primary forms remained the main containerized export growth commodity in the first two months of 2024. At the same time, several commodities with major declines in 2023 – kraft paper, wood in the rough, cotton, and forage - posted double-digit growth. Waste paper was still the main commodity contributing to declines in overall containerized exports.

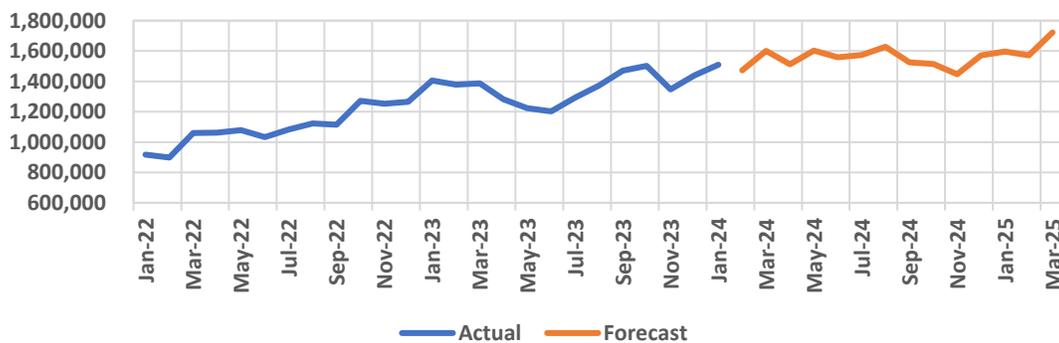
Containerized Exports

Commodity	Thousands of metric tons			Year-over-year growth rates			
	2022	2023	Difference	2023	Jan-Feb 2024	2024	2025Q1
Total commodities	111,606	107,496	-4,110	-4%	6%	3%	0%
Top growth commodities in 2023							
Plastics in primary forms	13,161	16,302	3,142	24%	11%	15%	6%
Starch manufacture residues, sugar manufacture waste, etc.	3,670	4,829	1,159	32%	29%	13%	-4%
Soybean oilcake	555	947	392	71%	118%	26%	-4%
Natural sands	680	1,065	384	56%	-3%	-20%	-1%
Cars	1,405	1,672	267	19%	7%	4%	-4%
Major commodities with volume declines in 2023							
Kraft paper	2,226	2,038	-188	-8%	72%	20%	-15%
Wood in the rough	1,992	1,538	-454	-23%	10%	1%	-14%
Cotton	3,560	2,966	-595	-17%	15%	2%	10%
Forage	4,398	3,354	-1,044	-24%	20%	4%	4%
Waste paper	12,280	10,294	-1,986	-16%	-20%	-7%	1%

Plastics in Primary Forms

- Plastics in primary forms has reemerged as one of the main contributors to containerized export growth, as U.S. production has benefited from access to relatively inexpensive hydrocarbons.
- Robust volumes are expected through August 2024. Exports will then likely drop by November, a typical seasonal trough. Overall growth is projected to slow in 2024 and 2025 but remain strong.
- A major risk factor is that half of export increases during 2023 went to China, which is a risky destination for geopolitical reasons and because past plastics exports to China were highly volatile. Exports to India, which grew rapidly in 2023 but plunged in the first two months of 2024, may be at risk of disruption due to the Red Sea crisis. Exports to Brazil contributed most to growth in the first two months of 2024.

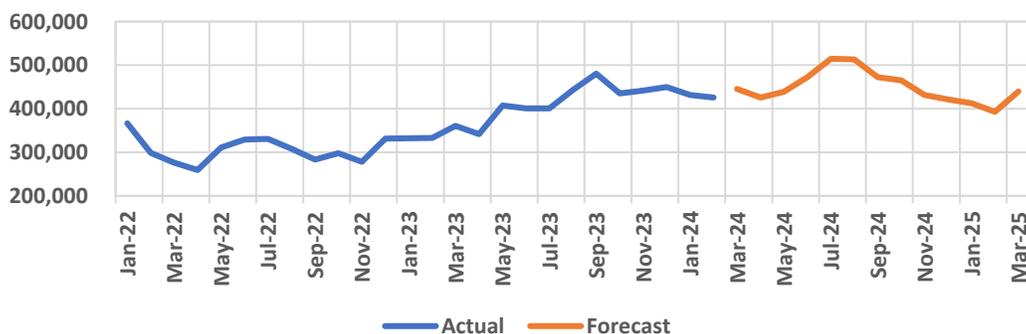
Plastics in Primary Forms, Containerized Exports, metric tons



Starch Manufacture Residues, Sugar Manufacture Waste, Etc.

- In 2023, containerized exports of this commodity grew by double-digits largely due to higher containerization of exports to Vietnam, Indonesia, and Turkey. Containerized exports expanded again year-over-year in the first two months of 2024, in large part by increased containerization rates.
- Summer is typically the peak season for containerized exports that will likely grow through July. Total seaborne export volumes, which increased in 2023 and through February 2024, are expected to resume a long-term decline in the remainder of 2024, dampening containerized 2024 export growth, followed by a year-over-year containerized volume drop in 2025.
- A return to historically normal containerization may result in lower volumes than currently projected.

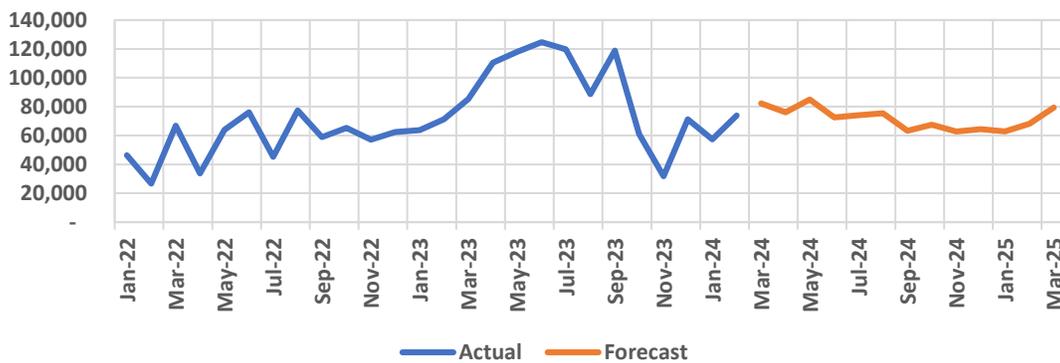
Starch and Sugar Manufacture Residues and Waste, Containerized Exports, metric tons



Natural Sands

- Containerized exports of natural sands grew quickly during the COVID pandemic and for most of 2023, largely due to shipments to China. However, exports to China fell sharply in the final quarter of 2023 and remained low through February 2024. In January and February 2024, Japan and Germany emerged as the main destinations, partially offsetting the decline of Chinese volumes. Exports may grow through May 2024 and then again in early 2025 but will likely remain below the exceptionally high levels of mid-2023.
- Exports of natural sands have been extremely volatile and concentrated in country destinations. There is a high risk that the rise of exports to Japan and Germany is temporary.

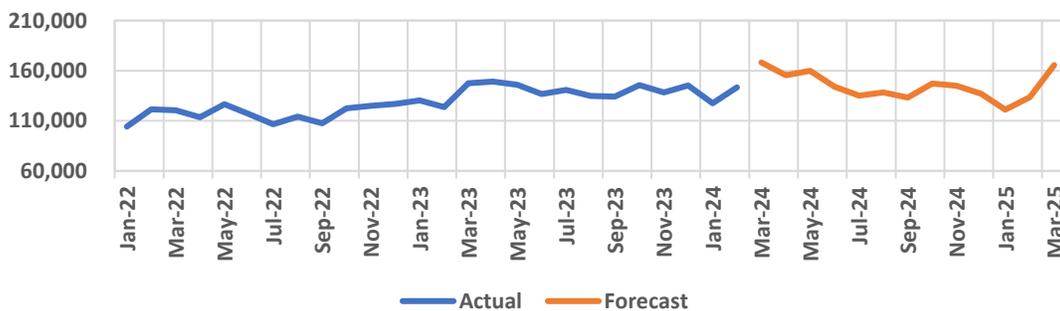
Natural Sands, Containerized Exports, metric tons



Cars

- Containerized car export volumes grew during 2023 mostly due to shipments of used vehicles to the United Arab Emirates (UAE), Georgia, and Lithuania. However, the strong growth has waned, with volumes mostly flat in the second half of 2023, followed by a marked, primarily seasonal, decline in January 2024.
- Car export volumes likely rose significantly in March 2024 due to seasonal factors but are expected to fall month-on-month through most of the remainder of 2024.
- The strong car export growth to the three above-mentioned countries does not appear sustainable. Total seaborne car exports fell in the first two months of 2024. Overall, in 2024, containerized car export growth will likely be moderate, and in early 2025, containerized export volumes are expected to drop. The Red Sea crisis represents a substantial risk given the importance of the UAE.

Cars, Containerized Exports, metric tons

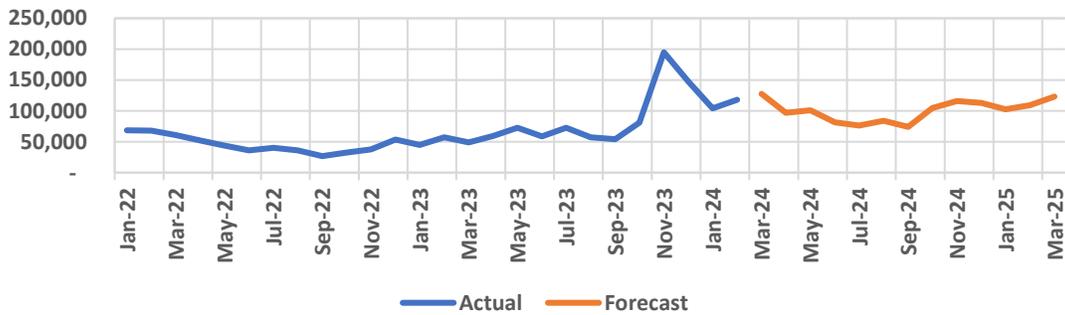




Soybean Oilcake

- Soybean oilcake containerized export volumes grew strongly between 2010 and 2019, but this growth was interrupted by the COVID pandemic. However, export growth resumed in the fourth quarter of 2022 and continued in 2023.
- Soybean oilcake containerized exports surged almost 2.5 times in November 2023 compared to October in large part due to an increase in containerization. However, between November 2023 and February 2024, exports declined 39% almost entirely because containerization fell close to historically normal levels.
- Containerized exports will likely trend downward month-on-month through September 2024, a typical low volume month, before an expected recovery caused largely by seasonal factors in the fourth quarter of 2024. Overall, in 2024, growth will likely be double-digit, but significantly slower than in 2023.

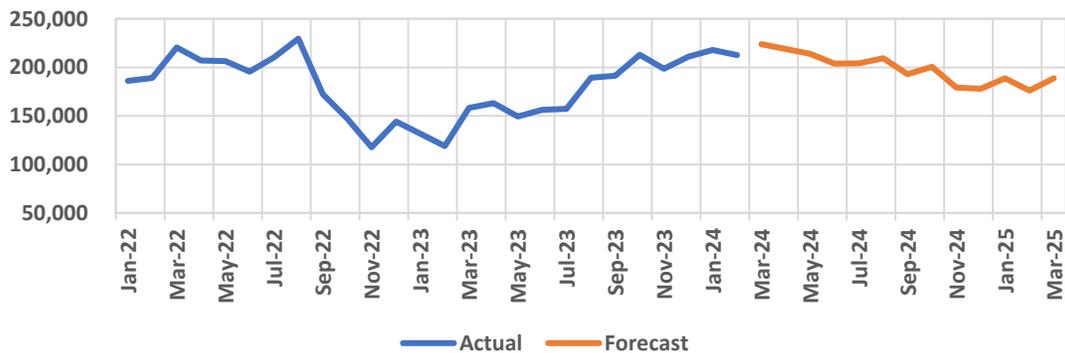
Soybean Oilcake, Containerized Exports, metric tons



Kraft Paper

- Kraft paper export volumes contracted sharply in the fall of 2022, and from January to August 2023, they were significantly lower than a year earlier. However, in the last three quarters of 2023, they were recovering on the month-on-month basis largely due to demand from China.
- Kraft paper exports have a long-term negative trend, and strong Chinese demand is unlikely to last. Therefore, volumes are expected to consistently fall on a month-on-month basis starting from April 2024. Nevertheless, for 2024 as a whole, kraft paper exports are projected to be significantly higher than in 2023.
- Rising shipments to Latin America may result in higher volumes than currently expected.

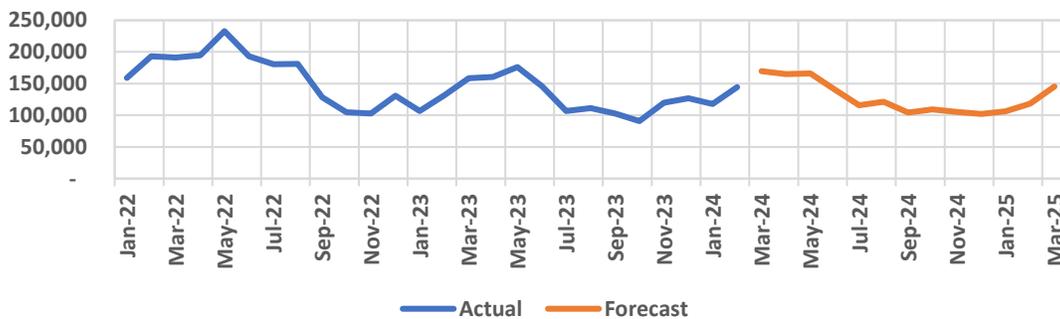
Kraft Paper, Containerized Exports, metric tons



Wood in the Rough

- Containerized exports of wood in the rough fell sharply from a peak in May to July 2023, but then stabilized and grew through February 2024. The growth so far in 2024 occurred due to rising containerization.
- Seaborne exports of this commodity fell between 2017 and 2023 and dropped again in the first two months of 2024. Seaborne export declines are expected to continue, likely accompanied by falling containerization, which is high by historical standards. Nevertheless, some growth is likely for 2024 as a whole, before a year-over drop in early 2025 despite month-on-month seasonal recovery.
- China accounts for over half of containerized exports, and its economic uncertainties may result in a more significant export decline than is currently projected. Exports to India, the second largest destination, significantly fell in January and February 2024 and are at risk of disruption due to the Red Sea crisis.

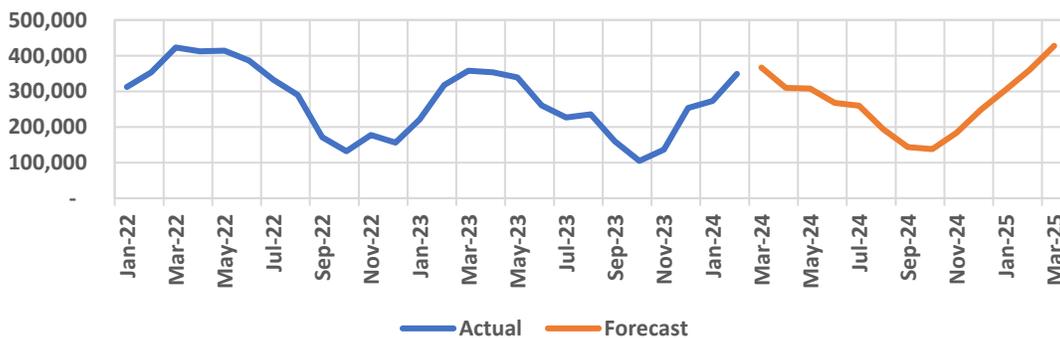
Wood in the Rough, Containerized Exports, metric tons



Cotton

- A rapid rise in cotton exports occurring after 2014 stalled during the pandemic. Cotton exports are highly seasonal, and in 2023, during the peak season of February to May, volumes were significantly less than in 2022. Exports to China (jointly with Hong Kong and Macau) accounted for a third of the 2023 decline.
- Due to seasonality, volumes are projected to fall by September 2024. Exports will likely increase slightly in 2024 as a whole. Demand from China will likely grow due to Chinese cotton production issues. Exports to Pakistan, the second main destination in 2023, plunged during the first two months of 2024. Demand from Pakistan may be subdued because of higher production there and vulnerability to Red Sea disruptions.

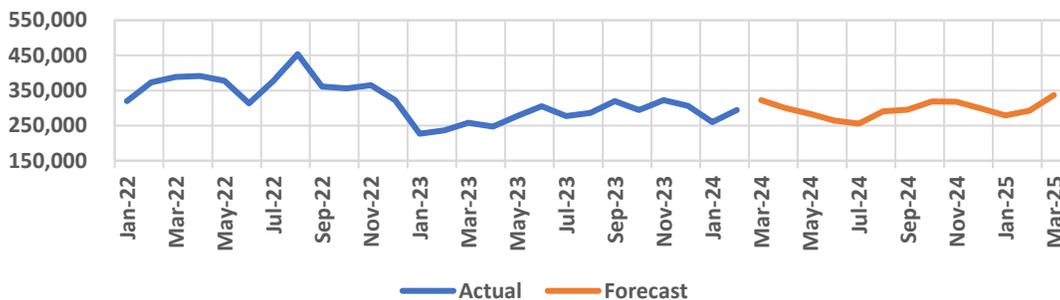
Cotton, Containerized Exports, metric tons



Forage

- After a sharp decline in December 2022 and January 2023, forage export volumes trended upwards during most of 2023. In January 2024, volumes fell in large part due to a collapse in exports to Saudia Arabia.
- Due to seasonal factors, volumes will likely fall by mid-2024, before recovering by November. For 2024 as a whole and early 2025, volumes will likely increase moderately.
- Historically, forage has been a growing export commodity. However, the increase in seaborne exports between 2010 and 2022 occurred exclusively due to exports to China, which also accounted for two-thirds of the fall in 2023. China’s economic problems may hamper the currently expected growth. The Middle East was a promising destination until the Red Sea crisis made this region risky. Potential for a recovery of the losses of exports to Japan and South Korea may be higher than expected.

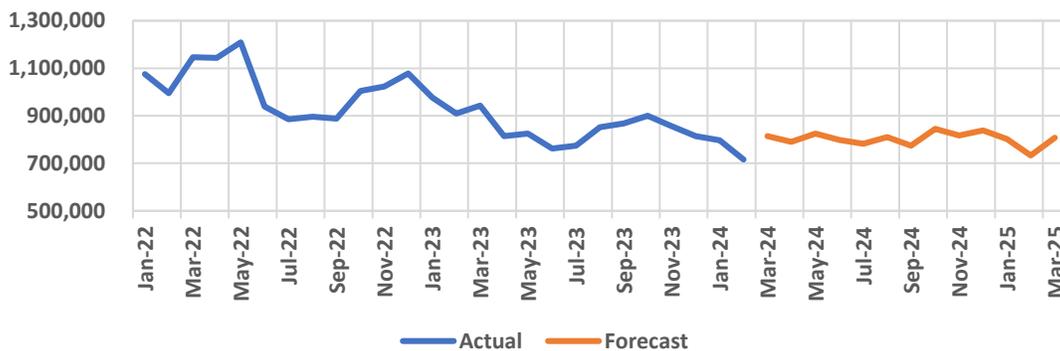
Forage, Containerized Exports, metric tons



Waste Paper

- Waste paper exports dropped sharply between the end of 2022 and June 2023. After some recovery between July and October 2023, volumes continued to fall, and between December 2023 and February 2024 they were 3% below the normal seasonal pattern.
- Volumes are expected to increase in the spring of 2024 from the February low. Overall, in 2024 they will likely decline, though not as much as in 2023. Malaysia has emerged as a promising destination in 2024.
- Policies in developing countries aimed at improving environmental protection and utilization of domestically produced waste represent a major risk to waste paper exports. Shipments to India, the main destination for U.S. waste paper exports in 2023, may be vulnerable to Red Sea route disruptions.

Waste Paper, Containerized Exports, metric tons



Appendix - Commodity Definitions

Commodity	HS Codes	Harmonized System Commodity Description
Imports		
Articles of Iron or Steel	73	Articles of iron or steel
Cars	8703	Motor cars and other motor vehicles principally designed for the transport of persons (other than those of heading 8702)
Construction and Lifting Machinery	8426-30	Construction and lifting machinery
Cyclic Hydrocarbons	2902	Cyclic hydrocarbons
Furniture	94	Furniture, bedding, mattresses, mattress supports, cushions and similar stuffed furnishings; lamps and lighting fittings, not elsewhere specified or included; illuminated sign illuminated nameplates and the like; prefabricated buildings
Lithium-Ion Batteries	850760	Lithium-ion batteries
Machinery, Except Construction and Lifting Machinery	84, excl. 8426-30	Machinery except construction and lifting machinery
Photosensitive Semiconductor Devices	854140-49	Photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light-emitting diodes (LED)
Plastics	39	Plastics and articles thereof
Wood	44	Wood and articles of wood; wood charcoal
Toys, Games and Sports Equipment	95	Toys, games and sports equipment
Exports		
Cars	8703	Motor cars and other motor vehicles principally designed for the transport of persons (other than those of heading 8702), including station wagons and racing cars
Cotton	52	Cotton
Forage	1214	Rutabagas (swedes), mangolds, fodder roots, hay, alfalfa (lucerne), clover, sainfoin, forage kale, lupines, vetches and similar forage products, whether or not in the form of pellets
Kraft Paper	4804	Uncoated kraft paper and paperboard, in rolls or sheets, other than that of heading 4802 or 4803
Natural Sands	2505	Natural sands of all kinds, whether or not colored, other than metalbearing sands of chapter 26
Plastics in Primary Forms	3901-14	Plastics in primary forms
Soybean Oilcake	2304	Oilcake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of soybean oil.
Starch Manufacture Residues, Sugar Manufacture Waste, Etc.	2303	Residues of starch manufacture and similar residues, beet-pulp, bagasse and other waste of sugar manufacture, brewing or distilling dregs and waste, whether or not in the form of pellets
Waste Paper	4707	Recovered (waste and scrap) paper and paperboard
Wood in the Rough	4403	Wood in the rough, whether or not stripped of bark or sap-wood, or roughly squared