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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 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 March 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 January 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:
- Containerized imports trended upwards month-on-month between March and October 2023, but then declined during the remainder of the year mostly due to seasonal factors. In December 2023, imports increased year-over-year for the first time since October 2022, before falling again in January 2024.
- Following a boom during the COVID pandemic, imports started to decline in the summer of 2022, as stimulus impacts faded, monetary policy tightened, and retailers accumulated excessive inventories.
- In 2023, imports declined 11.9% from 2022, with furniture and wood accounting for almost a quarter of the total decline. However, the gap below the trend stabilized at 7%-8% in the summer of 2023 and then narrowed to 2% in January 2024 largely boosted by solar panel imports, as well as by recovery in wood, furniture and other imports.
- In 2024, a robust 6.7% increase is expected. Wood and furniture imports are projected to grow faster than total containerized imports partly because their gaps below long-term trends are especially large.

Exports:
- Containerized exports grew month-on-month from July through December 2023. They fell in January 2024, in large part due to seasonal factors. In November 2023 to January 2024 they were 2% above the normal seasonal level. These months were the first months with year-over-year increases since July 2021.
- However, in 2023 as a whole, annual containerized export volumes continued a declining trend. Volumes peaked in 2018 and have since fallen each year with no boost related to the COVID stimulus.
- In 2023, containerized export volumes fell 3.7%. A broad-based decline in waste paper exports to almost all major destinations was responsible for almost half of the total export contraction.
- After volumes fluctuated during the pandemic, plastics in primary forms has reemerged as the main commodity contributing to containerized export growth, as U.S. production benefited from access to relatively inexpensive hydrocarbon feedstocks.
- In 2024, exports are projected to post a moderate 2% increase. Exports of plastics in primary forms are likely to continue strong growth. Waste paper exports will likely fall significantly less than 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 is expected to loosen in 2024, as the Fed switches its focus from inflation to economic growth. However, persistent inflation could slow the Fed’s propensity to reduce interest rates. On the other hand, quickly easing 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 5% in January 2024 from 6% in December 2023.
- The U.S. labor market added 275 thousand jobs in February 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

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 they fell again in January 2024. Nevertheless, the residential investment outlook is favorable, given the announced 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.
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.
  - Iran will not be directly involved in military actions in the Middle East and will continue acting through its proxies.
  - 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. The Fed has already indicated that it would reduce the short-term interest rate (Federal Funds Rate) in 2024. This reduction would likely give economic growth a 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.
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 6.7% 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 January 2024, imports decreased 1% from a year earlier despite increasing month-on-month. This decline occurred largely because of relatively high volumes in January 2023.
- 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.

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 the Middle East and South Asia. Containerized imports from India fell in January 2024, the only month-on-month decline of the top eight import origins.
- 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.

One additional commodity for which containerized imports significantly declined in 2023 and January 2024 is toys, games, and sports equipment. This decline followed surging imports in 2020 and 2021.

### Containerized Imports

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Thousands of metric tons</th>
<th>Year-over-year growth rates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2022</td>
<td>2023</td>
</tr>
<tr>
<td>Total commodities</td>
<td>217,336</td>
<td>191,429</td>
</tr>
<tr>
<td><strong>Top growth commodities in 2023</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Photosensitive semiconductor devices</td>
<td>1,915</td>
<td>3,507</td>
</tr>
<tr>
<td>Cars</td>
<td>690</td>
<td>1,353</td>
</tr>
<tr>
<td>Cyclic hydrocarbons</td>
<td>280</td>
<td>689</td>
</tr>
<tr>
<td>Construction and lifting machinery</td>
<td>1,143</td>
<td>1,513</td>
</tr>
<tr>
<td>Lithium-ion batteries</td>
<td>617</td>
<td>828</td>
</tr>
<tr>
<td><strong>Major commodities with volume declines in 2023</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Articles of iron or steel</td>
<td>10,135</td>
<td>8,955</td>
</tr>
<tr>
<td>Plastics</td>
<td>14,178</td>
<td>12,801</td>
</tr>
<tr>
<td>Machinery, except construction and lifting</td>
<td>14,298</td>
<td>12,707</td>
</tr>
<tr>
<td>Furniture</td>
<td>14,868</td>
<td>12,177</td>
</tr>
<tr>
<td>Wood</td>
<td>10,348</td>
<td>7,159</td>
</tr>
<tr>
<td><strong>Commodity in spotlight</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toys, games, and sports equipment</td>
<td>5,142</td>
<td>4,387</td>
</tr>
</tbody>
</table>
Photosensitive Semiconductor Devices

Outlook:
- Strong 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:
- 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 January 2024, these imports fell to the lowest monthly level in more than a year, and Red Sea shipping disruptions may further jeopardize imports from that country.
- Political decisions between now and next June may have a major impact on solar panel tariffs and imports in positive or negative directions.

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**Containerized Imports, 2023Q4 = 100**

![Graph showing containerized imports from 2023Q4 to 2025Q1]

**Photosensitive Semiconductor Devices, Containerized Imports, metric tons**

![Graph showing photosensitive semiconductor devices containerized imports from Jan-22 to Mar-25]
Outlook:
- Through early 2025, containerized car imports are unlikely to return to the peak levels of May-June 2023. January is typically a month of sharp seasonal declines. Quarterly imports in 2024 will likely remain relatively low until a seasonal rebound in the fourth quarter. Overall, 2024 imports are projected to fall 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. Imports from South Korea contributed three quarters of this growth. However, monthly containerization rates have declined from a peak in March 2023 and will likely drop further in 2024.

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.
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.
- Compared to the fourth quarter of 2023, containerized imports of construction and lifting machinery will likely grow in the first half 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 appears to be waning. In November 2023 to January 2024, volumes were 1% 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 52% in January 2024 but remained below the peak rate of 54% reached in 2016. Continued rise in containerization rates could lead to higher containerized volumes than those projected.
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 may partly recover in the early months of 2024. However, barring a significant rise in containerization rates, this commodity will likely post a steep drop overall in 2024 with respect to the prior year. The beginning of 2025 may see a small year-over-year rise.

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 11% in January 2024, it is still high by historical standards – it was 5%, on average, 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. Japan has emerged as the main origin.

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 U.S. import volumes more than currently projected.

Containerized Imports, 2023Q4 = 100

Cyclic Hydrocarbons, Containerized Imports, metric tons

Actual | Forecast
Outlook:

- Lithium-ion battery imports may reach the exceptionally high levels of early 2023 at the beginning of 2024, but most likely this will occur in 2025. Volumes may fall due to seasonality during the second quarter of 2024.
- 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.

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 89% in January 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.
**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.
- Compared to the last quarter of 2023, imports of iron or steel articles are likely to grow faster than total containerized imports in the second quarter of 2024, before falling in the second half of the year.

**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 were marginally below the long-term trend in January 2024 and are likely to stay near the trend through the end of the first quarter of 2025.

**Key Risks:**
- China, India, and Taiwan accounted for almost two thirds of iron or steel articles containerized imports in 2023. Rising tensions with China and Red Sea transportation disruptions (for India) may suppress imports.
- 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.
Outlook:
- A seasonal recovery in machinery imports is likely to start in March and 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. Since July 2023, monthly volumes have been mostly above the normal seasonal pattern. In January 2024, imports posted the first year-over increase in more than a year.

Key Risks:
- Persistent inflation and a delayed relaxation of monetary policy could suppress investment in equipment and, therefore, demand for machinery.
- Rising competition with imports from Canada and Mexico (mostly overland) could dampen containerized imports. Mexico’s share of U.S. refrigerator and freezer imports increased from 30% in 2022 to 33% in 2023. Taps, valves, bearings, transmission shafts, gears, and gaskets are also among commodities with rising shares of imports from Canada and Mexico.

Containerized Imports, 2023Q4 = 100

Machinery, Containerized Imports, metric tons

Actual | Forecast
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. However, after a boom during the pandemic, plastics imports declined between May 2022 and February 2023. They then partly recovered and were mostly stable from April to December.
- Despite a significant year-over-year drop, plastics imports in 2023 remained above the pre-COVID trend, unlike many other commodities for which imports posted sharp year-over-year declines. In January 2024, plastics imports volumes were 15% above the trend. Volumes will likely remain above 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.
Outlook:
- Containerized wood import volumes will most likely fall in February 2024, a typical trough month. Import volumes are then likely to start recovering, peaking in July and August 2024.
- Year-over-year, containerized wood import volumes are expected to register double-digit growth in both 2024 and the first quarter of 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. Volumes below the pre-COVID trend narrowed from 33% in June 2023 to 18% in January 2024. The gap below the trend is expected to shrink to 10% by the end of the first quarter of 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 75% in January 2024. However, this containerization is 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.
Outlook:
- Year-over-year containerized furniture imports are expected to grow faster than total containerized imports in 2024 and the beginning of 2025.
- January is typically a seasonal peak. Volumes will likely drop by 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 16% in January 2024. Consumer spending on furniture has been close to its long-term trend, and imports are therefore likely to continue to increase toward their long-term trend. By the end of 2024, the gap below the trend is expected to shrink to 10%.

Key Risks:
- China accounts for almost half of U.S. containerized furniture imports. Rising tensions with China may dampen imports.
- 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.
- Rising competition with Mexico and Canada could lead to declines in containerized imports. The share of these countries’ imports value (almost exclusively overland) rose from 25% in 2022 to 30% in 2023.
- A shift to remote work could further dampen demand for office furniture and slow the recovery of furniture imports.

_Figure 1: Containerized Imports, 2023Q4 = 100_

_Figure 2: Furniture, Containerized Imports, metric tons_
Outlook:

- Containerized imports of toys, games and sports equipment are highly seasonal, with July through November the peak months. Volumes are, on average, almost 2.5 times higher in October than in March, the typical trough month.
- Volumes in the 2024 peak season will likely be higher in 2024 than in 2023. Overall, 2024 imports are expected to grow strongly compared to 2023.

Outlook Background:

- Containerized toys imports grew slower than total containerized imports between 2010 and 2019. Imports skyrocketed during the first two years of the COVID pandemic. In March 2021, the volume was more than double the long-term pre-COVID trend.
- Imports then plunged in 2022 and 2023 and the year-over-year decline continued in January 2024. Nevertheless, January imports were still 6% above the trend, with consumer spending on toys remaining strong. Although the import gap with the pre-COVID trend will likely narrow, it is expected to remain mostly positive in 2024.

Key Risks:

- China dominates U.S. containerized imports, with its share rising from 87% in 2022 to 88% in 2023. This concentration is risky, especially given China’s economic woes and the rising U.S.-China tensions.
- The share of imports from Mexico and Canada is small, but quickly rising. It was 4% in 2022, 5% in 2023, and 6% in January 2024. Since almost all toys imports from these two countries are overland, a significant shift from China to Mexico may result in containerized import volumes below currently projected volumes.
Containerized Exports

Outlook:
- Containerized export volumes in 2024 are projected to rise by March, the typical peak month, and trend downward through September 2024, one of the months with seasonally low volumes.
- Volumes fell 4% in 2023 but will likely grow 2% in 2024 and 1% year-over-year in January to March 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.
- A drop in waste paper exports to China accounted for a third of the total volume decline between 2018 and 2022. In 2023, a broad-based decline in waste paper exports accounted for almost half of the total containerized export volume contraction.
- Exports grew on a month-by-month basis beginning in July 2023, but fell in January 2024, mostly due to seasonal factors.

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, fell more than exports to the rest of the world in January 2024. Shipments to India may be at risk due to Red Sea route disruptions.
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.

### Containerized Exports

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Thousands of metric tons</th>
<th>Year-over-year growth rates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2022</td>
<td>2023</td>
</tr>
<tr>
<td>Total commodities</td>
<td>111,606</td>
<td>107,496</td>
</tr>
<tr>
<td>Top growth commodities in 2023</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plasctics in primary forms</td>
<td>13,161</td>
<td>16,302</td>
</tr>
<tr>
<td>Starch manufacture residues, sugar manufacture waste, etc.</td>
<td>3,670</td>
<td>4,829</td>
</tr>
<tr>
<td>Soybean oilcake</td>
<td>555</td>
<td>947</td>
</tr>
<tr>
<td>Natural sands</td>
<td>680</td>
<td>1,065</td>
</tr>
<tr>
<td>Cars</td>
<td>1,405</td>
<td>1,672</td>
</tr>
<tr>
<td>Major commodities with volume declines in 2023</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kraft paper</td>
<td>2,226</td>
<td>2,038</td>
</tr>
<tr>
<td>Wood in the rough</td>
<td>1,992</td>
<td>1,538</td>
</tr>
<tr>
<td>Cotton</td>
<td>3,560</td>
<td>2,966</td>
</tr>
<tr>
<td>Forage</td>
<td>4,398</td>
<td>3,354</td>
</tr>
<tr>
<td>Waste paper</td>
<td>12,280</td>
<td>10,294</td>
</tr>
</tbody>
</table>
Plastics in primary forms has reemerged as the main contributor 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 fell in January 2024, may be at risk of disruption due to the Red Sea crisis.

Starch Manufacturing Residues, Sugar Manufacturing Waste, Etc.

The long-term seaborne export trend has been negative. However, in 2023, containerized exports of this commodity posted double-digit growth largely due to higher containerization of exports to Vietnam, Indonesia, and Turkey. Containerized exports expanded again year-over-year in January 2024 due to higher containerization rates.

Summer is typically the peak export season. The long-term seaborne export decline will likely continue in 2024, which is expected to dampen containerized export growth overall in 2024 and lead to a year-over-year containerized volume drop in 2025.

A return to historically normal containerization may result in lower volumes than currently projected.
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 in January 2024. An increase in total exports in December was due to an extraordinarily high, though probably one-time, rise exports to Japan. Volumes may grow through May 2024 and then again in early 2025 but will likely stay much below the exceptionally high levels of mid-2023.

Exports of natural sands have been extremely volatile and concentrated in country destinations. Two countries – China and Japan – accounted for almost 90% of the 2023 volumes exported in containers.

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 will likely rise by March 2024 due to seasonal factors before falling 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. Full year containerized car export growth in 2024 will likely be sluggish, and volumes are expected to fall year-over-year in 2025. The Red Sea crisis represents a substantial risk given the importance of the UAE.
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 January 2024, exports declined 47% 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.

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, since March 2023 they have been 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 Central America may result in higher volumes than currently expected.
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 the end of 2023.
- Seaborne exports of this commodity fell between 2017 and 2023 and dropped again in January 2024. Seaborne export declines are expected to continue, likely accompanied by falling containerization, which is high by historical standards and increased in January. This will likely result in year-over-year drops in containerized export volumes in 2024 and early 2025, despite month-on-month seasonal recoveries in the first quarter of both years.
- China accounts for over half of wood in the rough containerized exports, and its economic woes may result in a more significant wood export decline than is currently projected. Exports to India, the second largest destination, significantly declined in January and are at risk of disruption due to the Red Sea crisis.

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 rise through mid-spring 2024. Exports will likely fall in 2024 as a whole, though not as much as in 2023. Falling demand from China will likely be mostly offset by exports to other Asian countries, such as Pakistan and Bangladesh, although such exports may be vulnerable to Red Sea route disruptions. A significant recovery is expected for late 2024 and early 2025.
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, volumes will likely be flat, and a modest year-over-year increase is projected for early 2025.
- 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 recovery. The Middle East was a promising destination until the Red Sea crisis made this region risky.

Waste Paper

- Waste paper exports dropped sharply between the end of 2022 and June 2023. Despite some recovery between July and October 2023, volumes were 3% below the normal seasonal pattern between November 2023 and January 2024.
- Overall volumes in 2024 will likely decline, though not as much as in 2023. A marginal year-over-year increase is expected for the beginning of 2025.
- 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.
## Appendix - Commodity Definitions

<table>
<thead>
<tr>
<th>Commodity</th>
<th>HS Codes</th>
<th>Harmonized System Commodity Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Imports</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Articles of Iron or Steel</td>
<td>73</td>
<td>Articles of iron or steel</td>
</tr>
<tr>
<td>Cars</td>
<td>8703</td>
<td>Motor cars and other motor vehicles principally designed for the transport of persons (other than those of heading 8702)</td>
</tr>
<tr>
<td>Construction and Lifting Machinery</td>
<td>8426-30</td>
<td>Construction and lifting machinery</td>
</tr>
<tr>
<td>Cyclic Hydrocarbons</td>
<td>2902</td>
<td>Cyclic hydrocarbons</td>
</tr>
<tr>
<td>Furniture</td>
<td>94</td>
<td>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</td>
</tr>
<tr>
<td>Lithium-Ion Batteries</td>
<td>850760</td>
<td>Lithium-ion batteries</td>
</tr>
<tr>
<td>Machinery, Except Construction and Lifting Machinery</td>
<td>84, excl. 8426-30</td>
<td>Machinery except construction and lifting machinery</td>
</tr>
<tr>
<td>Photosensitive Semiconductor Devices</td>
<td>854140-49</td>
<td>Photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light-emitting diodes (LED)</td>
</tr>
<tr>
<td>Plastics</td>
<td>39</td>
<td>Plastics and articles thereof</td>
</tr>
<tr>
<td>Wood</td>
<td>44</td>
<td>Wood and articles of wood; wood charcoal</td>
</tr>
<tr>
<td>Toys, Games and Sports Equipment</td>
<td>95</td>
<td>Toys, games and sports equipment</td>
</tr>
<tr>
<td><strong>Exports</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cars</td>
<td>8703</td>
<td>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</td>
</tr>
<tr>
<td>Cotton</td>
<td>52</td>
<td>Cotton</td>
</tr>
<tr>
<td>Forage</td>
<td>1214</td>
<td>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</td>
</tr>
<tr>
<td>Kraft Paper</td>
<td>4804</td>
<td>Uncoated kraft paper and paperboard, in rolls or sheets, other than that of heading 4802 or 4803</td>
</tr>
<tr>
<td>Natural Sands</td>
<td>2505</td>
<td>Natural sands of all kinds, whether or not colored, other than metalbearing sands of chapter 26</td>
</tr>
<tr>
<td>Plastics in Primary Forms</td>
<td>3901-14</td>
<td>Plastics in primary forms</td>
</tr>
<tr>
<td>Soybean Oilcake</td>
<td>2304</td>
<td>Oilcake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of soybean oil.</td>
</tr>
<tr>
<td>Starch Manufacture Residues, Sugar Manufacture Waste, Etc.</td>
<td>2303</td>
<td>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</td>
</tr>
<tr>
<td>Waste Paper</td>
<td>4707</td>
<td>Recovered (waste and scrap) paper and paperboard</td>
</tr>
<tr>
<td>Wood in the Rough</td>
<td>4403</td>
<td>Wood in the rough, whether or not stripped of bark or sapwood, or roughly squared</td>
</tr>
</tbody>
</table>