

## Shipping - Global

## Shipping &amp; supply chain high frequency tracker #57

Industry Overview

## Tracking the high frequency shipping data

This report contains our favorite charts to track shipping & supply chains. Red Sea diversions have increased – container ships are still diverting with rising diversion from car carrier and bulkers given rising insurance costs. Container disruptions have probably peaked with our checks suggesting risks to the downside to spot rates after CNY. VLCC rates are lagging mid-sized tankers but should remain profitable ahead. Bulk rates face seasonal headwinds now, but watch a stronger than seasonal 2Q bounce on Red Sea and Panama Canal disruptions.

## Red Sea: Diversions rising for tanker, bulker &amp; car carrier

Red Sea vessel transits have declined to less than a third of 1H December with rising insurance costs. Container and car carrier are down to less than 10% of 1H December and bulkers have declined to ~60% of 1H December levels while crude tankers are less disrupted at 85% of 1H Dec levels in the past week. Our base case has moved to Red Sea diversions persisting until mid to late 2024.

## Container: Spot rates appear to be peaking

Container average spot rates have doubled since 15 December but spot rate momentum appears to be faltering with our checks suggesting some softening from extreme levels loom after Chinese New Year (CNY). Our forecasts assume +50% QoQ average rates in 1Q24 before a gradual decline through 2024 (-10-15% QoQ). For more see: [Shipping - Asia-Pacific: COSCO up to Buy on Red Sea disruptions](#).

## Bulkers: Bigger than normal post CNY bounce?

Typical bulk seasonal headwinds are set to weigh on cyclone weather and CNY holidays. But watch scope for a better than normal post-CNY bounce with Red Sea disruptions set to have a delayed impact on vessel availability, ongoing diversions away from the Panama Canal and the seasonal ramp in grain exports.

## Tanker: Mid-sized tankers could get another tailwind

Stricter Russian sanctions enforcement could shift mid-sized tanker demand out of the illicit trades, while there are also risks that crude tanker Red Sea diversions build following the recent product tanker attack which could boost tonne mile demand for mid-sized crude tankers. VLCC forward curves suggest rates slightly above P&L breakeven ahead while 6-month time charter rates suggest average US\$45k/day rates ahead.

## Car carrier: Brace for lost export capacity + higher rates

Red Sea car carrier diversions have ramped in recent weeks which will weigh on overall supply with ~20% of deep sea car carrier cargo via the Red Sea. Watch for disruptions to export capacity on Europe trades given the longer distance sailings, while car carrier operators are focused on imposing new surcharges to pass through higher costs.

29 January 2024

Equity  
Global  
Shipping

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## Abbreviations

CNY: Chinese New Year

VLCC: Very Large Crude Carrier

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**Refer to important disclosures on page 27 to 29.**

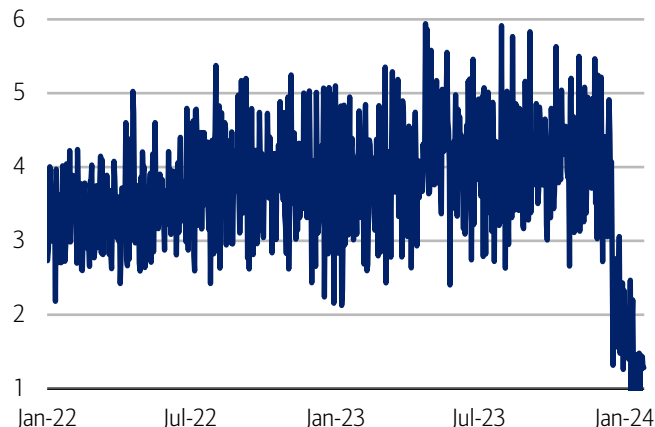
12651974

Timestamp: 29 January 2024 06:00AM EST

# Red Sea disruptions

## Exhibit 1: Red Sea weekly total vessel arrivals (mn GT), 2022-24

Containers and car carriers are now 10% and 5% of 1H of December level

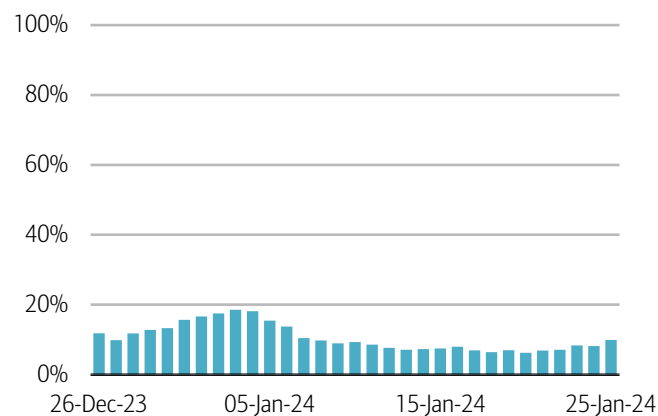


Source: Clarksons

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## Exhibit 3: Container ship Red Sea arrivals vs 1H Dec levels (%), 7D MA

Container ship arrivals are less than 10% of 1H of December level

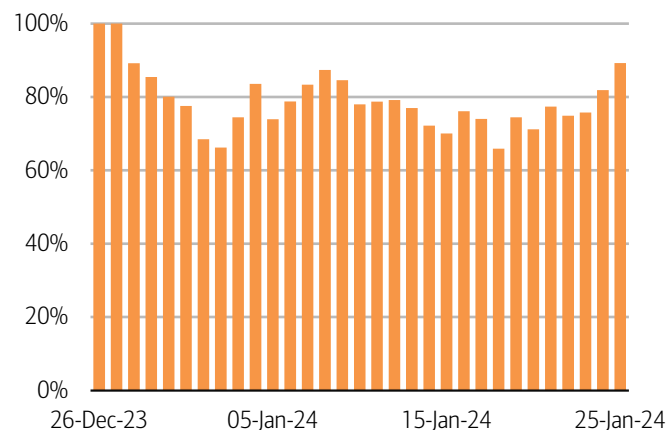


Source: Clarksons

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## Exhibit 5: Crude tanker Red Sea arrivals vs 1H Dec levels (%), 7D MA

Tankers bouncing around 70-80% of 1H of December level in January

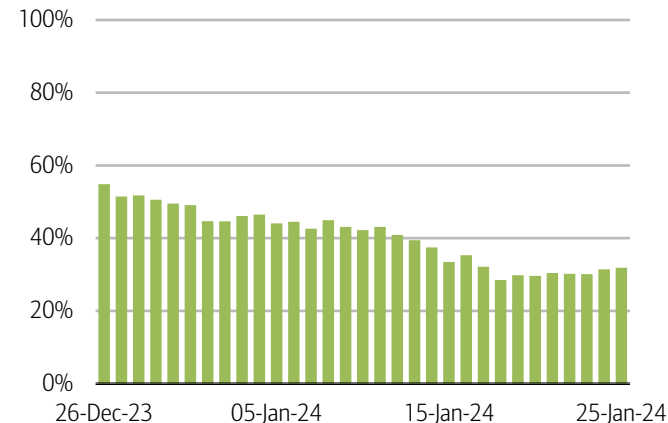


Source: Clarksons

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## Exhibit 2: Red Sea total vessel arrivals vs 1H Dec levels (%), 7D MA

Overall arrivals are less than 1/3rd of 1H of December level in late January

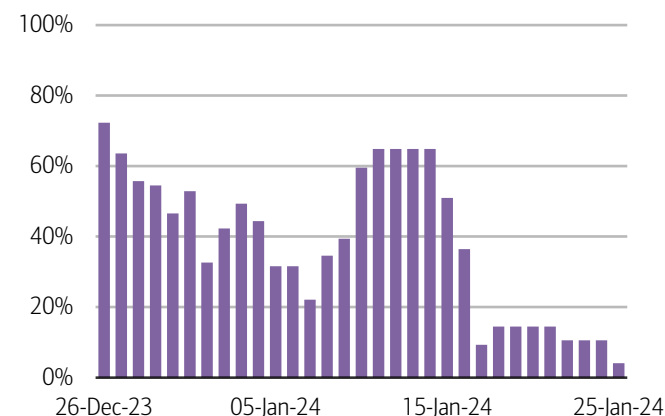


Source: Clarksons

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## Exhibit 4: Car carrier Red Sea arrivals vs 1H Dec levels (%), 7D MA

Car carrier arrivals now less than 5% of 1H of December level

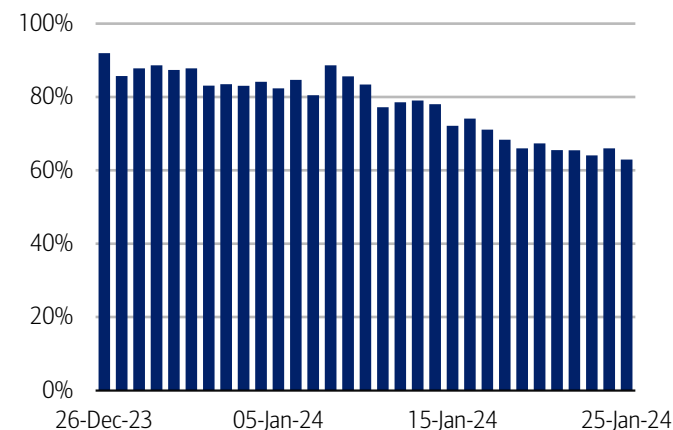


Source: Clarksons

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## Exhibit 6: Bulk Red Sea arrivals vs 1H Dec levels (%), 7D MA

Bulk ships arrival declining and now close to 60% of 1H of December level



Source: Clarksons

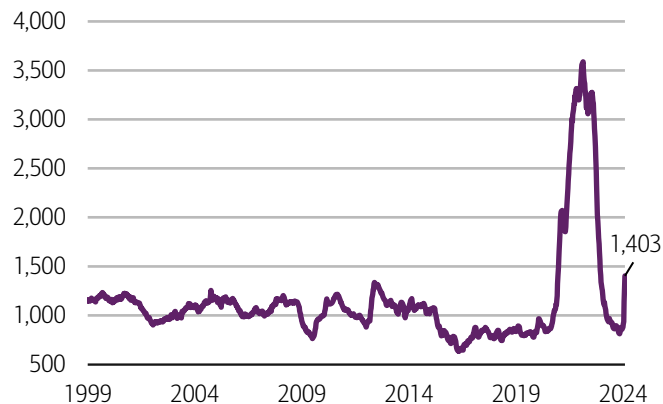
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# Container shipping

## Blended freight rates

**Exhibit 7: China Containerized Freight Index (CCFI), 1999-2024**

WoW: +9% MoM: +54% YoY: +26% vs 2019: +59%



Source: Shanghai Shipping Exchange

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**Exhibit 8: CCFI quarterly average, 2023-24**

CCFI trending up both YoY and QoQ in 1Q24

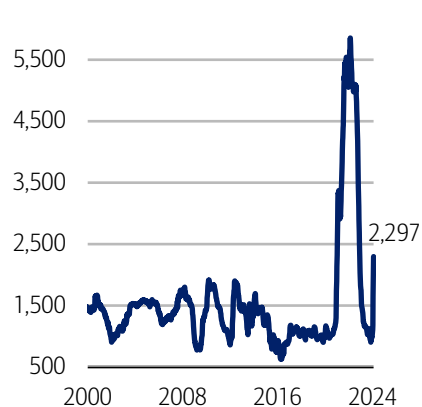
CCFI	1Q23	2Q23	3Q23	4Q23	1Q24
CCFI	1,087	938	876	854	1,192
CCFI Europe	1,411	1,154	1,059	985	1,791
CCFI USWC	789	707	733	725	822
CCFI USEC	1,161	886	870	839	1,025
<b>% YoY</b>					
CCFI	-68%	-70%	-70%	-47%	10%
CCFI Europe	-74%	-77%	-78%	-61%	27%
CCFI USWC	-70%	-72%	-69%	-33%	4%
CCFI USEC	-57%	-68%	-69%	-52%	-12%
<b>% QoQ</b>					
CCFI	-33%	-14%	-7%	-2.5%	39.6%
CCFI Europe	-44%	-18%	-8%	-7%	82%
CCFI USWC	-27%	-10%	4%	-1%	13%
CCFI USEC	-34%	-24%	-2%	-4%	22%

Source: Shanghai Shipping Exchange

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**Exhibit 9: CCFI Europe, 2000-24**

MoM: +107% YoY: +57% vs 2019: +101%

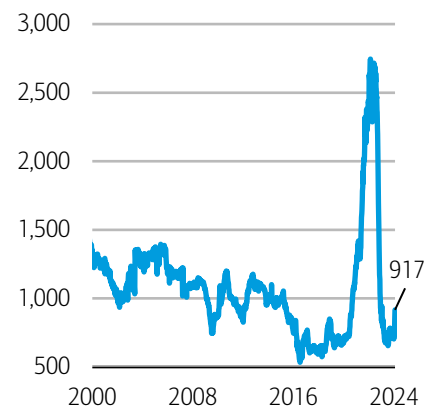


Source: Shanghai Shipping Exchange

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**Exhibit 10: CCFI US West Coast, 2000-24**

MoM: +24% YoY: +15% vs 2019: +28%

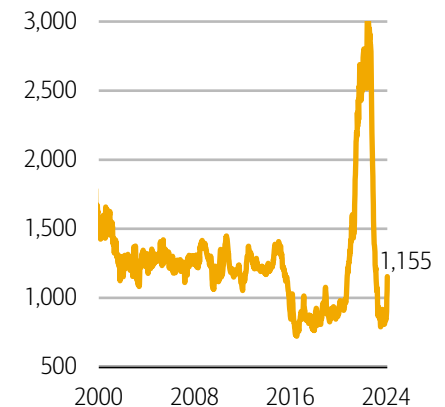


Source: Shanghai Shipping Exchange

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**Exhibit 11: CCFI US East Coast, 2000-24**

MoM: +33% YoY: -4% vs 2019: +28%

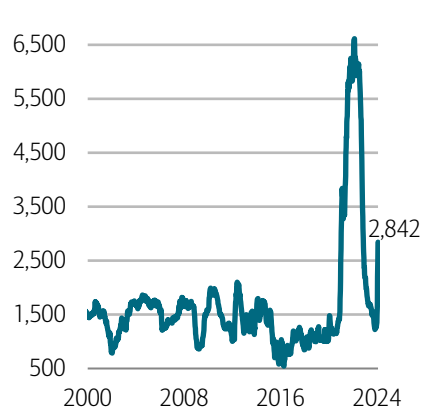


Source: Shanghai Shipping Exchange

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**Exhibit 12: CCFI Mediterranean, 2000-24**

MoM: +90% YoY: +44% vs 2019: +138%

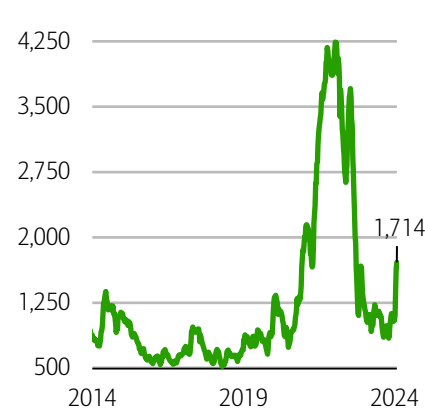


Source: Shanghai Shipping Exchange

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**Exhibit 13: CCFI Middle East, 2014-24**

MoM: +63% YoY: +67% vs 2019: +97%

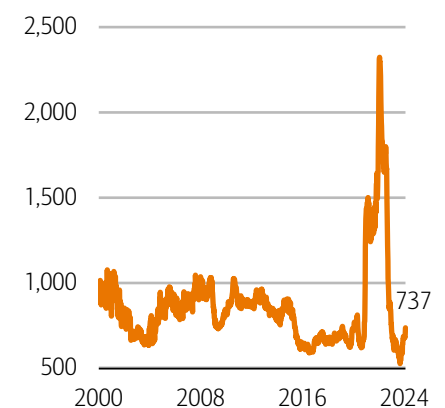


Source: Shanghai Shipping Exchange

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**Exhibit 14: CCFI Singapore, 2000-24**

MoM: +8% YoY: +12% vs 2019: +1%



Source: Shanghai Shipping Exchange

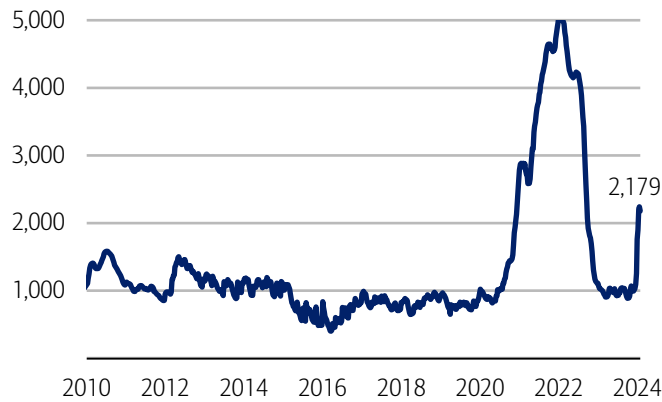
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## Spot freight rates

### Exhibit 15: Shanghai Containerized Freight Index (SCFI), 2010-24

WoW: -3% MoM: +24% YoY: +116% vs 2019: +130%



Source: Shanghai Shipping Exchange

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### Exhibit 16: SCFI quarterly average, 2023-24

SCFI significantly up both QoQ and YoY in 1Q24

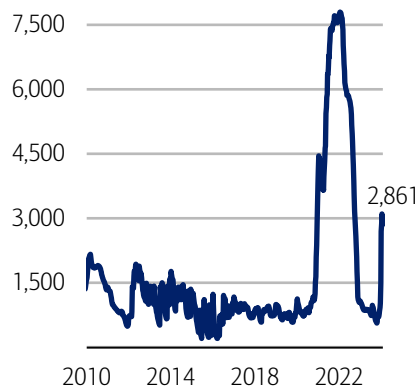
SCFI	1Q23	2Q23	3Q23	4Q23	1Q24
SCFI	969	983	986	1,089	2,130
SCFI Europe	926	848	776	989	2,966
SCFI USWC	1,265	1,419	1,884	1,851	3,870
SCFI USEC	2,438	2,366	2,768	2,540	5,605
<b>% YoY</b>					
SCFI	-80%	-77%	-70%	-21%	120%
SCFI Europe	-88%	-86%	-83%	-34%	220%
SCFI USWC	-84%	-82%	-64%	14%	206%
SCFI USEC	-78%	-77%	-68%	-38%	130%
<b>% QoQ</b>					
SCFI	-30%	2%	0%	10%	96%
SCFI Europe	-38%	-8%	-9%	28%	200%
SCFI USWC	-22%	12%	33%	-2%	109%
SCFI USEC	-41%	-3%	17%	-8%	121%

Source: Shanghai Shipping Exchange

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### Exhibit 17: SCFI Europe, 2010-24 (\$/TEU)

MoM: +6% YoY: +198% vs 2019: +198%

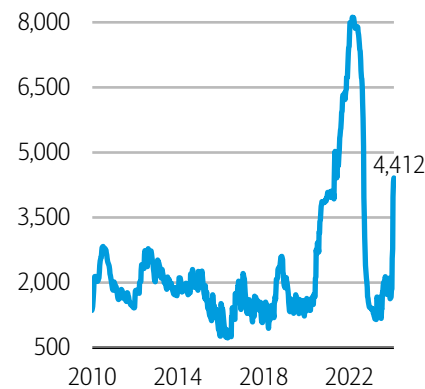


Source: Shanghai Shipping Exchange. \$=USD

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### Exhibit 18: SCFI USWC, 2010-24 (\$/FEU)

MoM: +73% YoY: +224% vs 2019: +116%

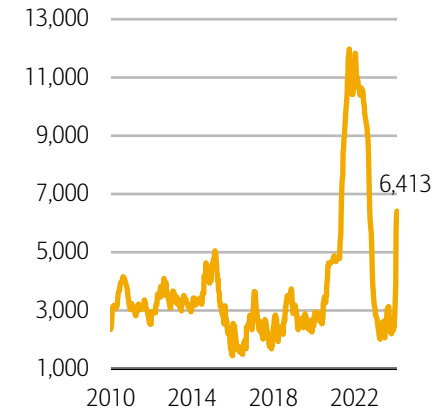


Source: Shanghai Shipping Exchange. \$=USD

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### Exhibit 19: SCFI USEC, 2010-24 (\$/FEU)

MoM: +80% YoY: +137% vs 2019: +104%

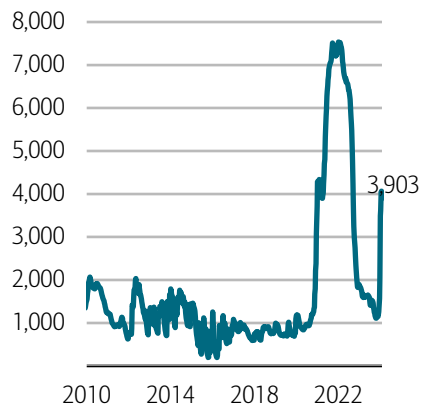


Source: Shanghai Shipping Exchange. \$=USD

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### Exhibit 20: SCFI Med, 2010-24 (\$/TEU)

MoM: +12% YoY: +123% vs 2019: +308%

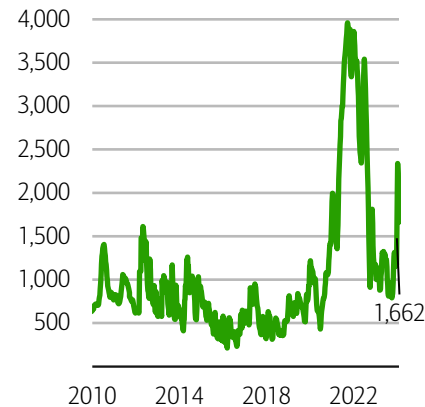


Source: Shanghai Shipping Exchange. \$=USD

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### Exhibit 21: SCFI Middle East, 2010-24 (\$/TEU)

MoM: -19% YoY: +60% vs 2019: +126%

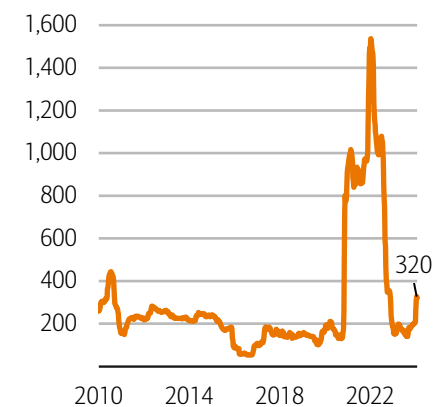


Source: Shanghai Shipping Exchange. \$=USD

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### Exhibit 22: SCFI Singapore, 2010-24 (\$/TEU)

MoM: +54% YoY: +113% vs 2019: +105%



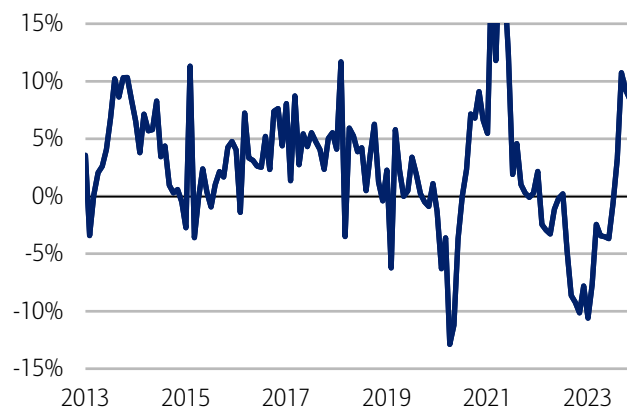
Source: Shanghai Shipping Exchange. \$=USD

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## World trade trends

### Exhibit 23: Global container volume growth (YoY %), 2013-23

World container trade up just below 10% YoY in past two months

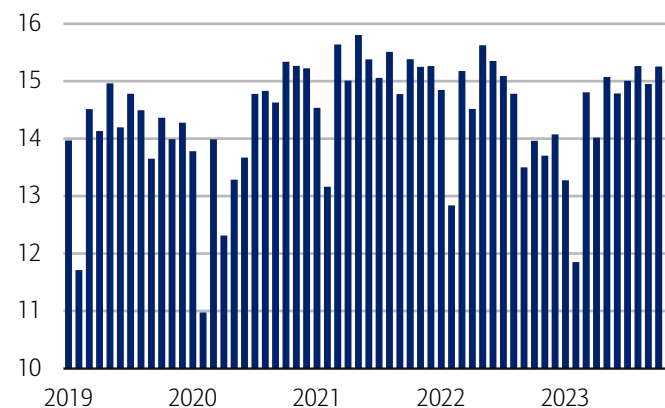


Source: Bloomberg

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### Exhibit 24: Global monthly container volumes (mn TEU), 2019-23

World trade has been firm since spring 2023

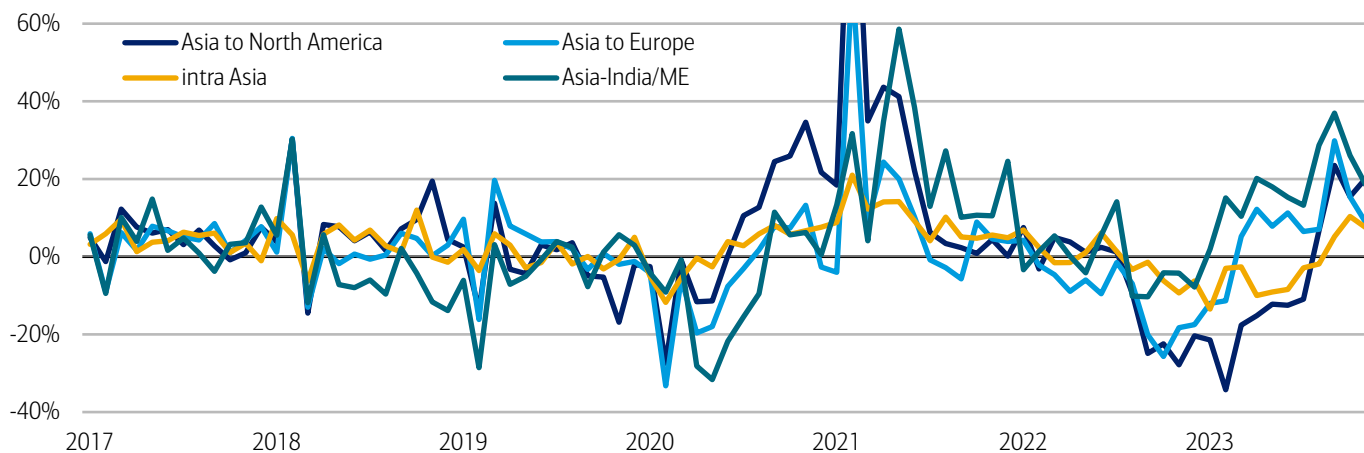


Source: Bloomberg

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### Exhibit 25: Container volumes by route (% YoY), 2017-23

Key trade lane volumes still seeing positive YoY growth



Source: Bloomberg

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## US high frequency container volumes

### Exhibit 26: US weekly container imports 4w MA (% YoY), 2018-23

US weekly imports trending up and moved back to positive since November

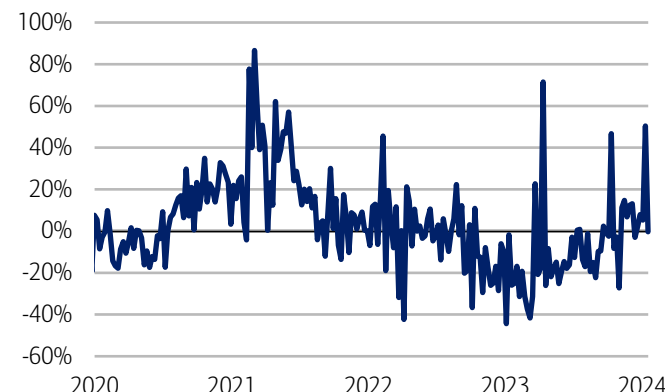


Source: Bloomberg

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### Exhibit 27: US weekly container imports (% YoY), 2020-23

US weekly imports remain positive YoY since November

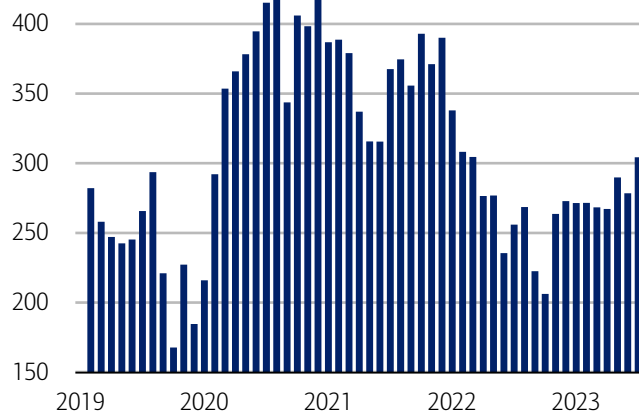


Source: Bloomberg

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**Exhibit 28: US furniture monthly imports (TEU), 2019-23**

US furniture imports slightly below 304k TEU /month

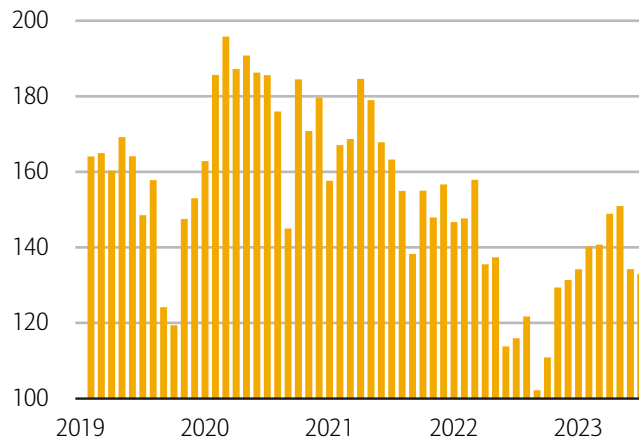


Source: Bloomberg

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**Exhibit 30: US electronic monthly imports (TEU), 2019-23**

US electronics imports trending around 133k TEU /month

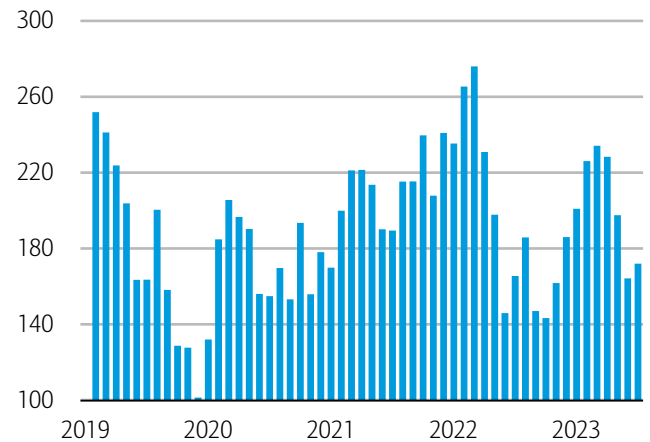


Source: Bloomberg

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**Exhibit 29: US apparel & footwear monthly imports (TEU), 2019-23**

US apparel &amp; footwear imports just below 172k TEU / month

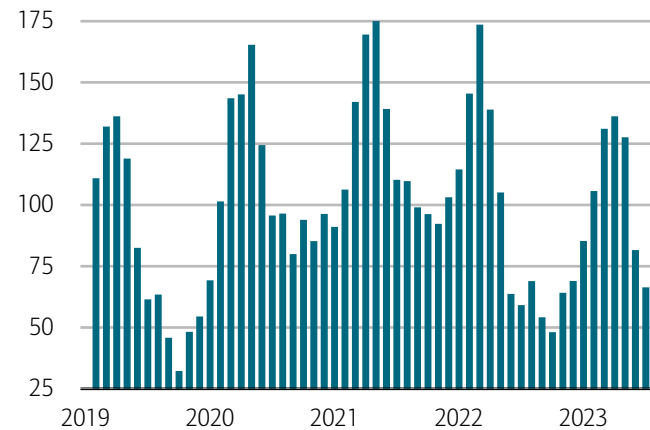


Source: Bloomberg

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**Exhibit 31: US toy & leisure monthly imports (TEU), 2019-23**

US toy &amp; leisure imports slightly above 66k TEU



Source: Bloomberg

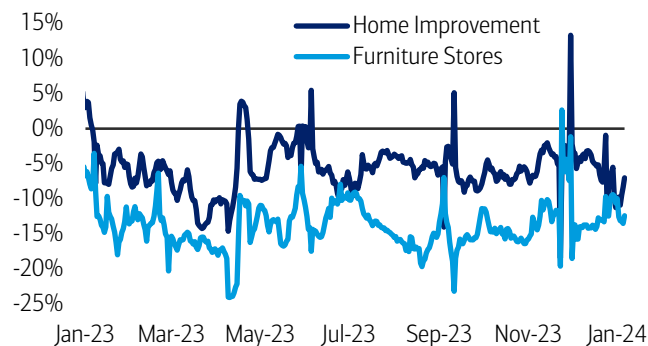
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**US consumer reads**

Please see the latest [BofA on USA](#) report for methodology, limitations, and disclaimers related to BAC aggregated credit and debit card data.

**Exhibit 32: Spending per HH at home improvement and furniture stores, based on BAC aggregated card data (y/y % change of the 7-day ma of spending levels)**

Furniture and home improvement spending growth remained negative on a y/y basis in the week ending Jan 6

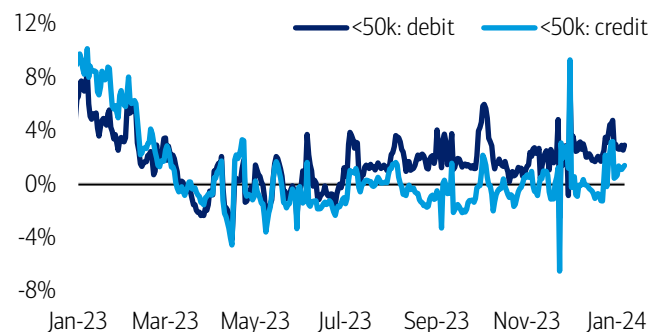


Source: BAC internal data

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**Exhibit 34: Total credit card and total debit card spending per HH for lower-income group (y/y % change of the 7-day ma of spending levels)**

Lower-income debit card spending growth significantly outpaced credit card spending growth on a y/y basis in the week ending Jan 6



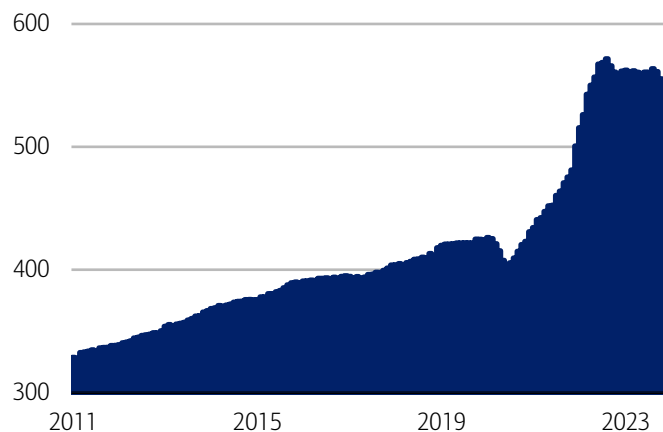
Source: BAC internal data

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## US retail inventory levels

**Exhibit 36: US retail (ex-auto) inventories (US\$bn), 2011-23**

Retail inventories have been stable, still well above pre-COVID levels

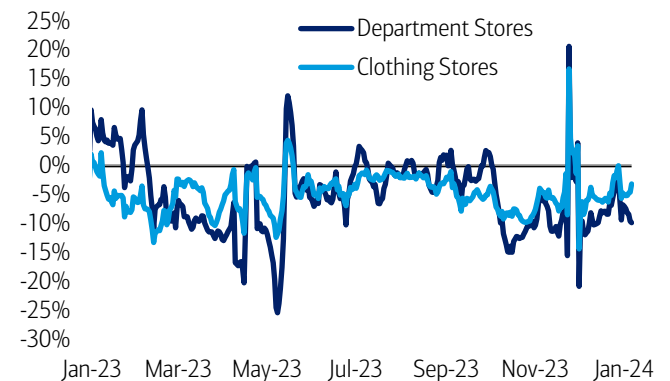


Source: Bloomberg

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**Exhibit 33: Spending per HH at department and clothing stores, based on BAC aggregated card data (y/y % change of the 7-day ma of spending levels)**

Y/y clothing spending growth was largely negative in 2023



Source: BAC internal data

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**Exhibit 35: Aggregated monthly card spending per HH by major category (%m/m, SA)**

Card spending was weak in furniture and clothing in December

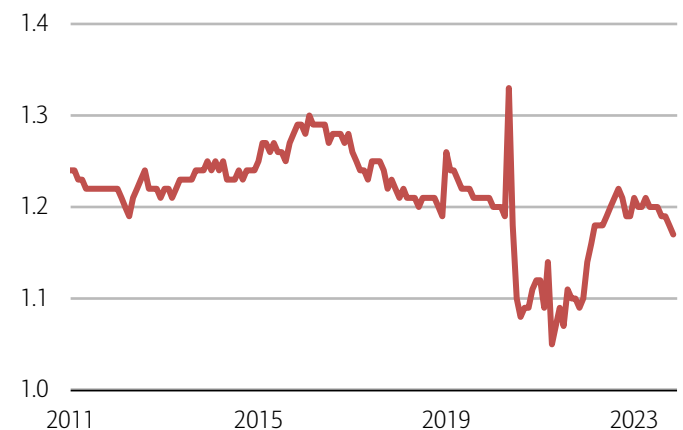
	Dec-23	Nov-23	Oct-23	Sep-23	Aug-23	Jul-23
Gas	1.0%	-3.9%	-3.1%	2.8%	5.9%	1.4%
Furniture	-4.3%	3.1%	-1.3%	-1.2%	-2.3%	-2.7%
Home improvement	-0.9%	-0.2%	0.5%	-1.3%	-1.0%	-0.1%
Clothing	-2.0%	2.4%	-1.7%	-1.3%	-1.8%	0.8%
Grocery	-0.1%	-0.4%	0.9%	-0.2%	0.1%	-0.3%
General Merchandise	0.2%	0.1%	0.3%	0.1%	-0.4%	0.8%
Department Store	-0.9%	1.3%	-1.3%	0.1%	-2.9%	0.3%
Restaurants	0.4%	0.4%	0.5%	0.1%	-0.4%	0.5%
Lodging	0.6%	0.0%	0.0%	-0.2%	-0.7%	-1.6%
Airlines	0.8%	2.9%	-2.9%	-1.1%	-1.3%	1.1%
Total online retail (card not present)	0.1%	-0.2%	-0.3%	0.9%	-0.6%	1.6%

Source: BAC internal data. Card not present is largely online but could include purchases made over the phone.

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**Exhibit 37: US retail (ex-auto) inventory to sales ratio, 2011-23**

Retail adjusted inventories to sales just below 1.2x back to historical average

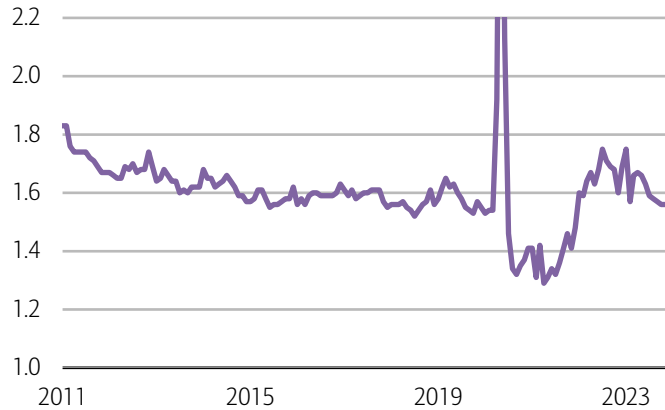


Source: Bloomberg

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**Exhibit 38: Furniture – adjusted inventory to sales, 2011-23**

Furniture inventory-to-sale closer to historical range

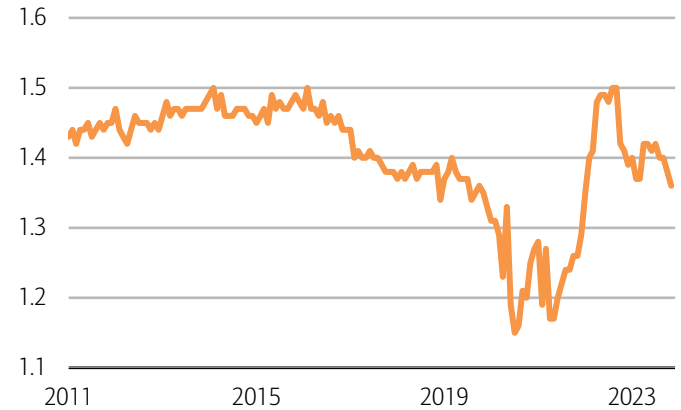


Source: Bloomberg

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**Exhibit 39: General merchandise – adjusted inventory to sales, 2011-23**

General merchandise inventory-to-sales returned to pre-COVID level

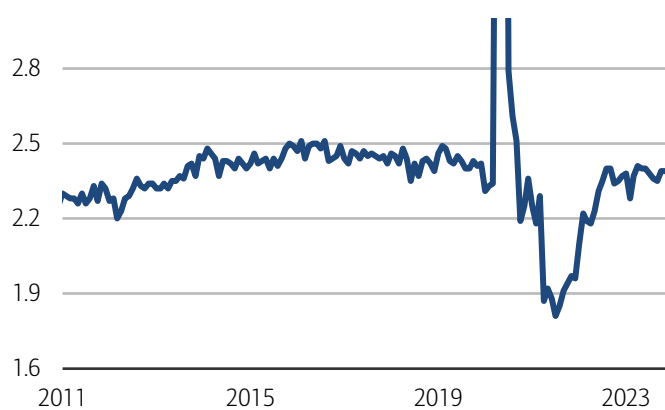


Source: Bloomberg

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**Exhibit 40: Clothing – adjusted inventory to sales, 2011-23**

Clothing inventory to sales returning to historical range

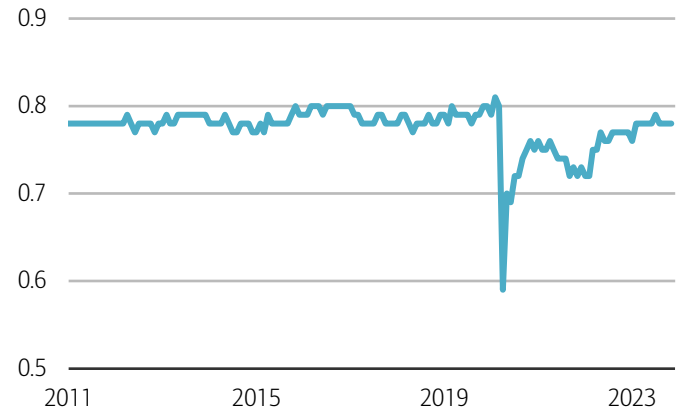


Source: Bloomberg

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**Exhibit 41: Food & Beverage – adjusted inventory to sales, 2011-23**

Food &amp; beverage inventory to sales still slightly below historical level



Source: Bloomberg

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**Idling & port congestion****Exhibit 42: Global port congestion - % of fleet, 2021-24**

Port congestion came down and now around 5.5%

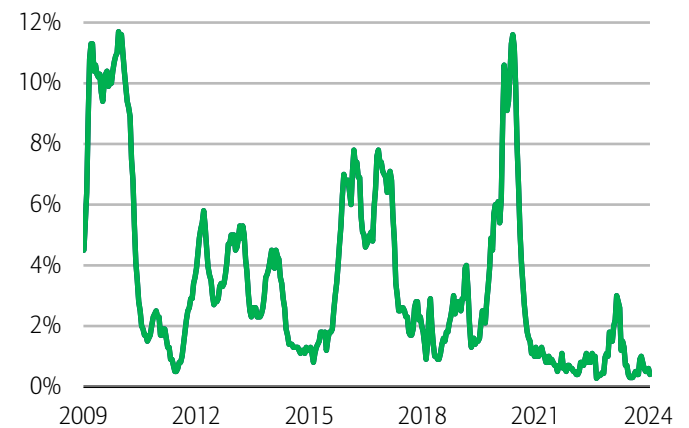


Source: Linerlytica

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**Exhibit 43: Global container vessel idling rate (% of fleet), 2009-24**

Idling rate well below 1% of the fleet



Source: Linerlytica, Alphaliner

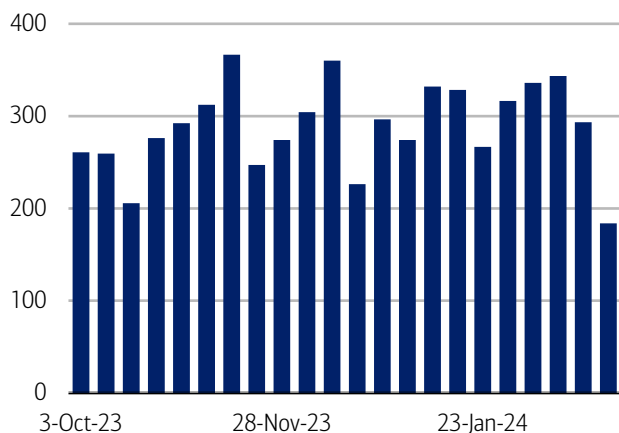
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## Weekly sailing capacity on key routes

**Exhibit 44: Weekly vessel capacity, Asia to North EU (k TEU), 2023-24**

Weekly capacity trending down

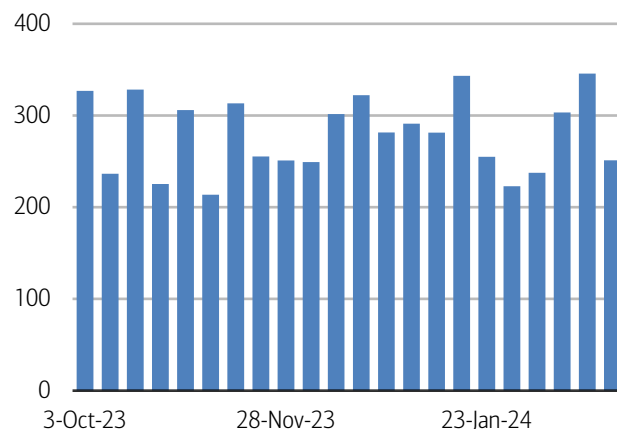


Source: Linerlytica

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**Exhibit 45: Weekly vessel capacity, Asia to USWC (k TEU), 2023-24**

Capacity remains weak in January



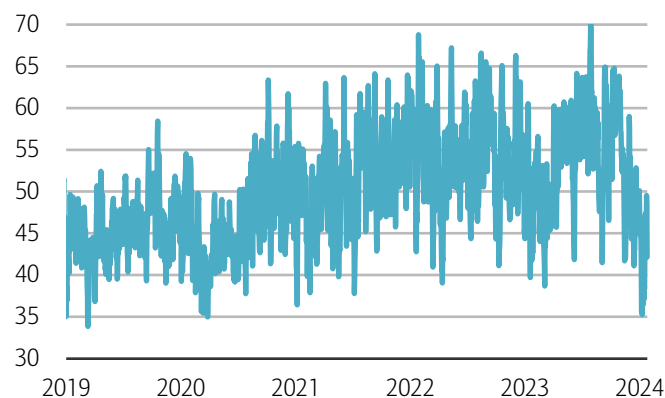
Source: Linerlytica

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## Panama Canal congestion

**Exhibit 46: Panama Canal containership transit 7day MA (k TEU/day)**

Transit slowly coming down in November and currently just above 40k

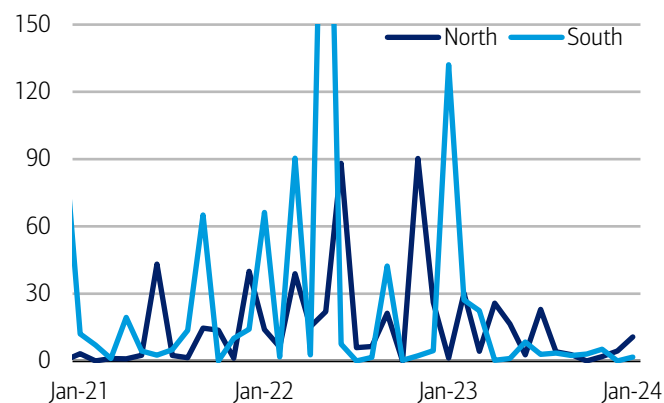


Source: Clarksons

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**Exhibit 47: Panama Canal unscheduled container waiting time (hours)**

No wait for unscheduled and scheduled ships



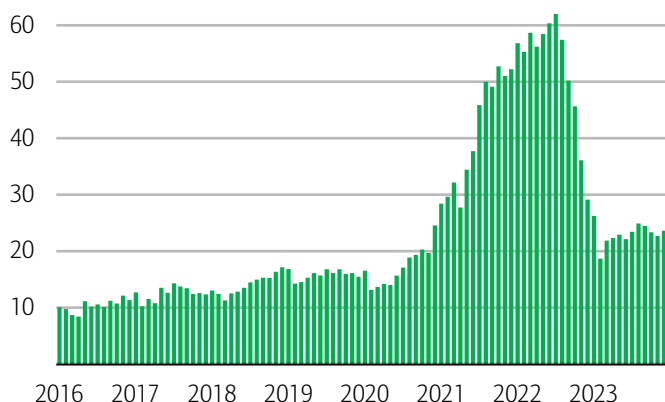
Source: Panama Canal Authority

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## Container liner monthly revenue

**Exhibit 48: Evergreen – monthly revenue, 2016-23 (NT\$ bn)**

Evergreen December monthly revenues: -19% YoY, +4% MoM

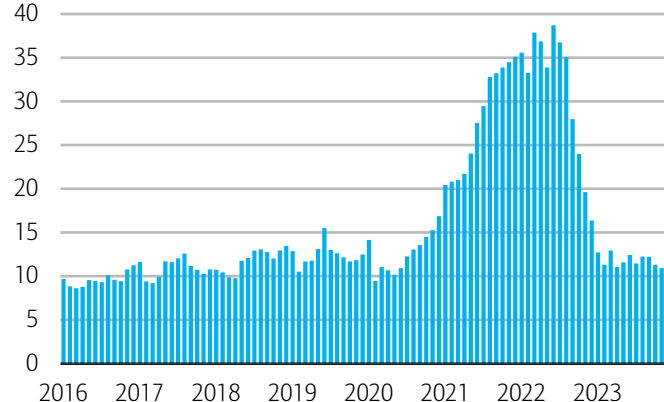


Source: Company reports

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**Exhibit 49: Yang Ming – monthly revenue, 2016-23 (NT\$ bn)**

Yang Ming December monthly revenues: -35% YoY, -2% MoM



Source: Company reports

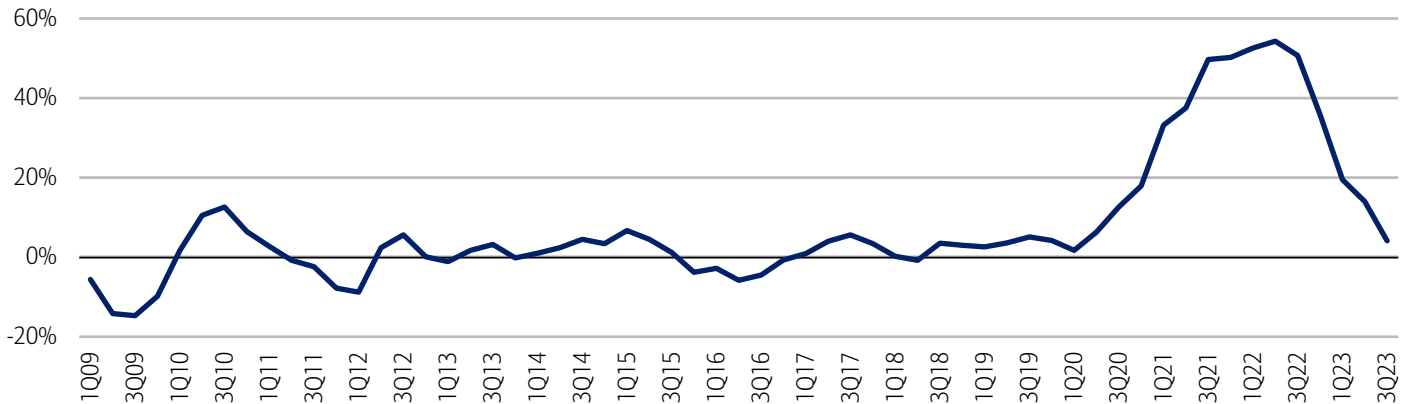
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## Container liner average EBIT margins

### Exhibit 50: Container liner average quarterly EBIT margin, 2009-23

3Q23 operating profit margin of 4%



Source: Linerlytica

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## Vessel supply-side trends

### Exhibit 51: Container shipping orderbook to fleet, 1996-24

Container shipping orderbook stands at around 25% of fleet

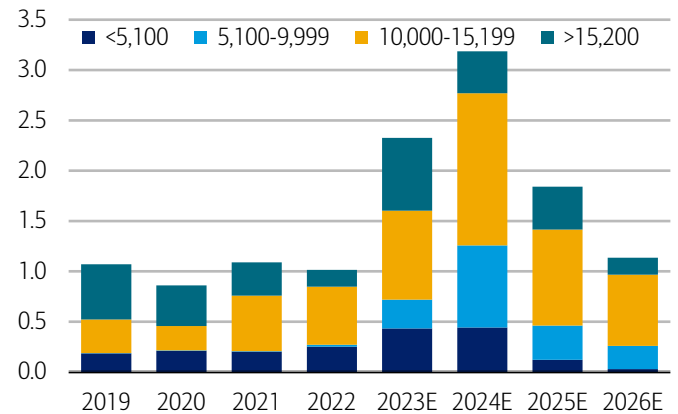


Source: Clarksons

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### Exhibit 52: Delivery by vessel size (mn TEU), 2019-26E

Deliveries ramping into 2024 with ~3.2mn TEU for delivery

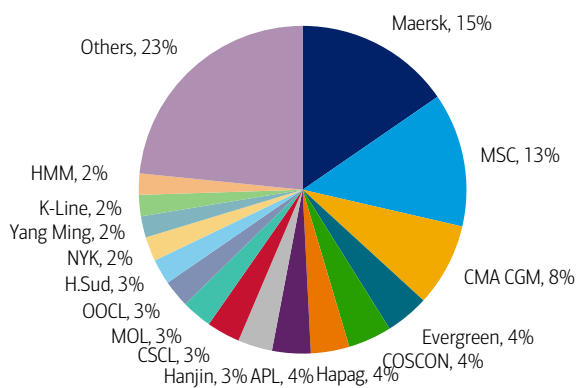


Source: Linerlytica

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### Exhibit 53: Container liner capacity share in 2013

Top 10 carriers in 2013 = ~60% market share

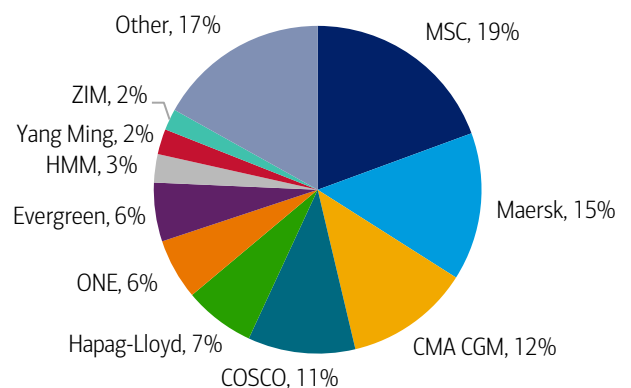


Source: Alphaliner

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### Exhibit 54: Container liner capacity share in 2023

Top 10 carrier in 2023 = ~83% market share

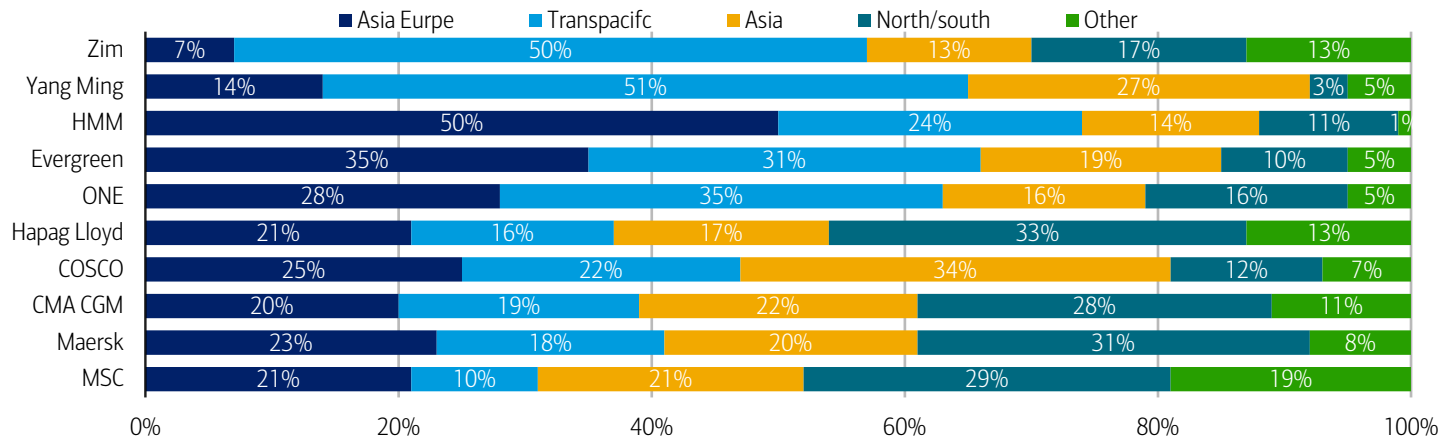


Source: Linerlytica

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**Exhibit 55: Container liner capacity by route**

Container liner capacity deployment by route

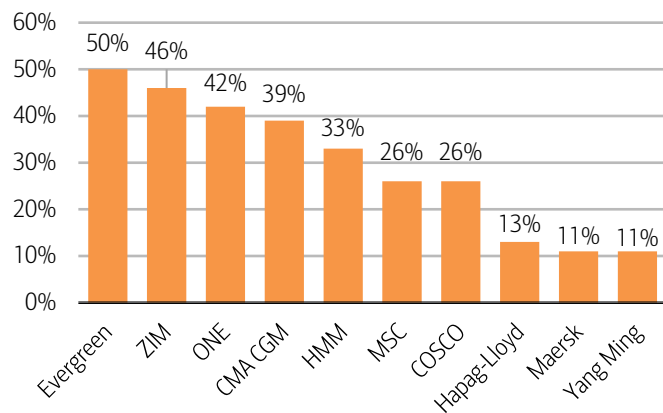


Source: Alphaliner. \*Asia includes Middle East, India

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**Exhibit 56: Container liners – orderbook to fleet**

Larger orderbooks for Evergreen, ZIM, and ONE

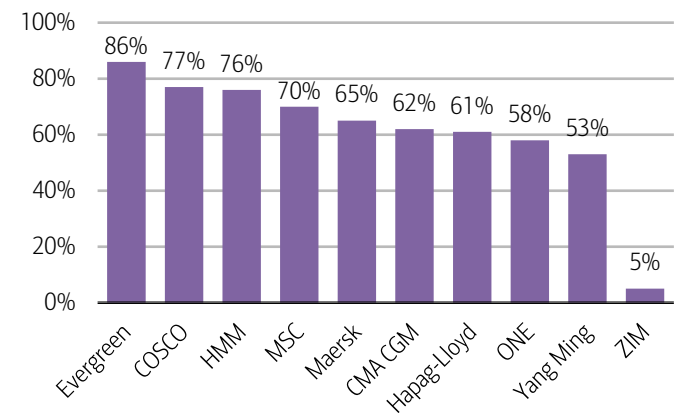


Source: Linerlytica

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**Exhibit 57: Container liners - % of fleet which is owned/finance lease**

Liners own or finance lease more than half their fleet on average

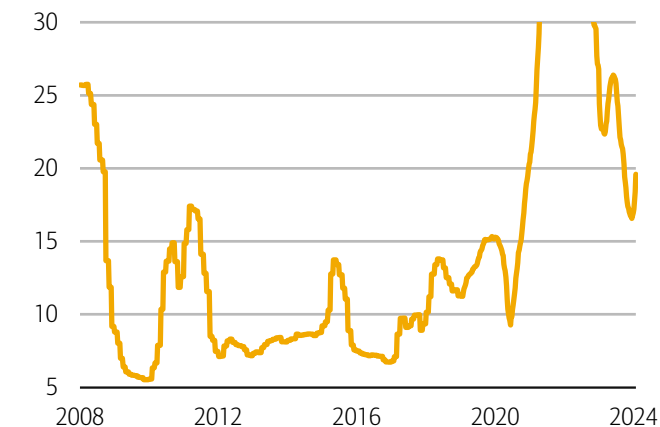


Source: Linerlytica

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**Container shipping costs****Exhibit 58: Average containership charter rate (US\$ k/day), 2008-24**

Average charter rates now around US\$20K/day



Source: Clarkson

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**Exhibit 59: Singapore bunker price (US\$/ton), 2016-24**

VLSFO ~US\$640/ton and HSFO ~US\$450/ton



Source: Clarkson

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## Container vessel speeds & scrapping

### Exhibit 60: Container vessel average sailing speed (knots), 2013-23

Container vessels sailing speed below 14 knots

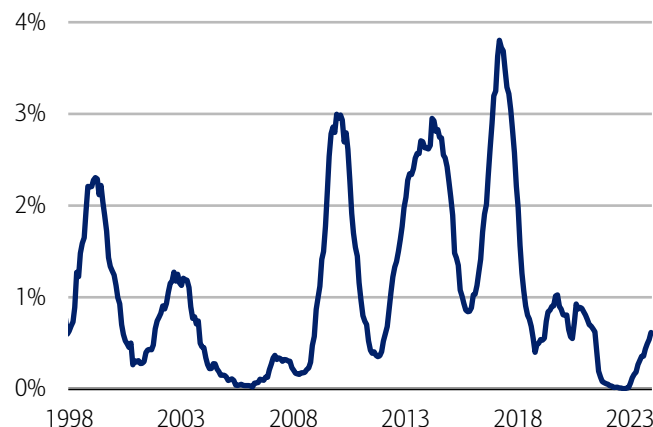


Source: Clarksons

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### Exhibit 61: Container scrap rate (% of fleet), 1998-2023

Scrapping rate around 0.6% of fleet



Source: Clarksons

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## Container shipping - demand & supply outlook

### Exhibit 62: Container shipping demand & supply outlook, 2014-25E

Container shipping faces heavy oversupply into 2023-24

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023E	2024E	2025E
<b>Demand growth (TEU)</b>	5.3%	1.3%	3.0%	6.6%	5.2%	2.5%	-0.7%	6.7%	0.8%	0.3%	3.4%	3.5%
New vessel deliveries	8.6%	9.4%	4.7%	5.9%	6.1%	4.7%	3.7%	4.5%	4.4%	8.7%	10.2%	5.9%
Demolition	-2.1%	-0.1%	-2.9%	-2.0%	-0.2%	-0.9%	-0.7%	-0.1%	-0.1%	-0.7%	-2.5%	-2.0%
<b>Net Slot Capacity Growth</b>	<b>6.5%</b>	<b>9.4%</b>	<b>1.7%</b>	<b>3.9%</b>	<b>5.9%</b>	<b>3.9%</b>	<b>3.0%</b>	<b>4.4%</b>	<b>4.3%</b>	<b>8.0%</b>	<b>7.7%</b>	<b>3.9%</b>
Impact of change in idle rate	1.4%	-0.7%	-3.5%	2.9%	1.6%	-1.3%	-2.9%	5.2%	0.0%	-0.4%	0.0%	0.0%
Impact of change in congestion	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-1.9%	-5.2%	-4.8%	5.8%	0.9%	0.0%
<b>"In service" capacity growth (TEU)</b>	<b>7.9%</b>	<b>8.7%</b>	<b>-1.7%</b>	<b>6.7%</b>	<b>7.5%</b>	<b>2.6%</b>	<b>-1.8%</b>	<b>4.4%</b>	<b>-0.5%</b>	<b>13.4%</b>	<b>8.6%</b>	<b>3.9%</b>
<b>Effective Demand / Supply balance</b>	<b>-2.6%</b>	<b>-7.4%</b>	<b>+4.7%</b>	<b>-0.1%</b>	<b>-2.3%</b>	<b>-0.1%</b>	<b>+1.1%</b>	<b>+2.3%</b>	<b>+1.3%</b>	<b>-13.1%</b>	<b>-5.2%</b>	<b>-0.4%</b>

Source: BofA Global Research estimates, Linerlytica

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# Tanker shipping

## Freight rates

### Exhibit 63: Average quarterly tanker rates (US\$/day), 2023-24

Average quarterly tanker rates up QoQ

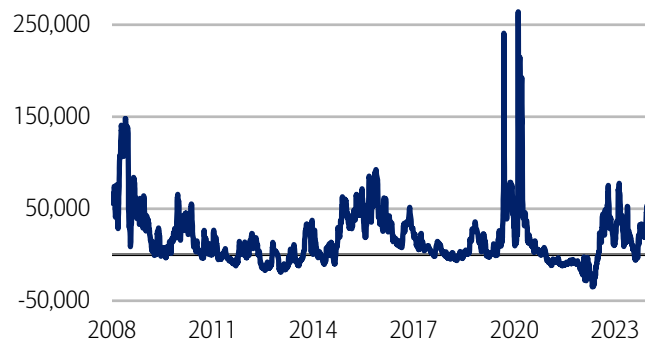
Date	1Q23	2Q23	3Q23	4Q23	1Q24
VLCC	34,498	25,984	8,747	20,792	42,436
Suezmax	74,764	49,350	17,655	49,911	59,632
Aframax	64,833	45,616	18,800	45,969	64,445
MR	29,143	25,574	24,610	28,467	28,665
LR2	50,462	48,135	33,058	39,923	44,000
% YoY					
VLCC	-295%	-220%	-10%	-51%	23%
Suezmax	244%	38%	-65%	-44%	-20%
Aframax	197%	28%	-60%	-42%	-1%
MR	199%	-24%	-38%	-31%	-2%
LR2	149%	78%	-2%	-14%	-13%
% QoQ					
VLCC	-19%	-25%	-66%	138%	104%
Suezmax	-16%	-34%	-64%	183%	19%
Aframax	-18%	-30%	-59%	145%	40%
MR	-30%	-12%	-4%	16%	1%
LR2	9%	-5%	-31%	21%	10%

Source: Clarksons, Note: 1Q24 numbers are average of January data

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### Exhibit 65: VLCC freight rates (US\$/day), 2008-24

Baltic VLCC rates up in January

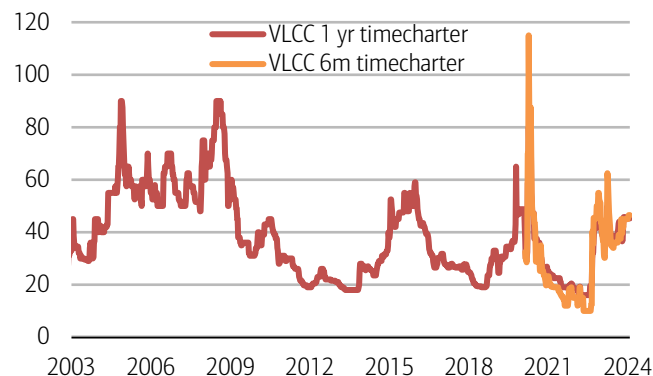


Source: Clarksons

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### Exhibit 67: VLCC time charter rates (US\$ k/day), 2003-24

One year VLCC time charter rates around US\$45k per day

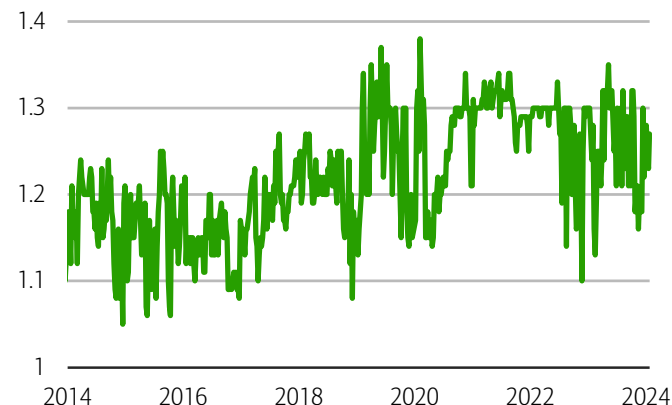


Source: Clarksons

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### Exhibit 64: VLCC supply vs demand in Middle East #, 2014-24

It has been in the 1.2-1.3 range for the past year

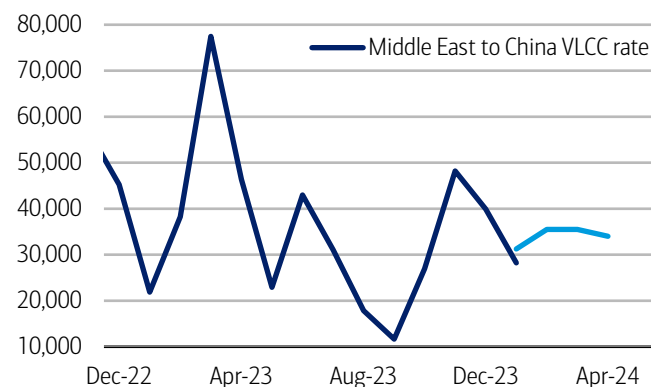


Source: Bloomberg. # 1 indicates equal number of VLCC supply vs demand for next 30 days, 1.1 indicates 10% surplus of VLCC relative to demand in coming 30 days,

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### Exhibit 66: VLCC freight forward agreement rates (US\$/day)

Forward curve at ~US\$35k/day in 1Q24

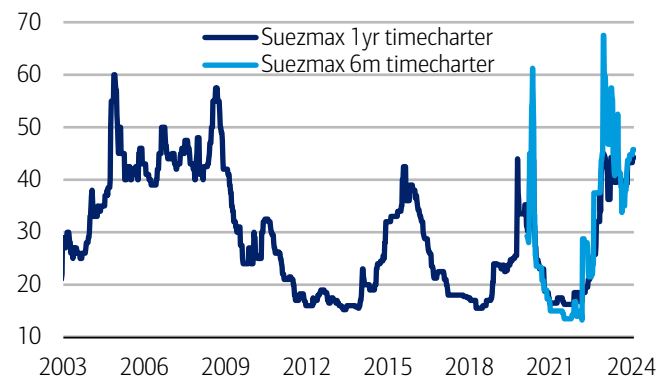


Source: Clarksons, Baltic Exchange

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### Exhibit 68: Suezmax time charter rates (US\$ k/day), 2003-24

One year Suezmax time charter rates around US\$44k per day



Source: Clarksons

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## Crude oil demand

**Exhibit 69: Seaborne crude oil volumes (% YoY), 2015-23**

Seaborne crude tanker volume YoY growth slowed on OPEC cuts

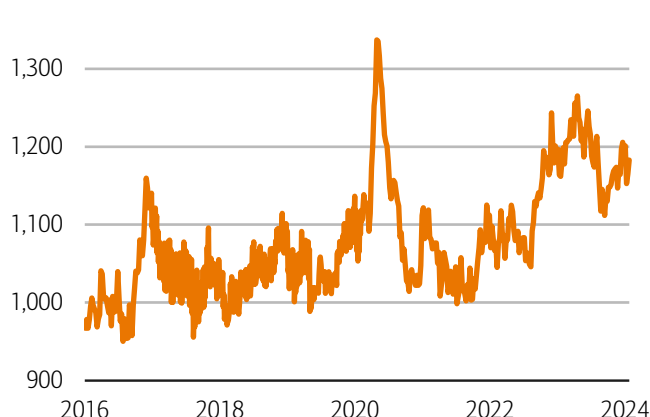


Source: Clarksons

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**Exhibit 70: Crude tanker barrels on the water (mn bbl), 2016-24**

Crude tanker demand has sequentially improved



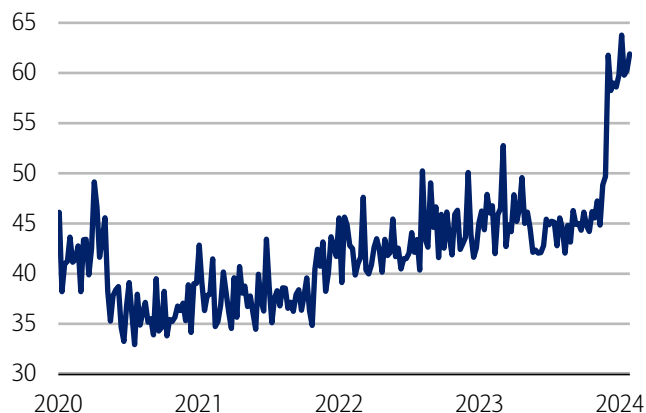
Source: Clarksons

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## Crude oil exports

**Exhibit 71: Global weekly crude oil exports (mn b/d), 2020-24**

Global crude oil exports above 60mn b/d

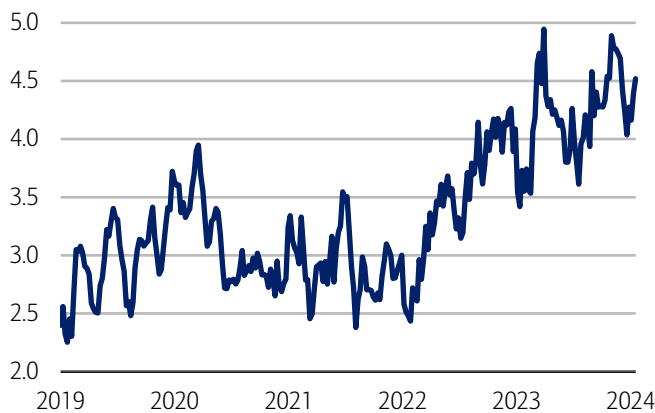


Source: Bloomberg

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**Exhibit 72: US crude exports (mn b/d) – 4w MA, 2019-23**

US crude oil exports slightly bounced back

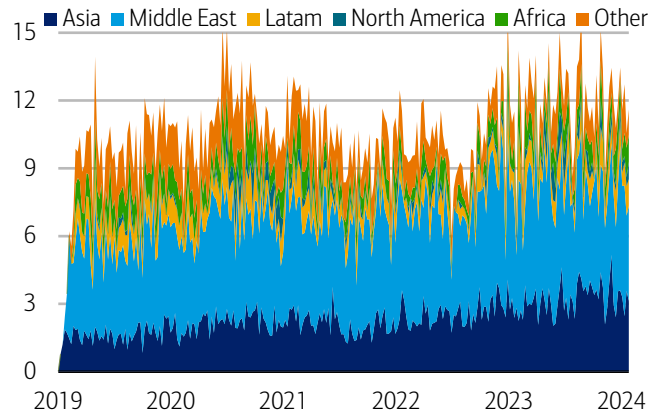


Source: Bloomberg

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**Exhibit 73: Chinese weekly crude imports (mn b/d), 2019-24**

Chinese imports strengthened in recent weeks

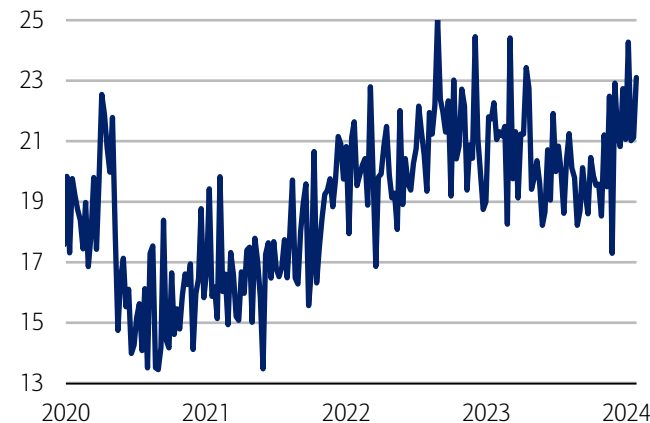


Source: Bloomberg

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**Exhibit 74: Middle east crude exports (mn bbl / week), 2020-24**

Middle East exports came down but still remain relatively high

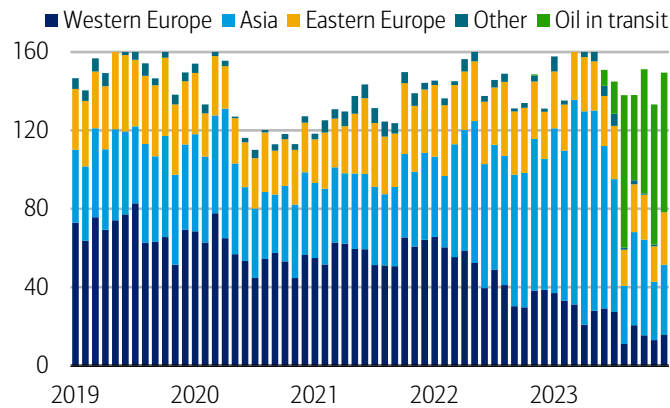


Source: Bloomberg

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**Exhibit 75: Russian seaborne crude exports (mn bbl / month), 2019-23**

Total Russian crude exports still robust

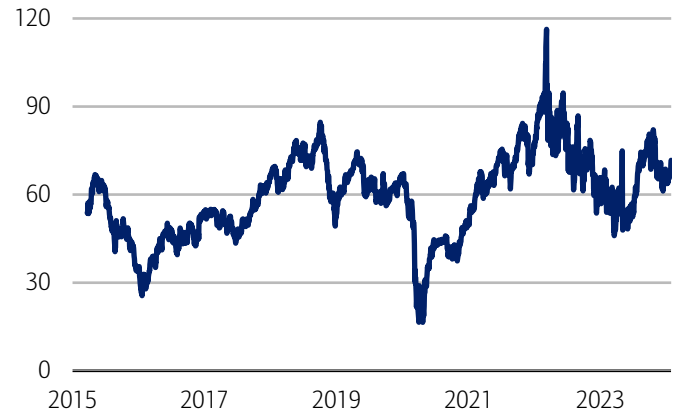


Source: Bloomberg

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**Exhibit 76: Med Urals crude oil price (US\$/bbl), 2015-24**

Urals crude oil price ~US\$70/bbl

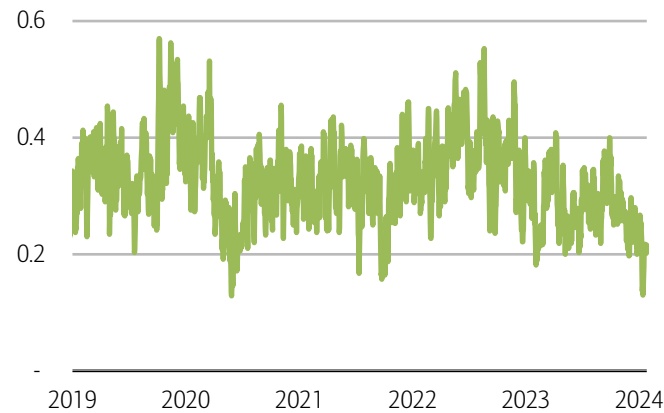


Source: Bloomberg

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**Panama Canal transit volume and congestion****Exhibit 77: Panama Canal oil tanker transit 7day MA (mn DWT/day)**

Some recovery in early December but still lower end of historical range

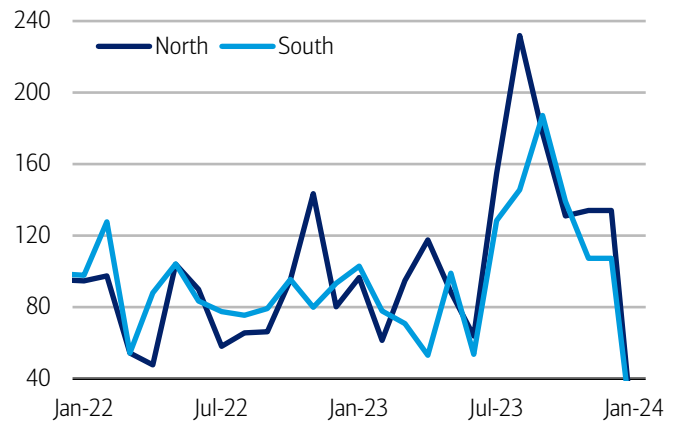


Source: Clarksons

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**Exhibit 78: Panama Canal tanker waiting time (hours), 2021-23**

Waiting time for both north and south bound for tanker dropped in January

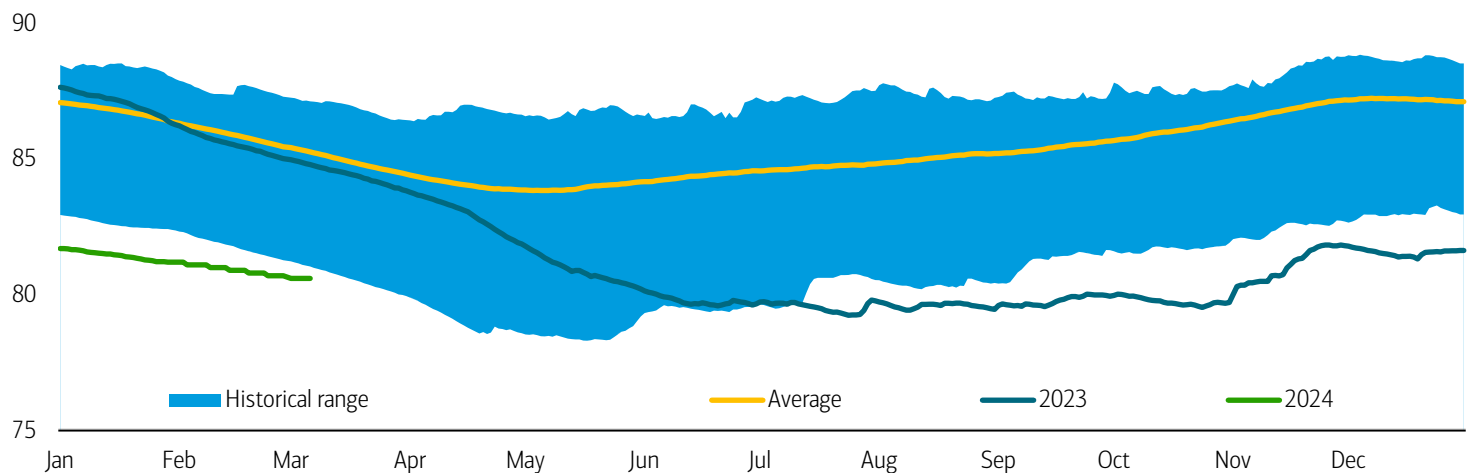


Source: Panama Canal Authority

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**Exhibit 79: Panama Gatun lake water level (ft)**

Current water level remains well below historical water level



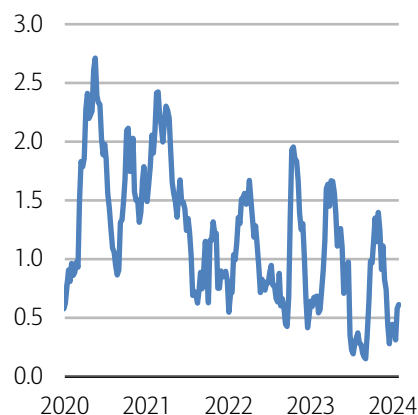
Source: Panama Canal Authority. Note: 2024 data is Panama Canal Authority's estimates

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## Oil refinery outage

### Exhibit 80: Europe (k bbl/ day)

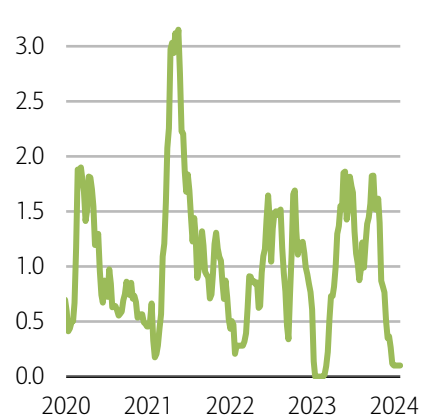
Outage around 0.6k bbl/day at end of January



Source: Bloomberg. Note: Europe include Mediterranean  
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### Exhibit 81: Asia Pacific (k bbl/ day)

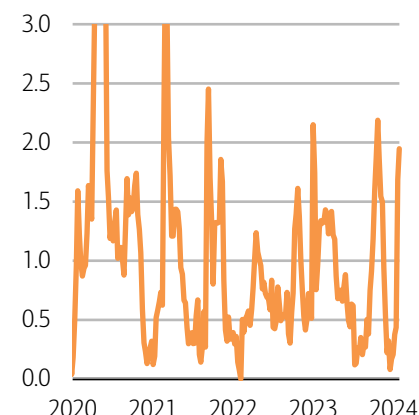
Very little outage in January 2024



Source: Bloomberg. Note: Asia Pacific includes Japan & China  
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### Exhibit 82: North America (k bbl/ day)

Outage picked up in end of January



Source: Bloomberg  
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## Tanker supply

### Exhibit 83: Crude tanker orderbook as % of fleet, 1996-24

Crude tanker orderbook to fleet ~4.5%



Source: Clarksons  
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### Exhibit 84: Crude tanker storage as % of fleet, 2018-24

Tanker storage now around 1.7% of fleet

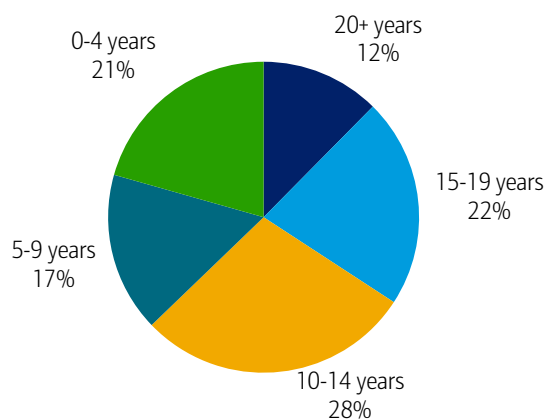


Source: Clarksons  
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## Tanker age and scrap rate

### Exhibit 85: Crude tanker – age distribution, 2023

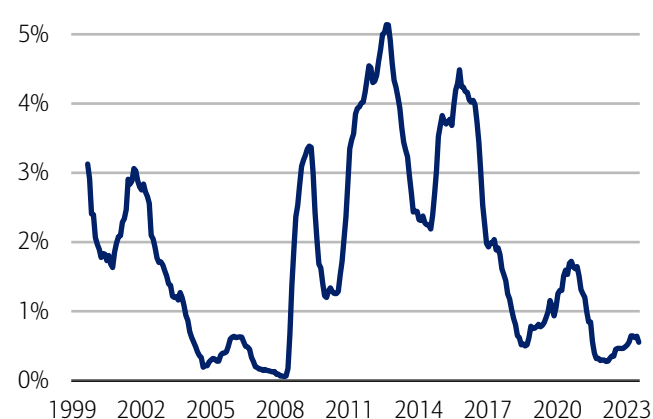
34% of fleet is older than 15 years



Source: Clarksons  
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### Exhibit 86: Tanker scrap rate (%) – 1999-2023

Scrapping rate down to still around 0.55% of fleet



Source: Clarksons  
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## Crude tanker demand & supply

### Exhibit 87: Crude tanker demand & supply growth forecasts (% YoY), 2014-25E

Crude tanker market fundamentals look positive in the years ahead

Crude tanker	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023E	2024E	2025E
Demand Growth	-0.2%	2.9%	4.0%	5.0%	3.4%	1.1%	-6.7%	-3.7%	7.0%	6.8%	5.0%	1.5%
Effective Fleet Growth	0.4%	1.0%	5.9%	5.9%	1.1%	6.0%	0.9%	-0.1%	3.2%	2.6%	0.4%	0.8%
<b>Demand / supply balance</b>	<b>-0.6%</b>	<b>+1.9%</b>	<b>-1.9%</b>	<b>-0.9%</b>	<b>+2.3%</b>	<b>-4.8%</b>	<b>-7.6%</b>	<b>-3.6%</b>	<b>+3.8%</b>	<b>+4.2%</b>	<b>+4.6%</b>	<b>+0.7%</b>
Crude tanker fleet (mn dwt)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Fleet, beginning	339.5	340.8	347.5	367.6	386.3	388.5	417.0	430.7	442.4	446.4	452.6	454.2
New delivery	9.3	8.4	20.8	27.8	20.9	28.2	17.1	16.6	9.3	10.7	3.2	5.0
Scrapping rate	(6.0)	(1.3)	(1.4)	(9.0)	(17.1)	(2.6)	(3.4)	(9.0)	(5.3)	(4.5)	(1.6)	(1.6)
Others	(2.1)	(0.4)	0.7	(0.2)	(1.7)	3.0	0.0	4.0	0.0	0.0	0.0	0.0
<b>Fleet, Ending, Dwt mn **</b>	<b>341</b>	<b>347</b>	<b>368</b>	<b>386</b>	<b>388</b>	<b>417</b>	<b>431</b>	<b>442</b>	<b>446</b>	<b>453</b>	<b>454</b>	<b>458</b>
Growth	0.4%	2.0%	5.8%	5.1%	0.6%	7.4%	3.3%	2.7%	0.9%	1.4%	0.4%	0.8%
Floating storage adjustment	0.0%	-1.0%	0.1%	0.8%	0.6%	-1.4%	-2.4%	-2.8%	2.3%	1.2%	0.0%	0.0%
<b>Effective supply growth</b>	<b>0.4%</b>	<b>1.0%</b>	<b>5.9%</b>	<b>5.9%</b>	<b>1.1%</b>	<b>6.0%</b>	<b>0.9%</b>	<b>-0.1%</b>	<b>3.2%</b>	<b>2.6%</b>	<b>0.4%</b>	<b>0.8%</b>
Delivery ratio	58%	72%	59%	91%	68%	91%	100%	87%	90%	100%	100%	100%
Scrapping rate	1.8%	0.4%	0.4%	2.4%	4.4%	0.7%	0.8%	2.1%	1.2%	1.0%	0.4%	0.4%
Gross delivery rate	2.7%	2.5%	6.0%	7.6%	5.4%	7.2%	4.1%	3.9%	2.1%	2.4%	0.7%	1.1%

Source: Clarksons, BofA Global Research estimates

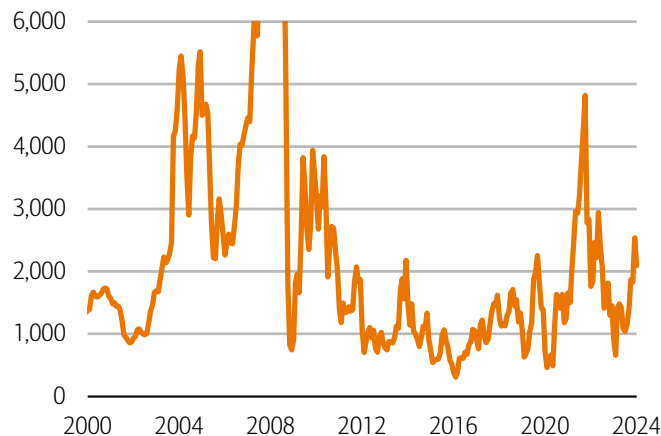
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# Dry bulk shipping

## Freight rates

**Exhibit 88: Baltic Dry Index, 2000-24**

BDI just above 2,000



Source: Clarksons

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**Exhibit 89: Baltic average rates (US\$/day), 2023-24**

Dry bulk quarterly rates up YoY

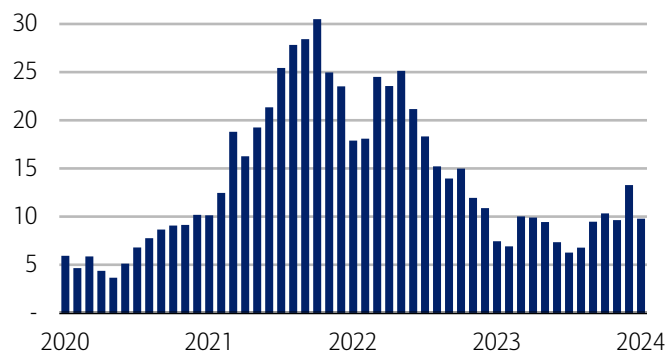
Date	1Q23	2Q23	3Q23	4Q23	1Q24
BDI	1,011	1,313	1,194	2,033	1,656
Capesize	9,144	15,561	13,407	28,128	21,532
Panamax 82	11,326	12,248	11,890	16,117	12,297
Supramax 58	10,171	10,763	10,028	14,148	14,185
Handysize 38	9,702	10,414	8,863	12,851	11,564
<b>% YoY</b>					
BDI	-49%	-48%	-36%	33%	64%
Capesize	-38%	-28%	-21%	89%	135%
Panamax 82	-51%	-58%	-35%	0%	9%
Supramax 58	-60%	-61%	-53%	-5%	39%
Handysize 38	-60%	-61%	-59%	-14%	19%
<b>% QoQ</b>					
BDI	-34%	30%	-9%	70%	-19%
Capesize	-39%	70%	-14%	110%	-23%
Panamax 82	-29%	8%	-3%	36%	-24%
Supramax 58	-31%	6%	-7%	41%	0%
Handysize 38	-35%	7%	-15%	45%	-10%

Source: Clarksons

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**Exhibit 90: Handysize spot monthly average (US\$ k/day), 2020-24\***

Spot handysize averaged ~US\$10k/day in January



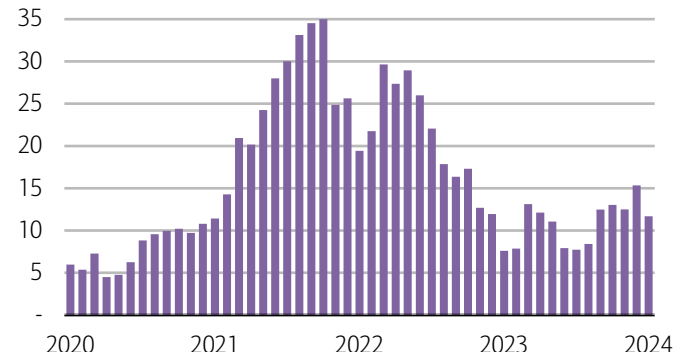
Source: Clarksons, BofA Global Research estimates

\*Size and commission adjusted to be comparable to PacBasin average handy rates

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**Exhibit 91: Supramax spot monthly average (US\$ k/day), 2020-24\***

Spot supramax averaged ~US\$12k/day in January



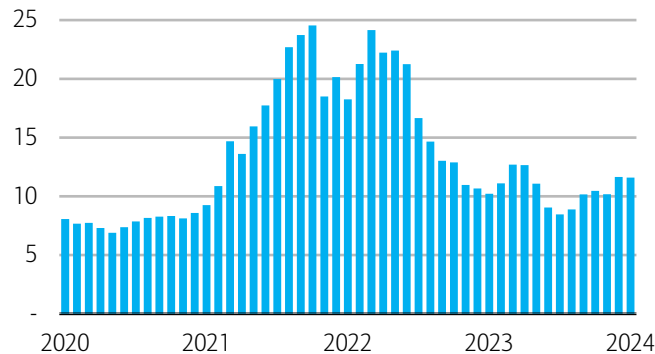
Source: Clarksons, BofA Global Research estimates

\* Commission adjusted to be comparable to PacBasin achieved rates

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**Exhibit 92: Handysize 1yr TC monthly average (US\$ k/day), 2020-24\***

1yr time charter handysize averaging ~US\$11.5k/day in January



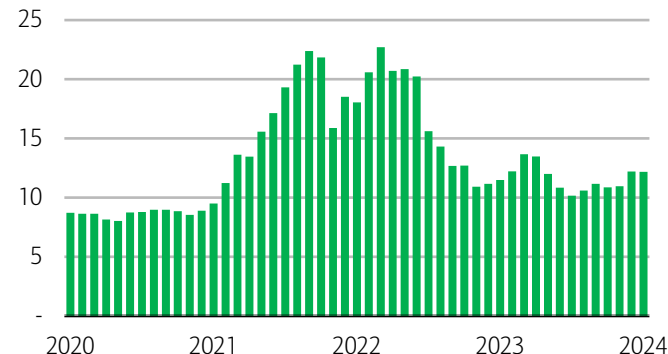
Source: Clarksons, BofA Global Research estimates

\*Size and commission adjusted to be comparable to PacBasin average handy rates

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**Exhibit 93: Supramax 1yr TC monthly average (US\$ k/day), 2020-24\***

1yr time charter supramax averaging ~US\$12.1k/day in January



Source: Clarksons, BofA Global Research estimates

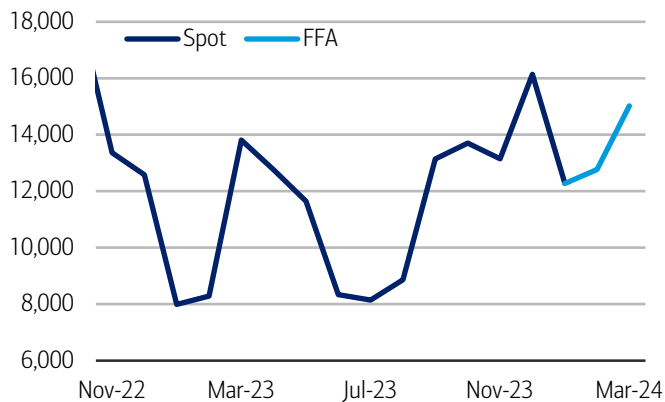
\*Size and commission adjusted to be comparable to PacBasin average handy rates

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## Handysize & Supramax FFA outlook

### Exhibit 94: Supramax - Freight Forward Agreement, 2023-24

Supra forward curves pointing up from here

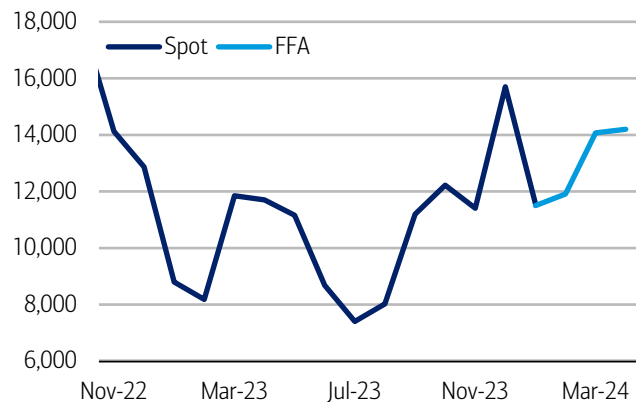


Source: Bloomberg, Braemar

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### Exhibit 95: Handysize - Freight Forward Agreement, 2023-24

Handy forward curves point to up from here



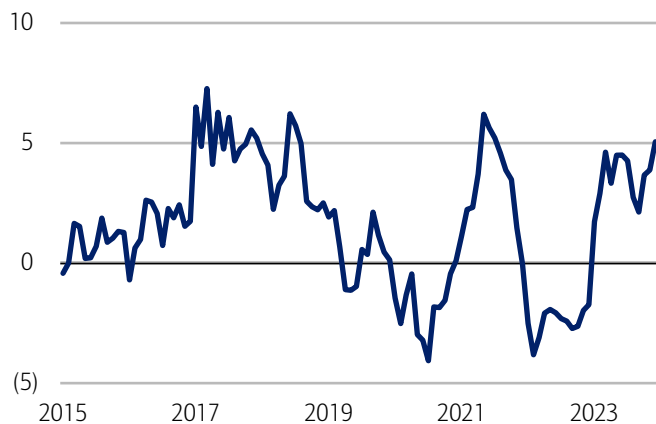
Source: Bloomberg

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## Dry bulk demand reads

### Exhibit 96: Dry bulk demand growth (% YoY), 2015-23

Dry bulk demand improved in 2023

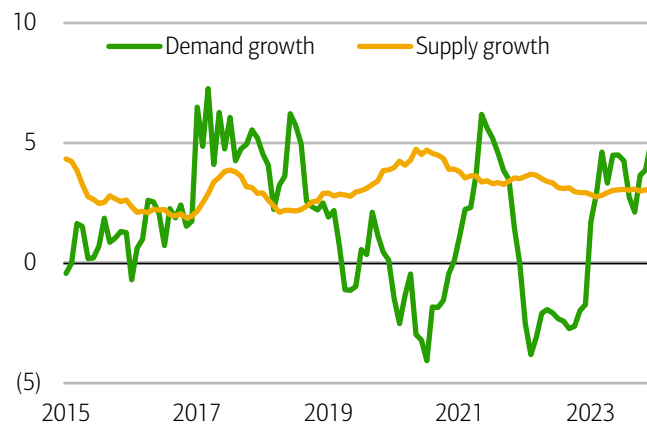


Source: Clarksons

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### Exhibit 97: Bulk demand & supply growth (% YoY), 2015-23

Bulk demand growth above supply growth



Source: Clarksons

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### Exhibit 98: Iron ore demand growth (% YoY), 2015-23

Iron ore demand growth remain around 8%

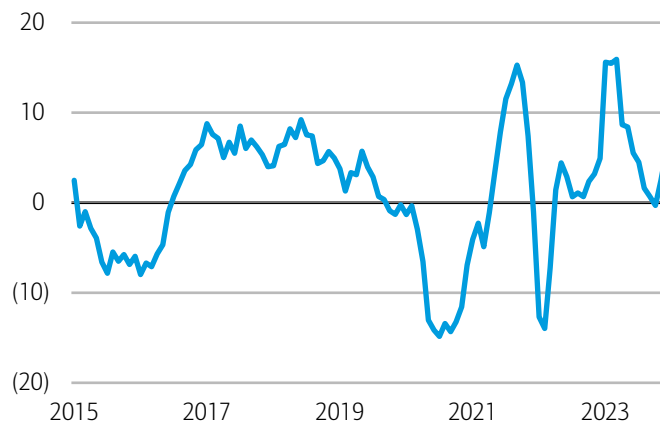


Source: Clarksons

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### Exhibit 99: Coal demand growth (% YoY), 2015-23

Coal demand growth picked up in January

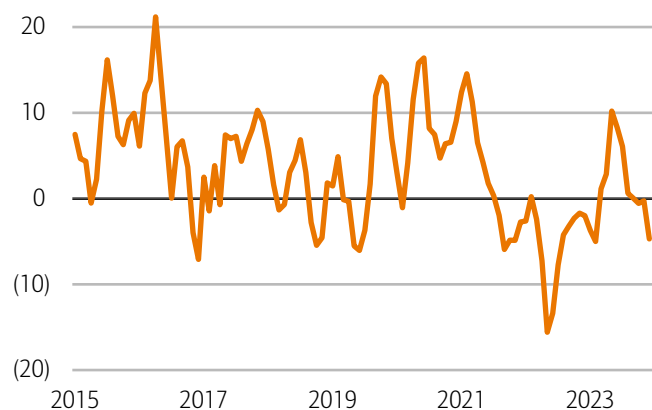


Source: Clarksons

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**Exhibit 100: Grain demand growth (% YoY), 2015-23**

Grain demand to show small sign of improvement

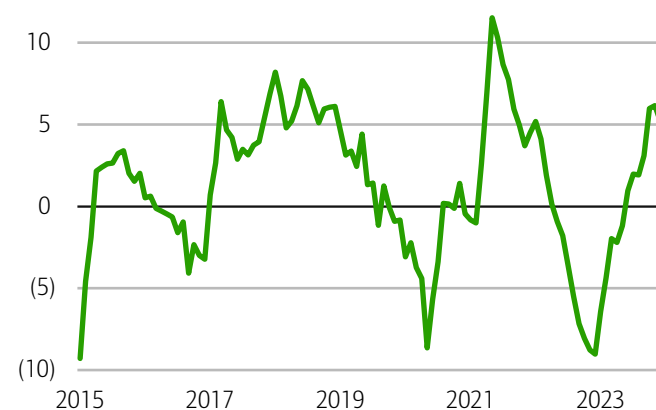


Source: Clarksons

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**Exhibit 101: Minor bulk demand growth (% YoY), 2015-23**

Minor bulk demand growth trending up

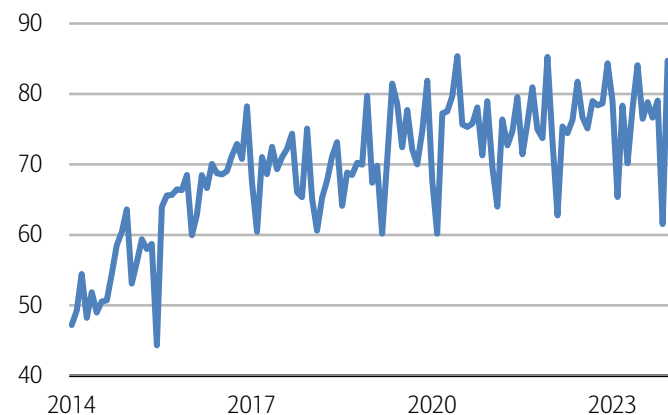


Source: Clarksons

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**Iron ore monthly shipments****Exhibit 102: Australia iron ore monthly shipments (tn ton), 2014-23**

Australia iron ore exports recovering off cyclone disruptions

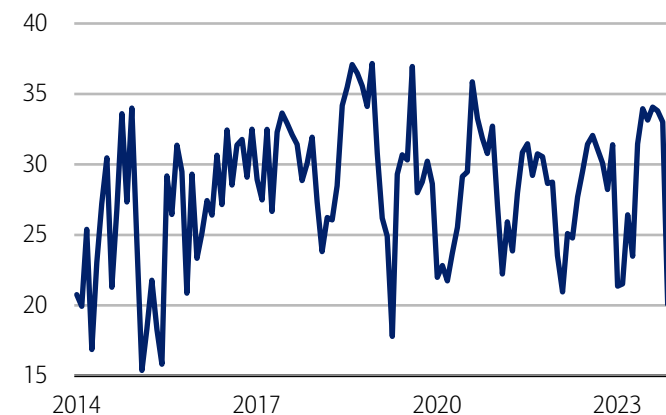


Source: Bloomberg

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**Exhibit 103: Brazil iron ore monthly shipments (tn ton), 2014-23**

Brazil iron ore exports relatively stable



Source: Bloomberg

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**Vessel supply****Exhibit 104: Dry bulk orderbook to fleet (%), 1996-2024**

Orderbook to fleet still below 10%

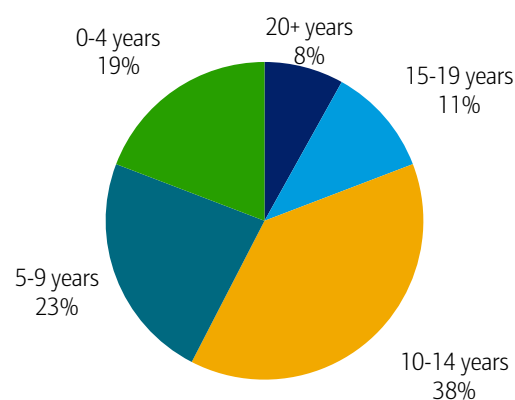


Source: Clarksons

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**Exhibit 105: Dry bulk vessel age distribution, 2023**

19% of fleet is older than 15 years

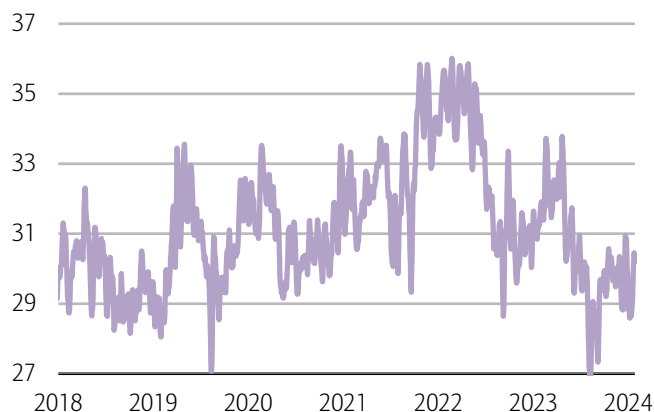


Source: Clarksons

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## Port congestion

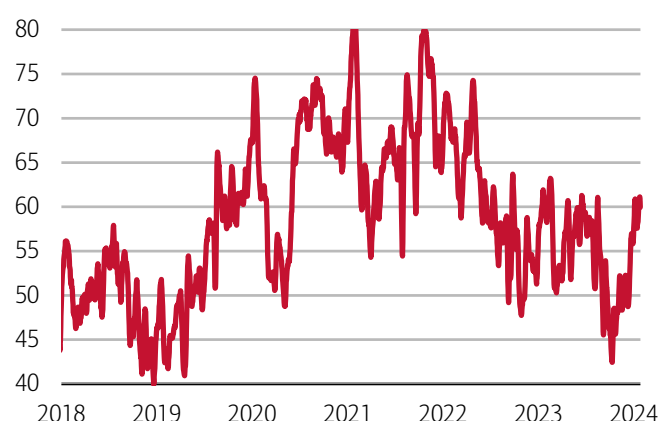
**Exhibit 106: Daily dry bulk fleet at port (anchor or berth) (%), 2018-24**  
~30% of dry bulk fleet at port



Source: Clarksons

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**Exhibit 107: Daily dry bulk fleet at Chinese ports (mn DWT 7D MA)**  
Rebounded in early January, now around 60 mn DWT

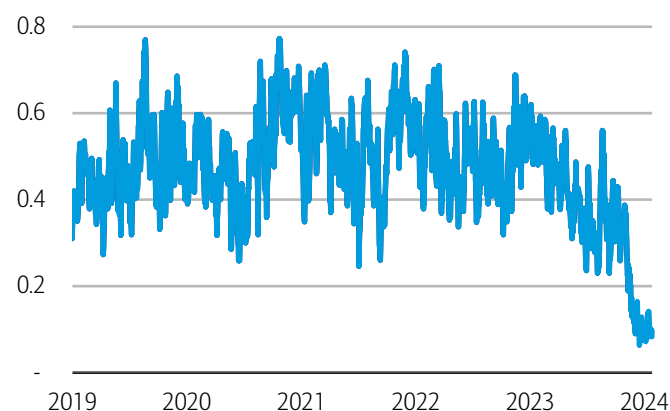


Source: Clarksons

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## Panama Canal transit volume and waiting time

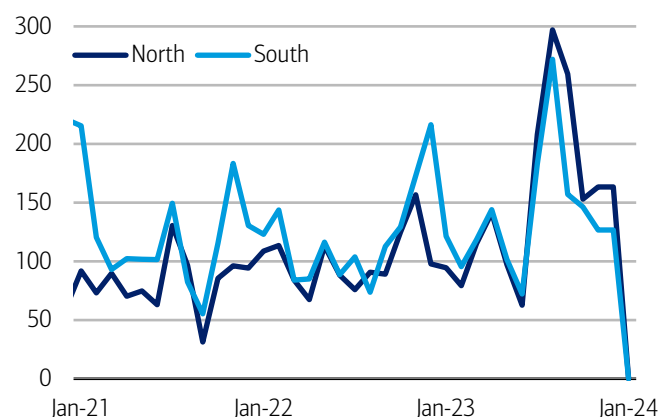
**Exhibit 108: Panama Canal bulk carrier transit 7day MA (mn DWT/day)**  
Transit started to come down in early November and now below 0.1mn



Source: Clarksons

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**Exhibit 109: Panama Canal bulker waiting time (hours), 2020-23**  
Bulk vessel congestion easing with very little wait time

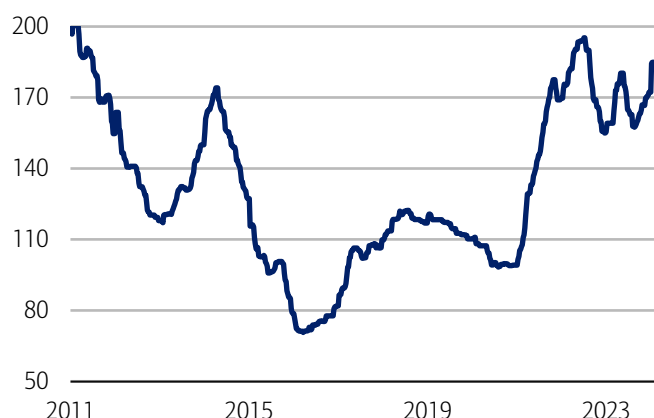


Source: Panama Canal Authority

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## Bulk carrier price & scrap rate

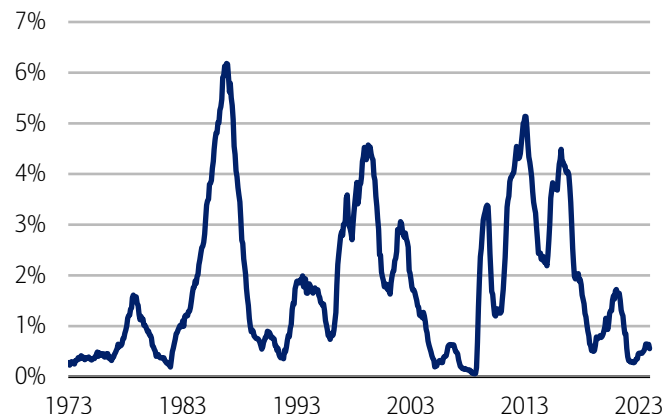
**Exhibit 110: Bulk carrier secondhand vessel price index, 2011-23**  
Secondhand vessel prices started to come down but still at higher end



Source: Clarksons

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**Exhibit 111: Bulk carrier scrap rate (%) – 1973-2023**  
Scraping rate down to around 0.55% of fleet



Source: Clarksons

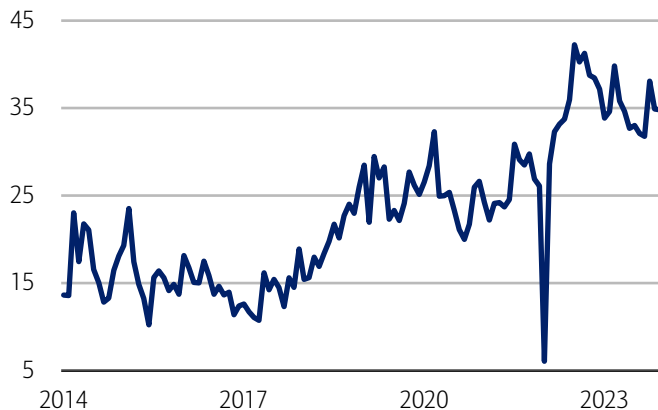
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## Coal monthly shipments

### Exhibit 112: Indonesian coal monthly shipments (tn ton), 2014-23

Indonesian exports remain high

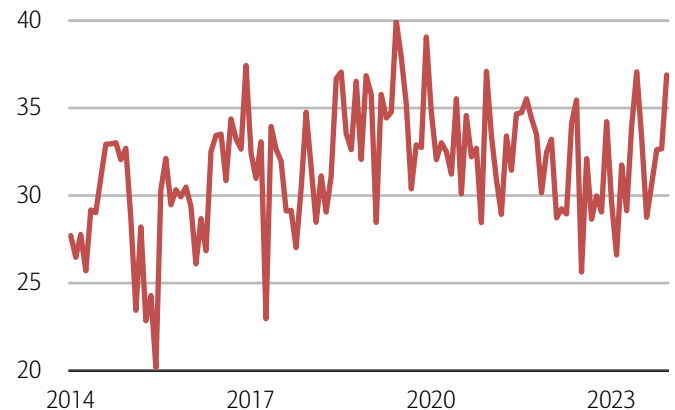


Source: Bloomberg

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### Exhibit 113: Australian coal monthly shipments (tn ton), 2014-23

Aussie coal shipments remain strong



Source: Bloomberg

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## Dry bulk demand & supply

### Exhibit 114: Dry bulk shipping demand & supply growth (% YoY), 2016-25E

Dry bulk demand/supply outlook

Dry Bulk	2016	2017	2018	2019	2020	2021	2022	2023E	2024E	2025E
Demand	2.3%	3.9%	3.4%	0.7%	0.0%	3.5%	-1.8%	4.5%	1.9%	2.2%
Fleet Growth	2.3%	3.1%	2.7%	3.0%	4.1%	3.9%	2.9%	2.9%	2.0%	1.4%
<b>Demand / Supply Balance</b>	<b>0.0%</b>	<b>0.8%</b>	<b>0.7%</b>	<b>-2.2%</b>	<b>-4.1%</b>	<b>-0.4%</b>	<b>-4.7%</b>	<b>1.6%</b>	<b>-0.1%</b>	<b>0.8%</b>
<b>Dry Bulk Fleet, Dwt mn</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023E</b>	<b>2024E</b>	<b>2025E</b>
Fleet, beginning	780	798	823	845	879	916	949	976	1,005	1,024
New delivery	47	38	28	41	49	38	32	34	30	26
Demolition	(29)	(15)	(4)	(8)	(15)	(5)	(4)	(6)	(10)	(11)
Others	(0)	1	(1)	0	3	-	-	-	-	-
<b>Fleet, Ending, Dwt mn</b>	<b>798</b>	<b>823</b>	<b>845</b>	<b>879</b>	<b>916</b>	<b>949</b>	<b>976</b>	<b>1,005</b>	<b>1,024</b>	<b>1,039</b>
Growth	2.3%	3.1%	2.7%	4.0%	4.2%	3.6%	2.9%	2.9%	2.0%	1.4%
Adjustment factor				-1.0%	-0.1%	0.3%	0.0%	0.0%	0.0%	0.0%
Adjusted fleet growth				3.0%	4.1%	3.9%	2.9%	2.9%	2.0%	1.4%
Gross delivery rate	6.1%	4.8%	3.4%	4.9%	5.6%	4.2%	3.3%	3.5%	3.0%	2.5%
Scrapping Rate	3.7%	1.8%	0.5%	0.9%	1.8%	0.6%	0.4%	0.6%	1.0%	1.1%

Source: BofA Global Research, Clarksons

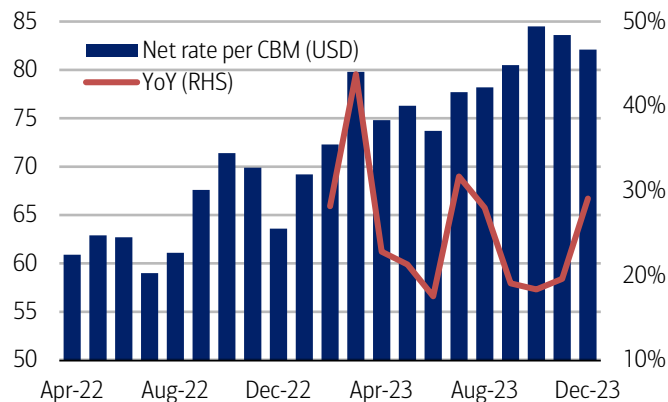
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# Car carrier

## Car carrier shipping freight rates

**Exhibit 115: Hoegh Autoliners – net rate per cbm (US\$), 2022-23**

Continue to stay high – above US\$80 per cbm



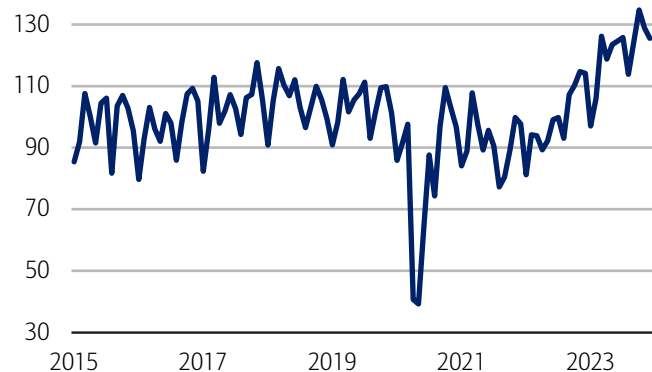
Source: hoeghautoliners

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## Car carrier demand

**Exhibit 117: Global seaborne car trade indicator, 2015-2023**

Came off from the peak but remain strong



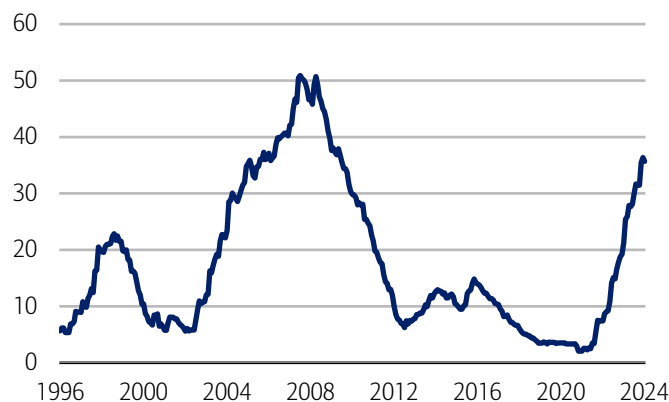
Source: Clarksons

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## Car carrier supply & scrap

**Exhibit 119: Pure car carrier orderbook % of fleet (%), 1996-2024**

Orderbook now above 35% of fleet

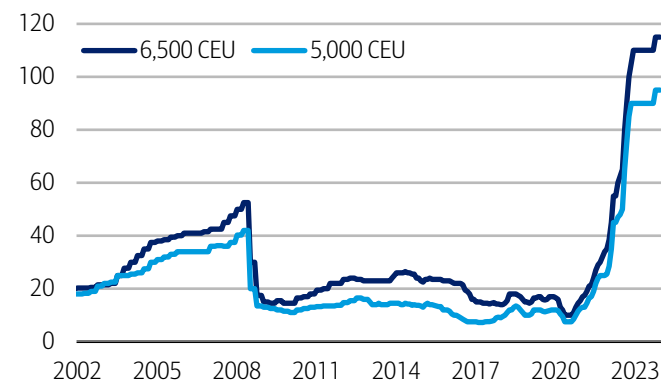


Source: Clarksons

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**Exhibit 116: Car carrier 1 year time charter rate (US\$ k/day), 2002-23**

Rates rapidly increased starting in spring, 2021

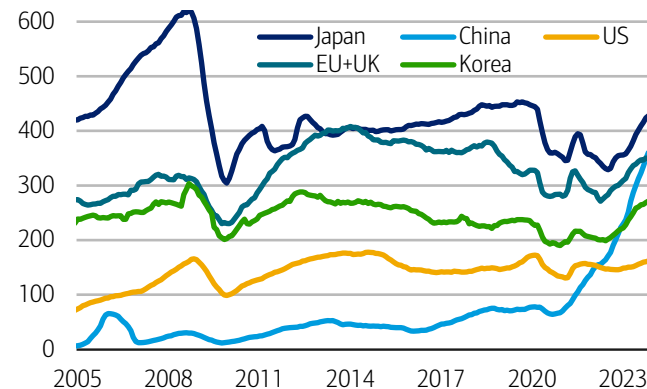


Source: Clarksons

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**Exhibit 118: Global seaborne car exports TTM ('000's), 2005-23**

Chinese car exports have drastically increased post-COVID

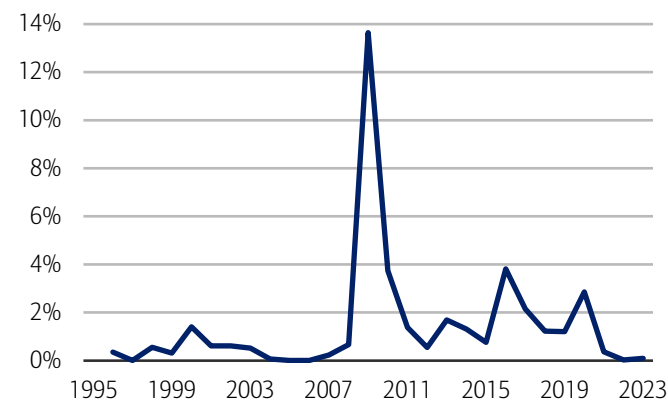


Source: Clarksons

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**Exhibit 120: Car carrier scrap rate (%), 1995-2023**

Scrap rate has been close to zero for the past couple of years



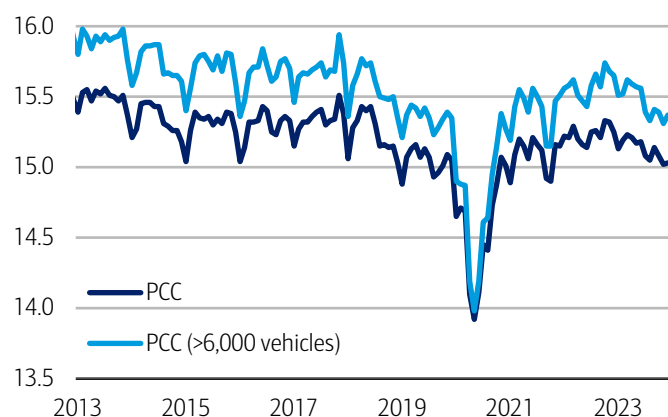
Source: Clarksons

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## Red Sea disruption & Car carrier secondhand price

### Exhibit 121: Pure car carrier average speed (knots), 2013-23

Average speed has been 15-15.5knots

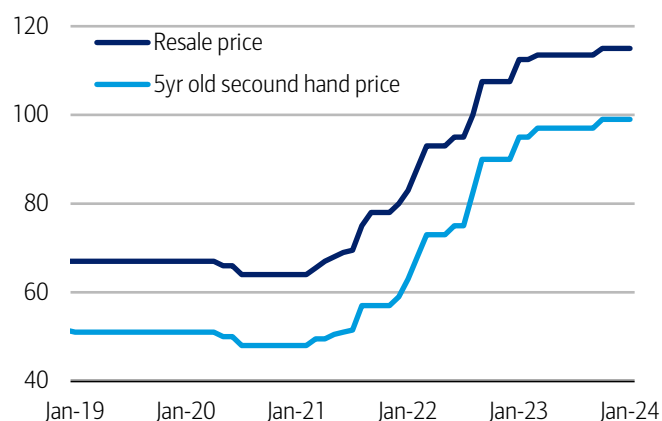


Source: Clarksons

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### Exhibit 122: Pure car and truck carrier prices (US\$ mn), 2019-24

Both resale price and secondhand prices have increased since spring, 2021



Source: Clarksons. Note: Pure car and truck carrier size = 6,500 CEU

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## Car carrier shipping - demand & supply outlook

### Exhibit 123: Car carrier demand & supply outlook

Car carrier tightness set to unwind from 2024-25E as new deliveries arrive

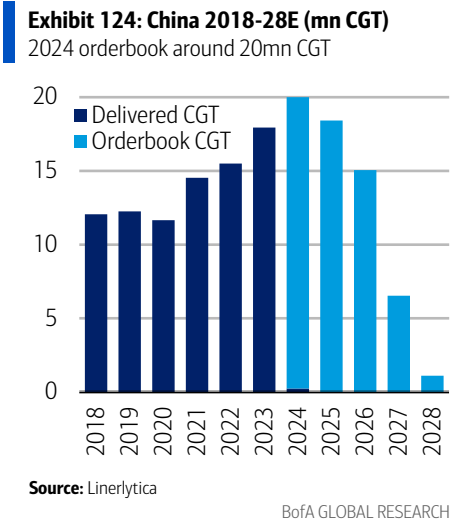
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024 E	2025 E	2026 E	2027 E
Demand growth (% p.a.)	2.0%	-0.5%	0.8%	-0.3%	6.5%	2.5%	0.1%	-20.1%	7.1%	7.0%	14.3%	4.1%	3.7%	3.1%	3.2%
Net supply growth (% p.a.)	5.0%	1.6%	2.6%	3.1%	-0.3%	2.0%	1.2%	-0.6%	-1.6%	1.2%	0.4%	8.1%	10.0%	6.2%	0.7%
<b>Demand/(supply) imbalance</b>	<b>-3.0%</b>	<b>-2.1%</b>	<b>-1.8%</b>	<b>-3.4%</b>	<b>6.8%</b>	<b>0.5%</b>	<b>-1.1%</b>	<b>-19.5%</b>	<b>8.7%</b>	<b>5.9%</b>	<b>14.0%</b>	<b>-4.0%</b>	<b>-6.3%</b>	<b>-3.2%</b>	<b>2.5%</b>
Gross deliveries (% p.a.)	3.5%	4.0%	4.0%	3.6%	4.1%	2.4%	0.8%	1.4%	1.5%	0.5%	1.9%	8.6%	10.5%	6.7%	1.2%
Scrapping (% p.a.)	1.8%	1.3%	0.8%	3.9%	2.1%	1.2%	1.2%	2.8%	0.4%	0.0%	0.1%	0.5%	0.5%	0.5%	0.5%

Source: Clarksons, BofA Global Research estimates

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# Shipyard vessel delivery schedule



## Disclaimer

Selected Bank of America (“BAC”) transaction data are used to inform the macroeconomic views expressed in this report and should be considered in the context of other economic indicators and publicly available information. In certain instances, the data may provide directional and/or predictive value. The data used are not comprehensive; they are based on aggregated and anonymized selections of BAC data and may reflect a degree of selection bias and limitations on the data available.

## Methodology explained

Readers should be aware that although the BAC datasets utilized in our analysis represent a significant number of data points, they nevertheless present a degree of selection bias, including but not limited to income levels and geographies. In addition, the data is limited to debit and credit cards and does not include other payment methods such as cash or checks.

Data regarding merchants who receive payments are identified and classified by the Merchant Categorization Code (MCC) defined by financial services companies. The data are mapped using proprietary methods from the MCCs to the North American Industry Classification System (NAICS), which is also used by the Census Bureau, in order to classify spending data by subsector. Spending data may also be classified by other proprietary methods not using MCCs.

BAC data used in this report include spending from active US households only. Spending from corporate cards are excluded.

Our methodology for calculating the growth rates for daily data: we calculate the %y/y growth rate and the 4-year % change by matching calendar days (Jan 1 2023 is matched to Jan 1 2022, and Jan 1, 2019, respectively). The % change is calculated based on the 7-day moving average of spending levels.

Additional information about the methodology used to aggregate the data is available upon request.

# Disclosures

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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster <sup>R1</sup>
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

<sup>R1</sup> Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

**INCOME RATINGS**, indicators of potential cash dividends, are: 7 - same/higher (dividend considered to be secure), 8 - same/lower (dividend not considered to be secure) and 9 - pays no cash dividend. *Coverage Cluster* is comprised of stocks covered by a single analyst or two or more analysts sharing a common industry, sector, region or other classification(s). A stock's coverage cluster is included in the most recent BofA Global Research report referencing the stock.

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