

Shipping - Global

Shipping & supply chain high frequency tracker #53

Industry Overview

Tracking the high frequency shipping data

This report contains our favorite charts to track the shipping cycle. Another short term inflection in container rates looms helped by blank sailings and a longer peak season, but the broader trend remains down on oversupply and limited idling. Tanker rates have moved up on seasonality and US refinery maintenance – and we’re watching a possible Venezuela deal and the Middle East conflict from here. Dry bulk rates are elevated on seasonality, but a correction is inevitable into late 2023. And new to this edition is car carrier data showing spot rates are still moving sequentially higher – although YoY growth is slowing and car carrier vessel charter rates are holding near the top.

Container: Freight rate volatility set to continue

US container imports are trending 10% above 2019 and 3% YoY higher in late September to early October helped by normal inventory stocking during the peak. Asia-Europe spot rates have fallen below P&L breakeven – but newly announced blank sailings into November (-17% decline in capacity from September) should help support a temporary inflection in spot rates. US west coast spot rates also appear supported for now with unseasonally strong demand helped by eCommerce, although watch planned capacity restoration in November (+22% MoM).

Tanker: Seasonal rate inflection arrives

VLCC tanker spot rates have surged to ~US\$40k/day on winter seasonality and rising US crude exports on refinery maintenance. Six-month time charter rates and the forward curve suggest VLCC rates could average around US\$40k/day through the seasonal peak period (4Q23-1Q24). Upside risks could come from news reports around a possible Venezuela deal (adding to crude shipment demand) or an unwind of Saudi production cuts, while watch downside risks to tanker demand if the Strait of Hormuz is disrupted.

Bulk: Seasonal peak nearing

Spot supramax/handysize rates have surged helped by an upturn in Latam grain exports and higher Brazil port congestion for panamax and supra vessels. Forward rates suggest that spot rates are at the peak – although 6-month time-charter rates (which include the seasonally weaker 1Q24) are trending in-line with spot rates for supra and handysize suggesting there still might be some near-term upside to go for spot rates.

Car carrier: Spot rate increases slowing

New to this edition is data to track the car carrier market. Car carrier spot rates are still sequentially moving higher – although the YoY increases in spot rates are slowing and vessel time charter rates are holding at the peak. Volumes remain supported by Chinese auto exports – but watch new supply from 2024 with the orderbook at 30% of fleet now

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Equity
Global
Shipping

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Abbreviations

VLCC: Very Large Crude Carrier

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Refer to important disclosures on page 26 to 27.

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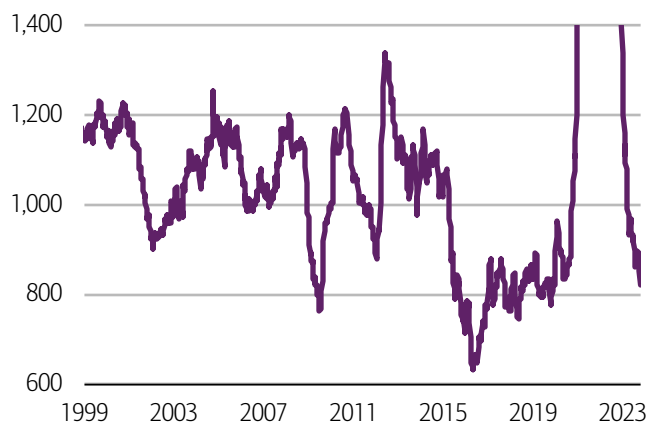
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Container shipping

Blended freight rates

Exhibit 1: China Containerized Freight Index, 1999-2023

CCFI trending at 820 at 5% above 2019



Source: Shanghai Shipping Exchange

Exhibit 2: CCFI quarterly average, 2022-23

CCFI trending -6% QoQ lower in early 4Q23

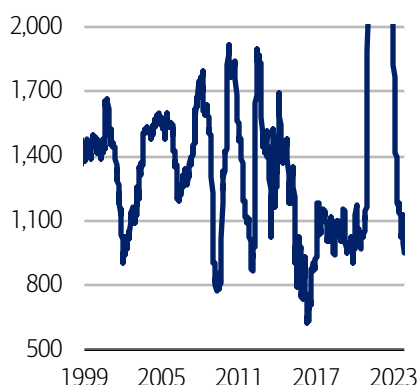
CCFI	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23
CCFI	2,950	1,615	1,087	938	876	820
CCFI Europe	4,738	2,497	1,411	1,154	1,059	948
CCFI USWC	2,331	1,079	789	707	733	721
CCFI USEC	2,844	1,746	1,161	886	870	823
% YoY						
CCFI	-1%	-51%	-68%	-70%	-70%	-49%
CCFI Europe	-7%	-53%	-74%	-77%	-78%	-62%
CCFI USWC	13%	-53%	-70%	-72%	-69%	-33%
CCFI USEC	22%	-31%	-57%	-68%	-69%	-53%
% QoQ						
CCFI	-7%	-45%	-33%	-14%	-7%	-6%
CCFI Europe	-6%	-47%	-44%	-18%	-8%	-10%
CCFI USWC	-7%	-54%	-27%	-10%	4%	-2%
CCFI USEC	2%	-39%	-34%	-24%	-2%	-5%

Source: Shanghai Shipping Exchange

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Exhibit 3: CCFI Europe, 1999-2023

CCFI Europe at 948

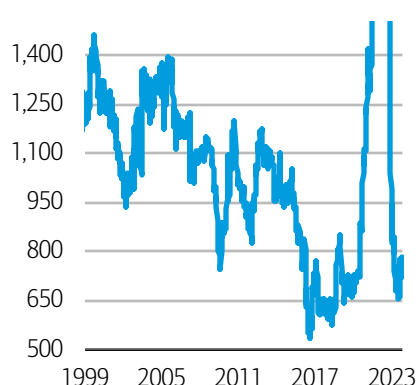


Source: Shanghai Shipping Exchange

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Exhibit 4: CCFI US west coast, 1999-2023

CCFI US west coast at 721

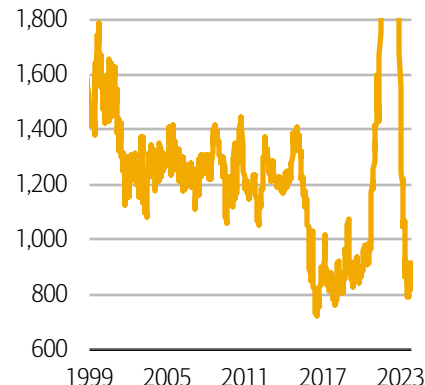


Source: Shanghai Shipping Exchange

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Exhibit 5: CCFI US east coast, 1999-2023

CCFI east coast tracking at 823

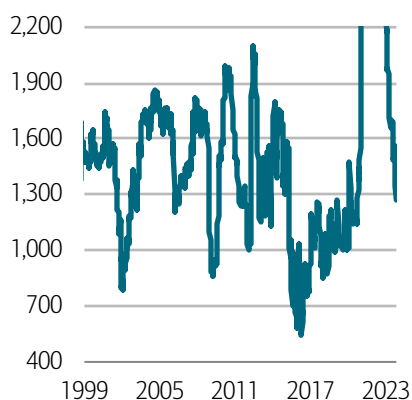


Source: Shanghai Shipping Exchange

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Exhibit 6: CCFI Mediterranean, 1999-2023

CCFI Med tracking at 1,274

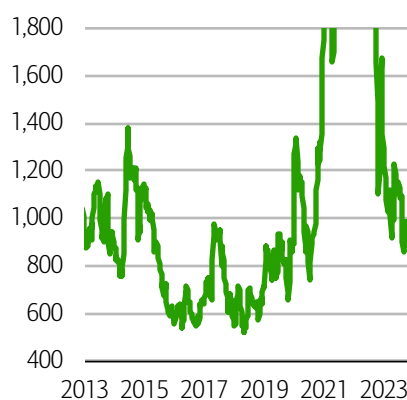


Source: Shanghai Shipping Exchange

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Exhibit 7: CCFI Middle East, 2013-2023

CCFI Middle East at 881

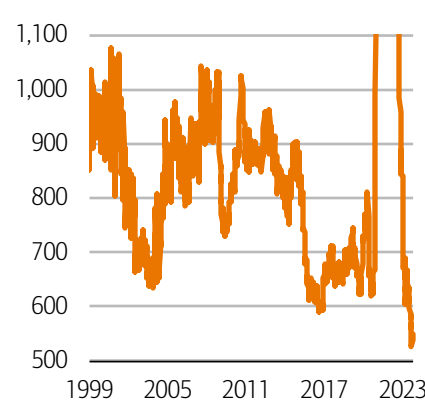


Source: Shanghai Shipping Exchange

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Exhibit 8: CCFI Singapore, 1999-2023

CCFI Singapore at 516



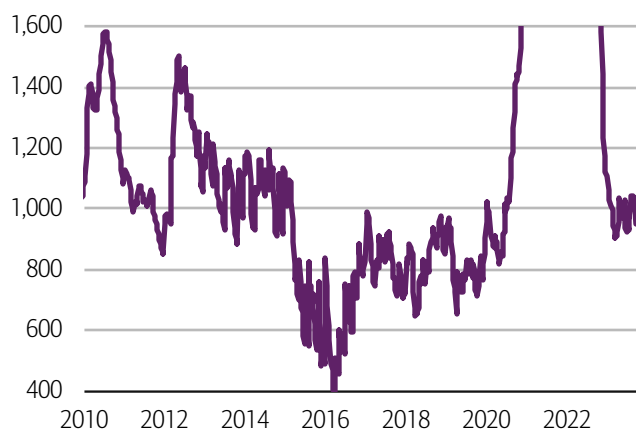
Source: Shanghai Shipping Exchange

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Spot freight rates

Exhibit 9: Shanghai Containerized Freight Index, 2010-23

SCFI at 892 at 25% above 2019



Source: Shanghai Shipping Exchange

Exhibit 10: SCFI quarterly average, 2022-23

SCFI trending down QoQ in early 4Q23

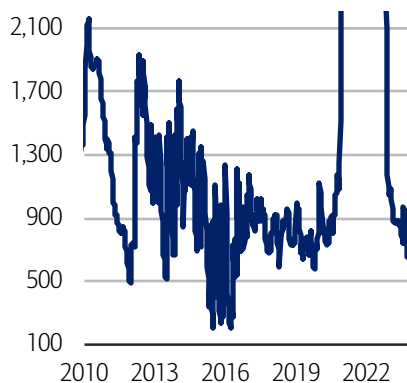
SCFI	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23
SCFI	3,279	1,375	969	983	986	892
SCFI Europe	4,656	1,490	926	848	776	562
SCFI USWC	5,278	1,627	1,265	1,419	1,884	1,735
SCFI USEC	8,557	4,126	2,438	2,366	2,768	2,230
% YoY						
SCFI	-24%	-71%	-80%	-77%	-70%	-35%
SCFI Europe	-36%	-80%	-88%	-86%	-83%	-62%
SCFI USWC	-9%	-76%	-84%	-82%	-64%	7%
SCFI USEC	-20%	-62%	-78%	-77%	-68%	-46%
% QoQ						
SCFI	-22%	-58%	-30%	2%	0%	-10%
SCFI Europe	-22%	-68%	-38%	-8%	-9%	-28%
SCFI USWC	-32%	-69%	-22%	12%	33%	-8%
SCFI USEC	-18%	-52%	-41%	-3%	17%	-19%

Source: Shanghai Shipping Exchange

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Exhibit 11: SCFI Asia-Europe, 2010-23 (USD/TEU)

SCFI Europe at US\$562/TEU

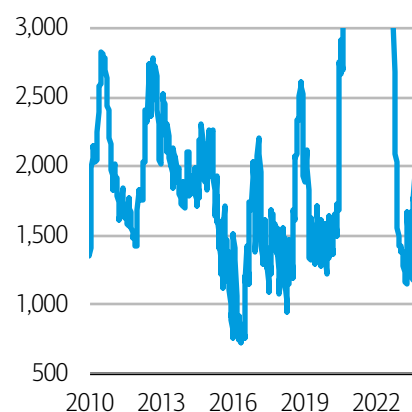


Source: Shanghai Shipping Exchange

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Exhibit 12: SCFI Asia-US west coast, 2010-23 (USD/FEU)

SCFI USWC at US\$1,735 /FEU

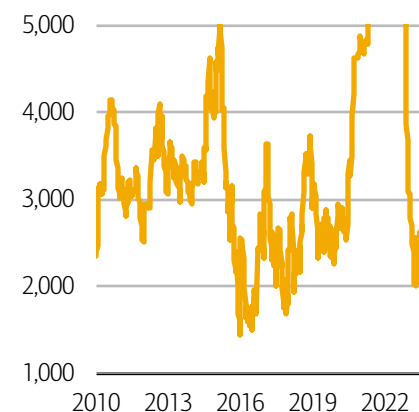


Source: Shanghai Shipping Exchange

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Exhibit 13: SCFI Asia-US east coast, 2010-23 (USD/FEU)

SCFI USEC at US\$2,230/FEU

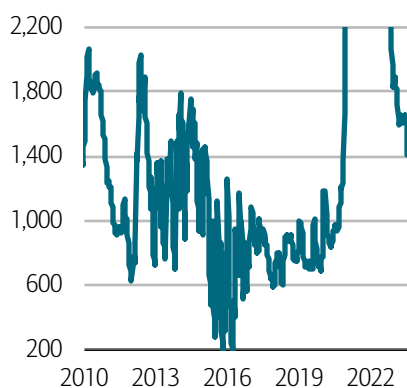


Source: Shanghai Shipping Exchange

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Exhibit 14: SCFI Asia-Mediterranean, 2010-23 (USD/TEU)

SCFI Med at US\$1,112 /TEU

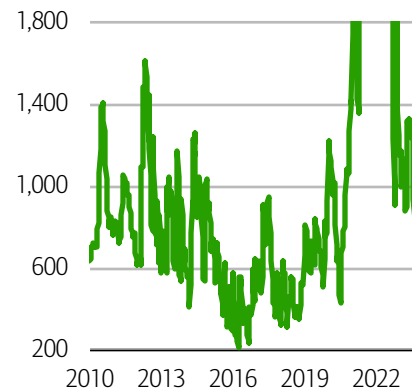


Source: Shanghai Shipping Exchange

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Exhibit 15: SCFI Asia-Middle East, 2010-23 (USD/TEU)

SCFI Middle East US\$841/TEU

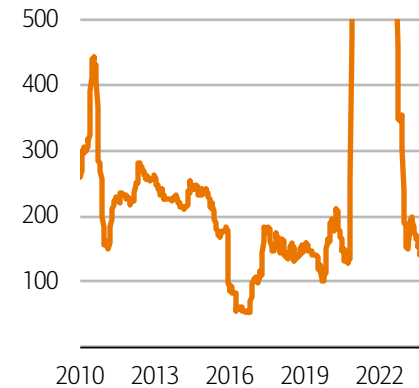


Source: Shanghai Shipping Exchange

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Exhibit 16: SCFI Asia-Singapore, 2010-23 (USD/TEU)

SCFI Singapore at US\$180 /TEU



Source: Shanghai Shipping Exchange

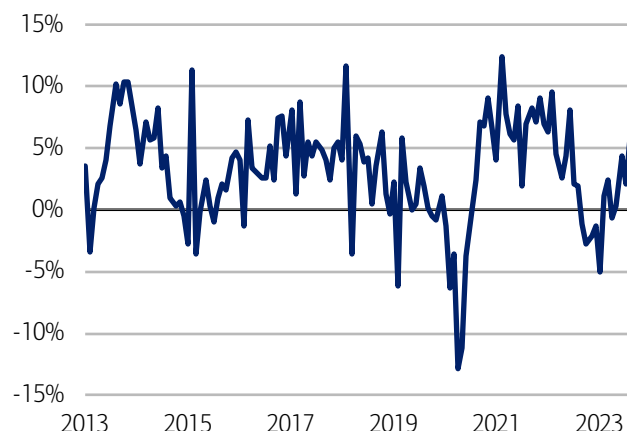
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World trade trends

Exhibit 17: Global container volume growth (YoY %)*

World trade 1.5% above 2019 levels in August

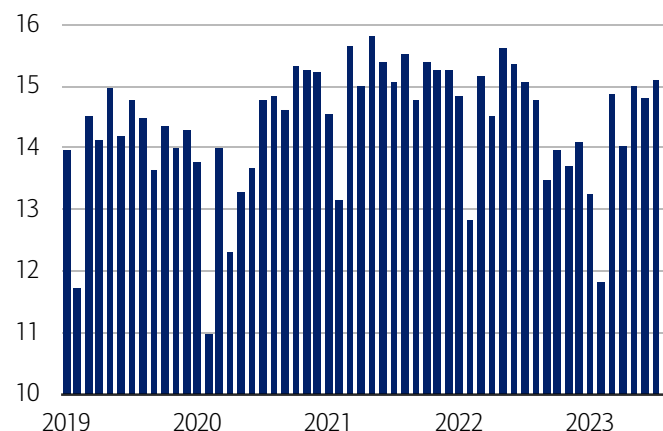


Source: CTS. * 2021 data compared to 2019

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Exhibit 18: Global monthly container volumes (mn TEU), 2019-23

World trade seasonally rebounded in May-August 2023

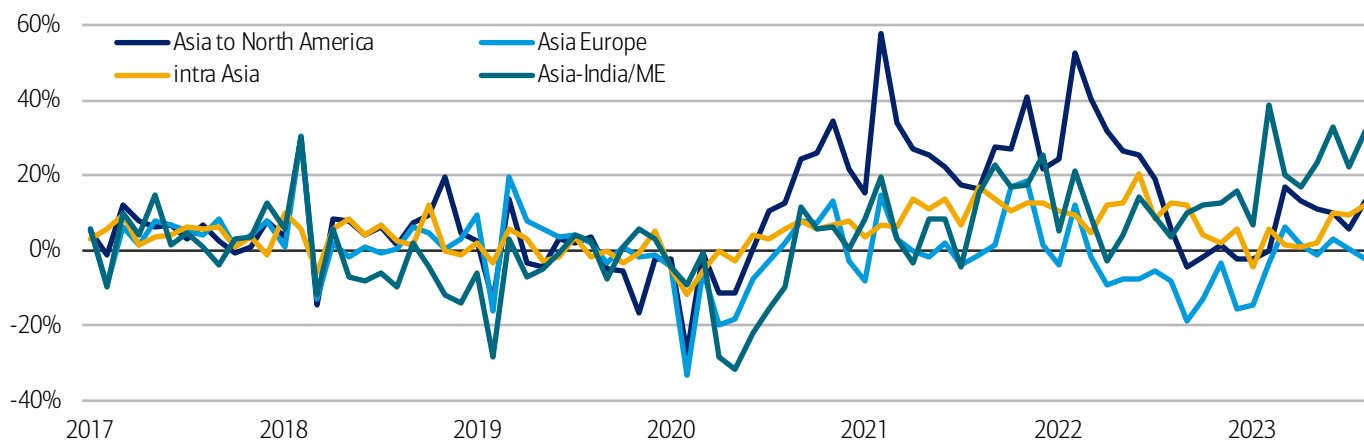


Source: CTS

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Exhibit 19: Container volumes by route (% YoY, 2017-23*)

Key trade lane volumes are all above 2019 levels except Asia-Europe



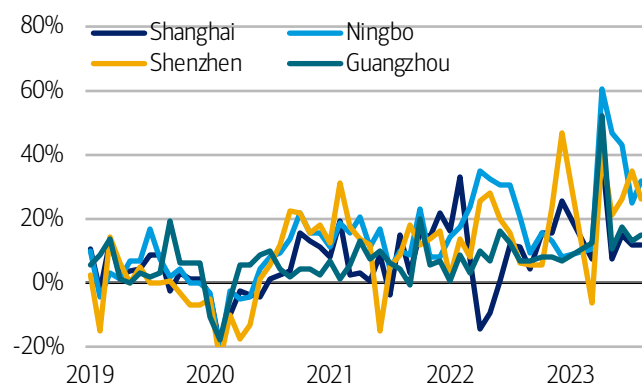
Source: CTS *2021-23 relative to 2019 levels

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Chinese trade trends

Exhibit 20: Chinese monthly port data (% YoY), 2019-23

Shanghai volumes relatively flat MoM in August

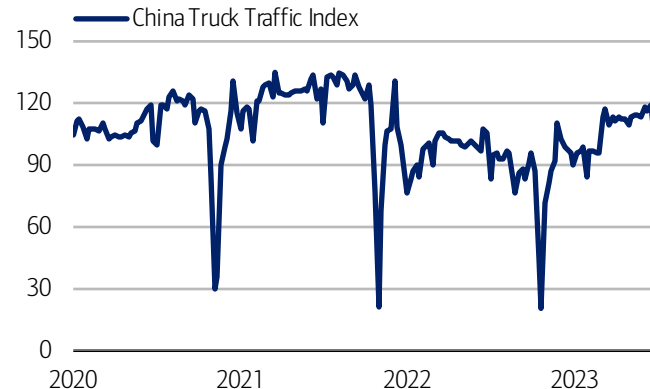


Source: Company reports

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Exhibit 21: China truck traffic index, 2020-23

China trucking demand has seen October holiday disruptions



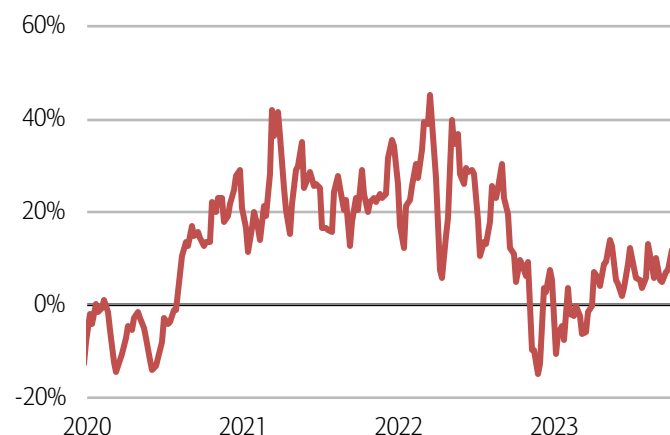
Source: G7

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US high frequency container volumes

Exhibit 22: US weekly container imports vs 2019 levels

US weekly imports trending +12% above 2019 levels in early October

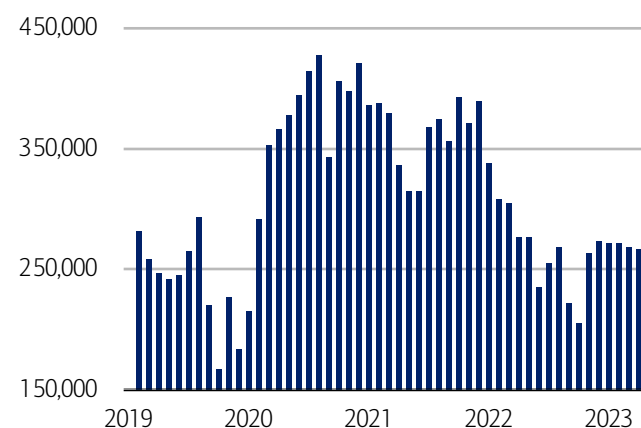


Source: PIERIS

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Exhibit 24: US furniture monthly imports (TEU), 2019-23

US furniture imports around 270k TEU/month in September

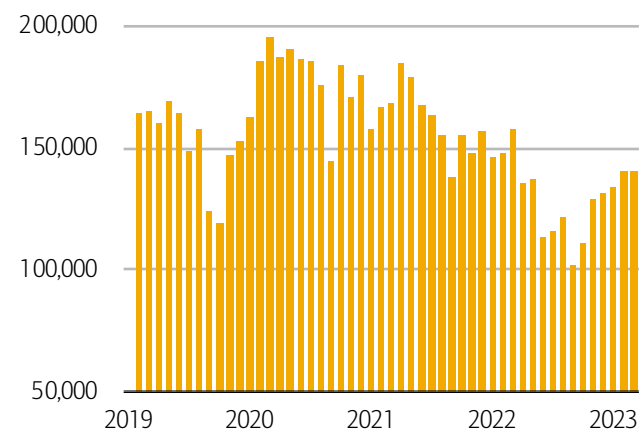


Source: PIERIS

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Exhibit 26: US electronic monthly imports (TEU), 2019-23

US electronics imports trending at 150k TEU/month in September

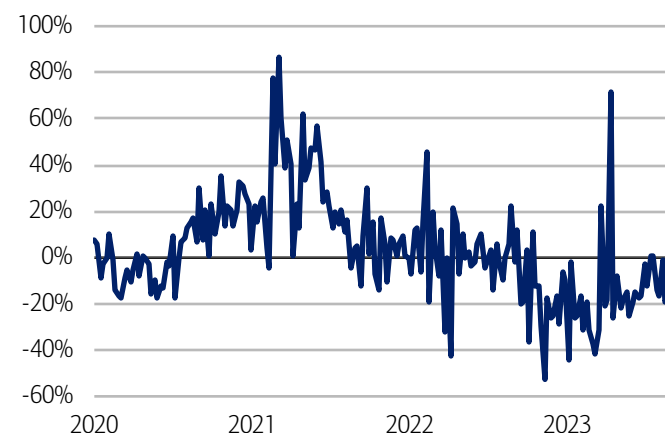


Source: PIERIS

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

US weekly imports 6.2% YoY up in early October

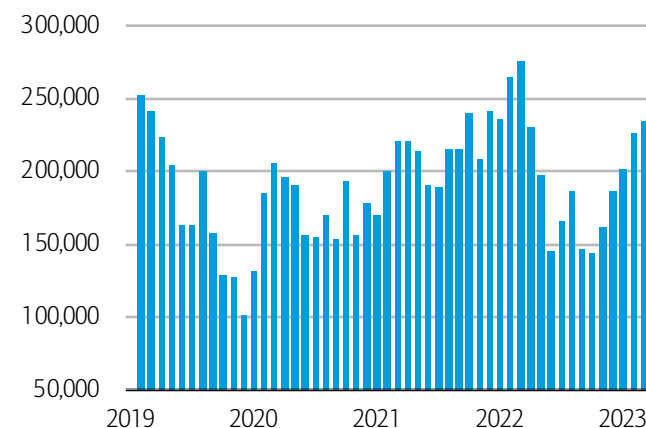


Source: PIERIS

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Exhibit 25: US apparel & footwear monthly imports (TEU), 2019-23

US apparel & footwear imports near 230k TEU in September

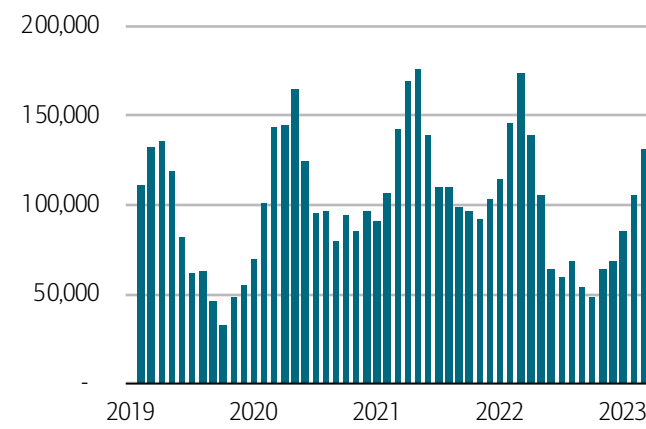


Source: PIERIS

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Exhibit 27: US toy & leisure monthly imports (TEU), 2019-23

US toy & leisure imports at 135k TEU in September



Source: PIERIS

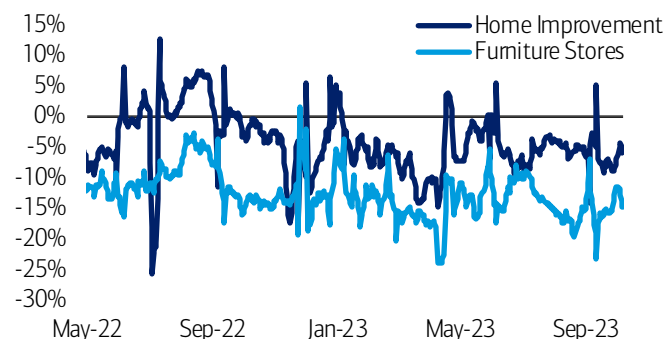
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US consumer reads

For more on BAC aggregated credit and debit card spending data, and a detailed explanation of the methodology, disclaimers, and limitations in connection with such data see our note: [BofA on USA](#)

Exhibit 28: 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 Oct 7

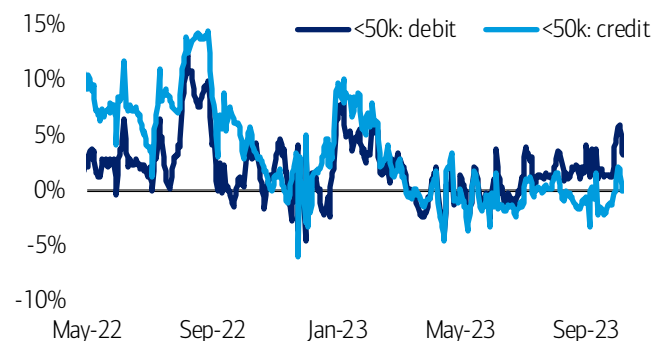


Source: BAC internal data

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Exhibit 30: 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 Oct 7

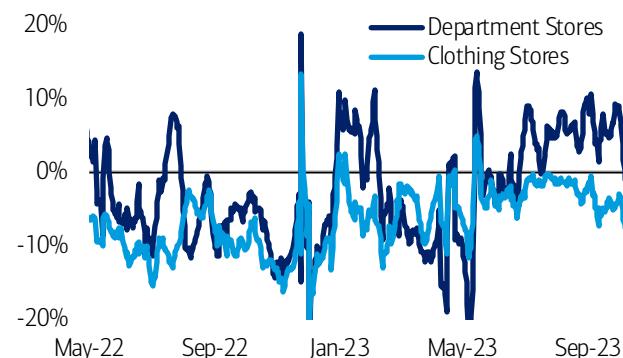


Source: BAC internal data

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Exhibit 29: 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 has largely been negative for the last year



Source: BAC internal data

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Exhibit 31: Aggregated monthly card spending per HH by major category (%m/m, SA)

Card spending in September was a mixed bag across categories

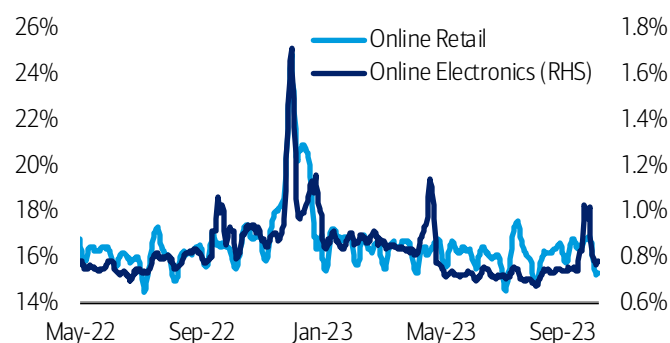
	Sep-23	Aug-23	Jul-23	Jun-23	May-23	Apr-23
Gas	2.1%	6.0%	1.6%	0.0%	-3.1%	1.5%
Furniture	-1.5%	-2.5%	-2.6%	-0.4%	1.1%	-0.4%
Home improvement	-1.3%	-1.0%	-0.1%	-1.0%	1.0%	0.0%
Clothing	-1.3%	-1.8%	0.8%	-1.6%	1.2%	-0.6%
Grocery	-0.3%	0.0%	-0.5%	0.5%	1.4%	-0.1%
General Merchandise	0.1%	-0.5%	1.0%	-0.7%	0.9%	0.5%
Department Store	0.0%	-2.9%	0.3%	-1.5%	0.5%	-0.4%
Restaurants	0.1%	-0.4%	0.5%	0.0%	0.0%	0.3%
Lodging	-0.2%	-0.7%	-1.6%	0.0%	0.3%	-0.8%
Airlines	-0.4%	-0.9%	1.4%	-1.3%	1.0%	-1.9%
Total online retail (card not present)	0.8%	-0.4%	1.6%	0.4%	-0.2%	1.0%

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

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Exhibit 32: Online retail and online electronic (card not present) spending per HH as a share of total card spending (% , 7-day ma)

The share of online retail spending was 15.3% in the week ending Oct 7



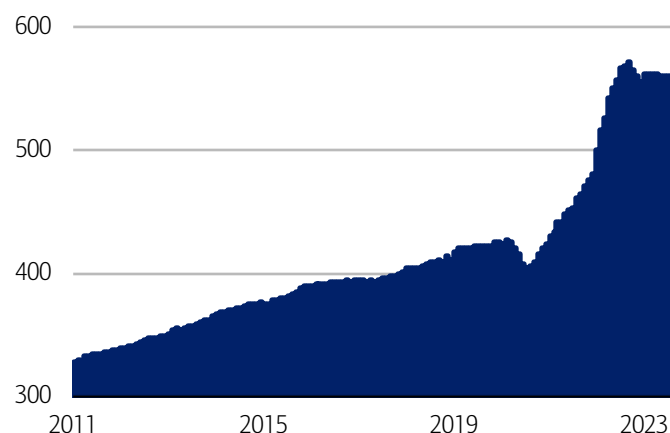
Source: BAC internal data

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US retail inventory levels

Exhibit 33: US retail (ex-auto) inventories (US\$bn), 2011-23

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

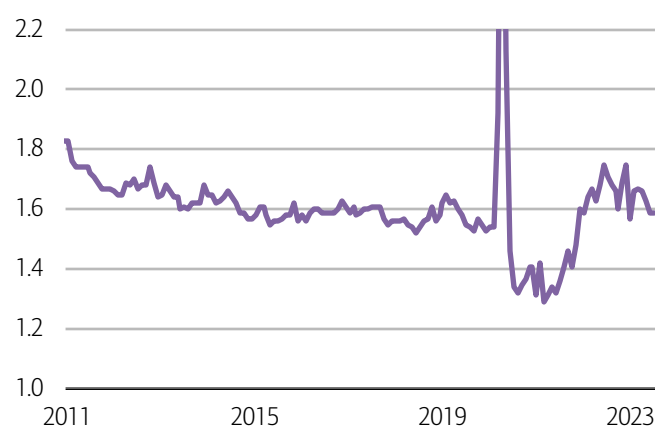


Source: Bloomberg

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Exhibit 35: Furniture – adjusted inventory to sales, 2011-23

Furniture inventory-to-sale still elevated suggesting more destocking ahead



Source: Bloomberg

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Exhibit 34: US retail (ex-auto) inventory to sales ratio, 2011-23

Retail adjusted inventories to sales at 1.2x back to historical average

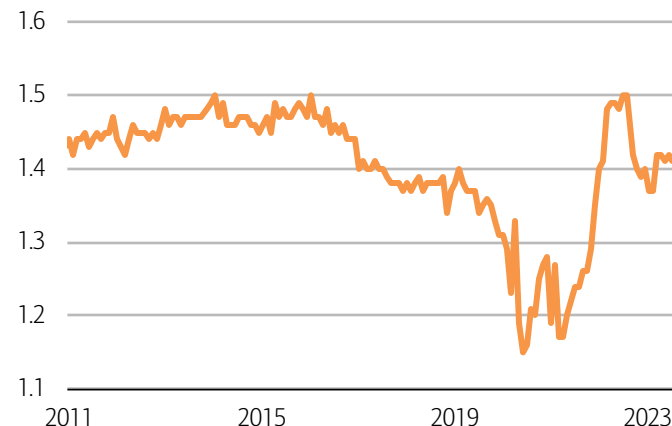


Source: Bloomberg

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Exhibit 36: General merchandise – adjusted inventory to sales, 2011-23

General merchandise inventory-to-sales still above 2019

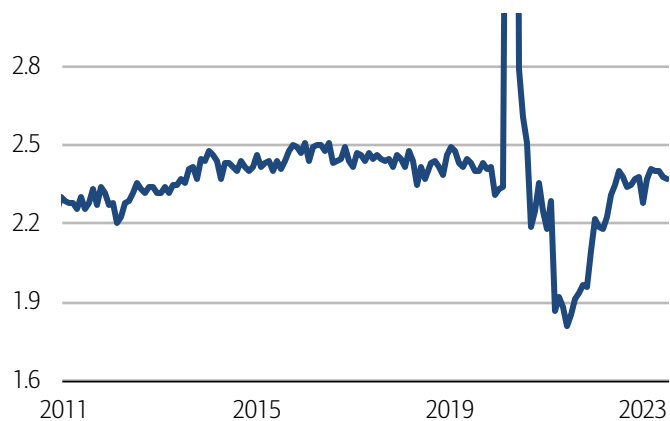


Source: Bloomberg

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Exhibit 37: Clothing – adjusted inventory to sales, 2011-23

Clothing inventory to sales look more normal back to 2019 levels

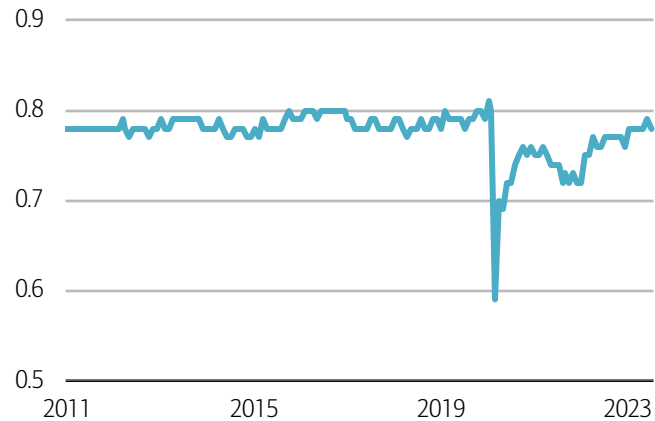


Source: Bloomberg

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Exhibit 38: Food & Beverage – adjusted inventory to sales, 2011-23

Food & beverage inventory to sales still below pre-COVID levels



Source: Bloomberg

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Port congestion & idling

Exhibit 39: Global port congestion - % of fleet, 2020-23

Port congestion at 5.3% of fleet



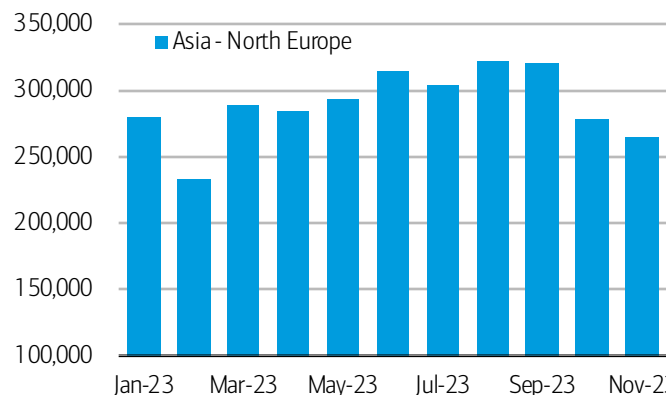
Source: Linerlytica

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Weekly sailing capacity on key trunk routes

Exhibit 41: Weekly vessel capacity – Asia to North Europe (TEU), 2023

Weekly capacity likely to trend lower in October / November



Source: Linerlytica

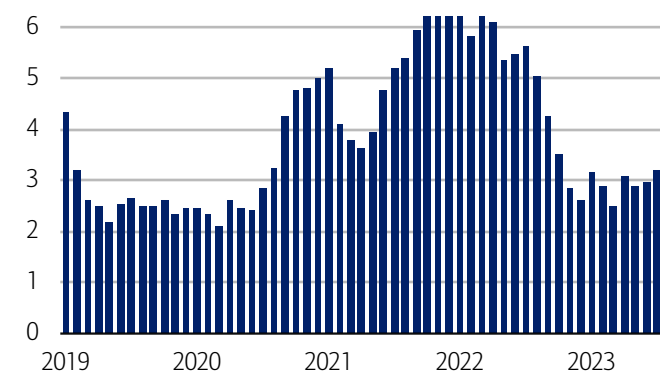
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US inland congestion trackers

Below shows how quickly container boxes move from the terminal yard to inland transport at Port of LA/Long Beach.

Exhibit 43: US West Coast ports – average box dwell time (days)

Boxes are waiting at terminal yards for 2.9 days before pickup

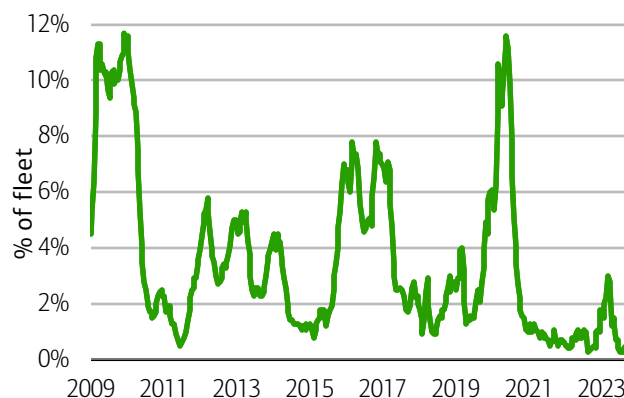


Source: PMSA

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Exhibit 40: Global container vessel idling rate (%), 2009-23

Idling rate slightly up to 0.9% of the fleet

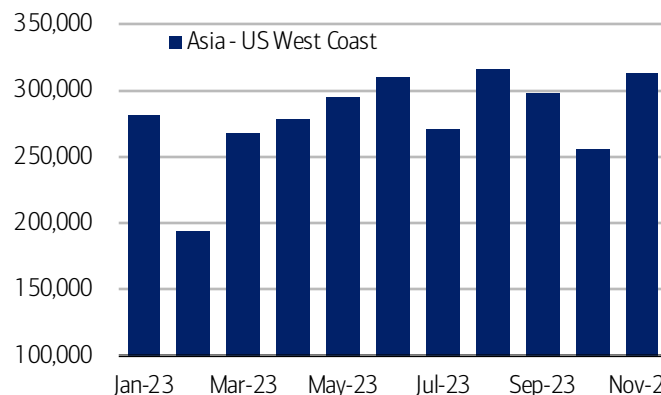


Source: Linerlytica, Alphaliner

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Exhibit 42: Weekly vessel capacity – Asia to US west coast (TEU), 2023

Capacity remain over 300,000 TEU/week in November

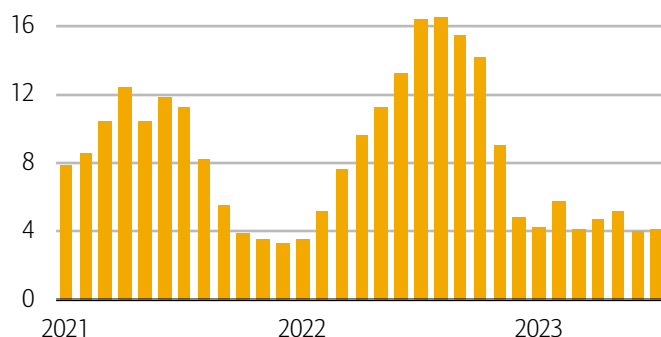


Source: Linerlytica

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Exhibit 44: US West Coast ports – average rail box dwell time (days)

Boxes are waiting at terminal yards for 4.4 days before rail pickup up



Source: PMSA

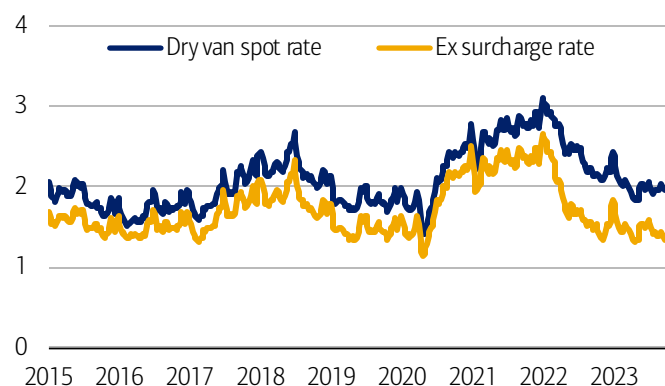
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US trucking & Panama Canal congestion

Below shows US spot trucking rates and container congestion at the Panama Canal:

Exhibit 45: Spot trucking rates (US\$/mile), 2015-23

Spot trucking rates relatively flat in August / September

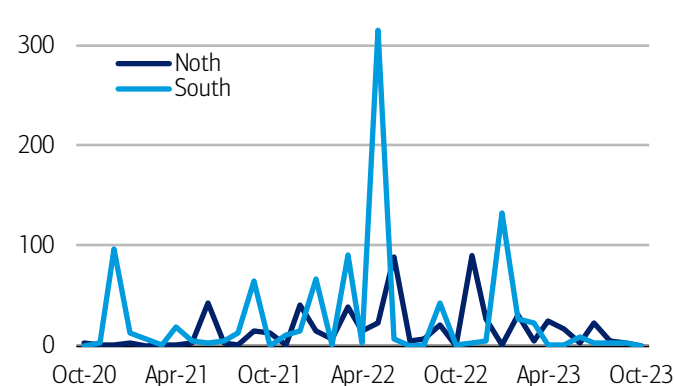


Source: Bloomberg

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Exhibit 46: Panama Canal unscheduled container waiting time (hours)

No wait for unscheduled and scheduled ships in October



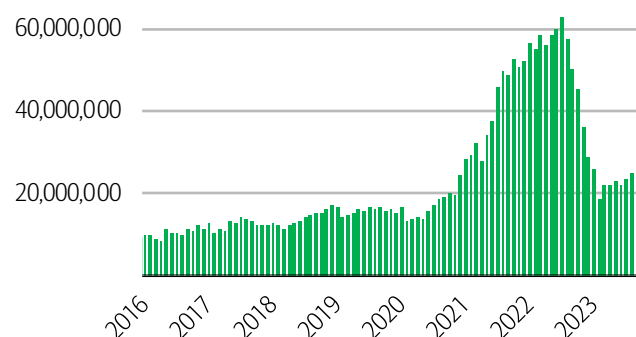
Source: Panama Canal Authority

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Container liner monthly revenue

Exhibit 47: Evergreen – monthly revenue (NT\$)

Evergreen September monthly revenues: -51% YoY, -2% MoM

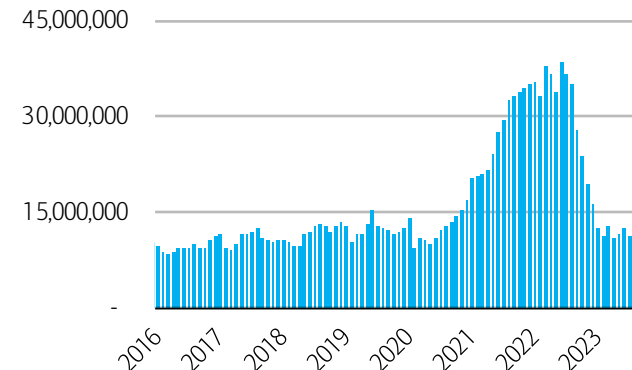


Source: Company reports

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Exhibit 48: Yang Ming – monthly revenue (NT\$)

Yang Ming August monthly revenues: -56% YoY, -10% MoM



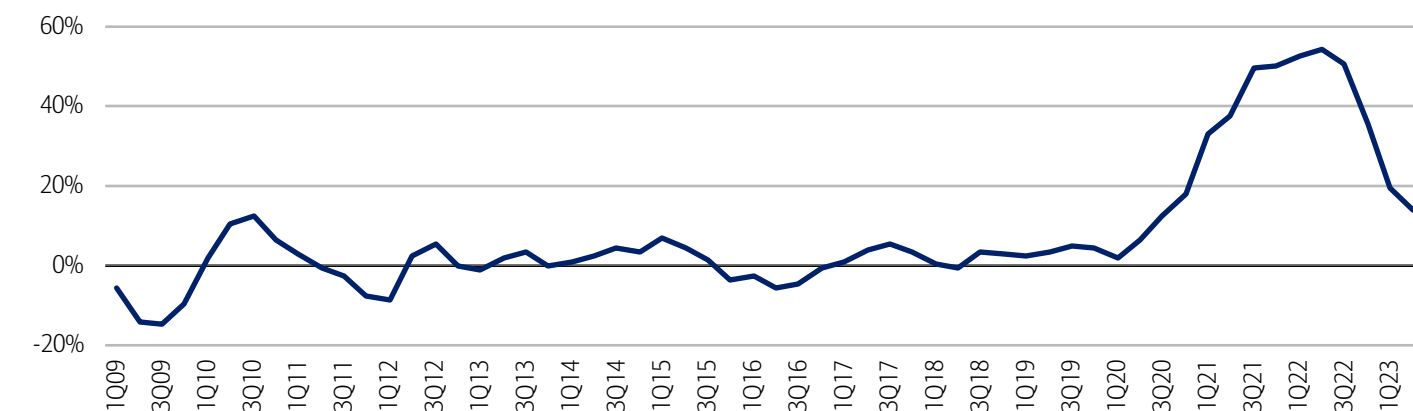
Source: Company reports

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Container liner average EBIT margins

Exhibit 49: Container liner average quarterly EBIT margin, 2009-23

2Q23 operating profit margin of 14%



Source: Linerlytica

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Vessel supply-side trends

Exhibit 50: Container shipping orderbook to fleet, 1996-2023

Container shipping orderbook stands at around 28% of fleet right now

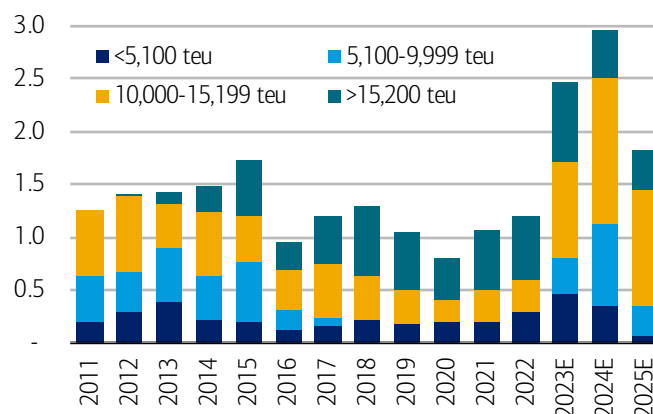


Source: Clarksons

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Exhibit 51: Delivery by vessel size (mn TEU), 2011-2025E

Deliveries ramping into 2024 with ~2.9mn TEU for delivery

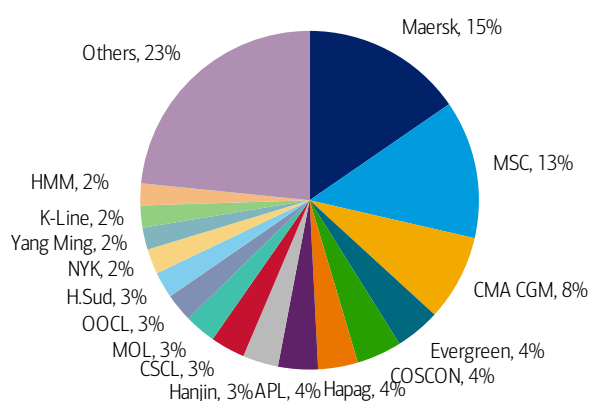


Source: Alphaliner

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Exhibit 54: Container liner capacity share in 2013

Top 16 carriers in 2013 = 77% market share

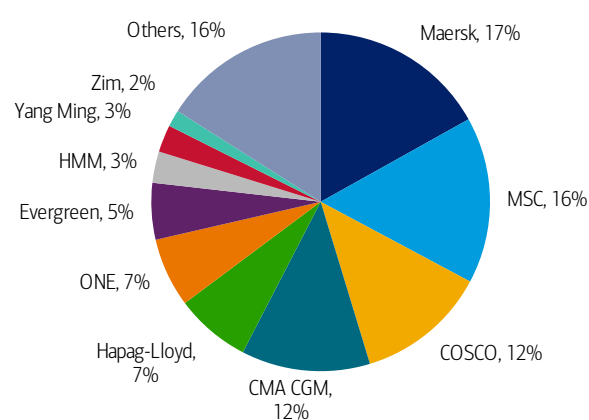


Source: Alphaliner

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Exhibit 55: Container liner capacity share in 2021

Top 10 carriers in 2021 = 85% market share

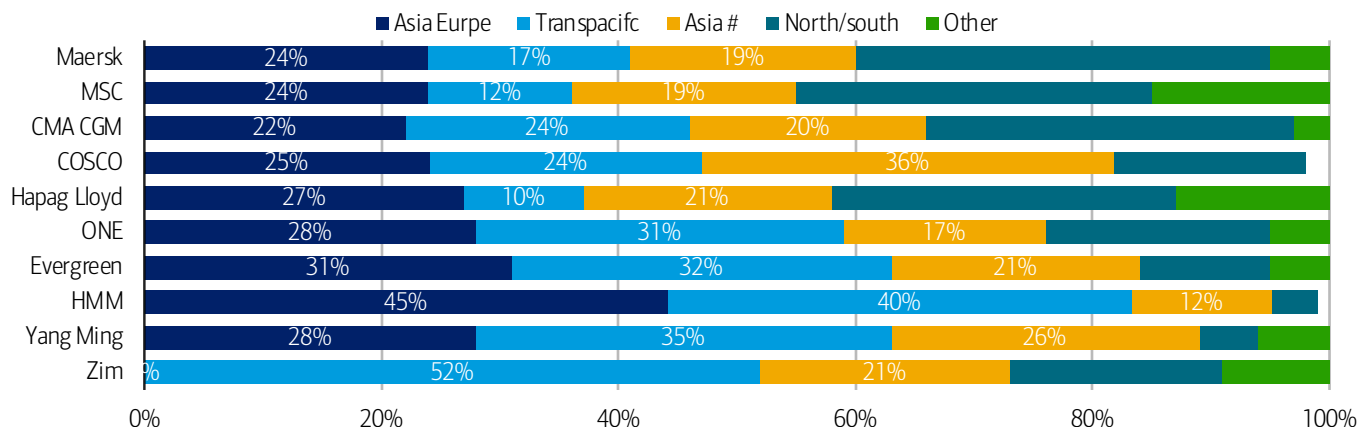


Source: Alphaliner

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Exhibit 54: Container liner capacity by route

Container liner capacity deployment by route

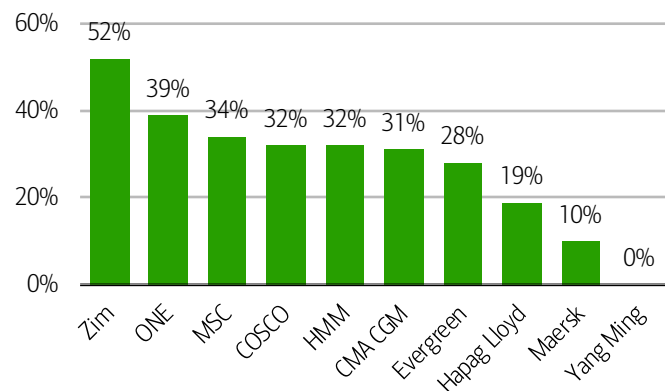


Source: Alphaliner. *Asia includes Middle East, India, Australia

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Exhibit 55: Container liners – orderbook to fleet

Larger orderbooks for Zim, ONE, and MSC



Source: Linerlytica

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Container shipping costs**Exhibit 57: Average containership charter rate (US\$/day), 2008-23**

Average charter rates now below US\$20K/day in October



Source: Clarksons

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Container vessel speeds & scrapping**Exhibit 59: Container vessel average sailing speed (knots), 2013-23**

Container vessels now sailing below 14 knots

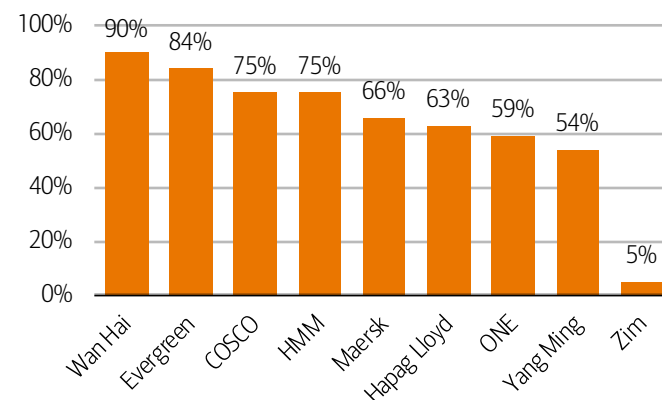


Source: Clarksons

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Exhibit 56: Container liners - % of fleet which is owned/finance lease

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

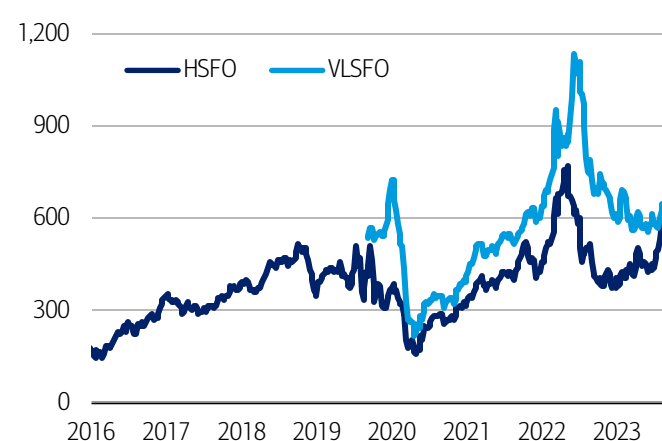


Source: Linerlytica

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Exhibit 58: Singapore bunker price (US\$/tonne), 2016-23

VLSFO ~US\$650/tonne and HSFO ~US\$485/tonne

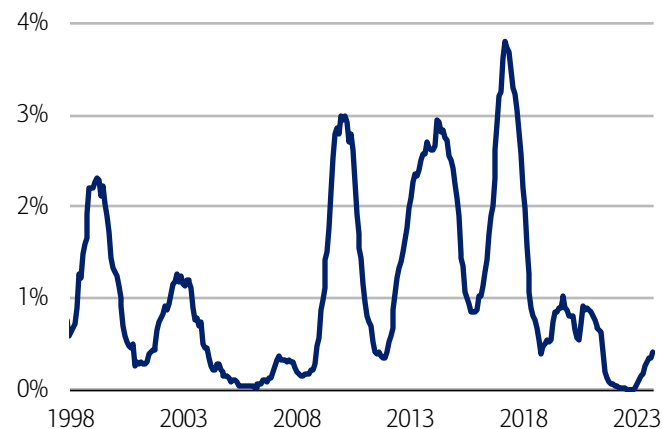


Source: Clarksons

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Exhibit 60: Container scrap rate (%) – 1998-2023

Scraping rate down to below 0.5% of fleet



Source: Clarksons

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Container shipping - demand & supply outlook

Exhibit 63: 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
Demand growth (TEU)	5.3%	1.3%	3.0%	6.6%	5.2%	2.5%	-0.7%	6.7%	0.8%	0.3%	3.4%	3.0%
New vessel deliveries	8.6%	9.4%	4.7%	5.9%	6.1%	4.7%	3.7%	4.5%	4.4%	7.9%	10.1%	6.4%
Demolition	-2.1%	-0.1%	-2.9%	-2.0%	-0.2%	-0.9%	-0.7%	-0.1%	-0.1%	-1.0%	-1.5%	-1.5%
Net Slot Capacity Growth	6.5%	9.4%	1.7%	3.9%	5.9%	3.9%	3.0%	4.4%	4.3%	6.9%	8.6%	4.9%
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%	1.8%	0.0%
"In service" capacity growth (TEU)	7.9%	8.7%	-1.7%	6.7%	7.5%	2.6%	-1.8%	4.4%	-0.5%	12.2%	10.4%	4.9%
Effective Demand / Supply balance	-2.6%	-7.4%	+4.7%	-0.1%	-2.3%	-0.1%	+1.1%	+2.3%	+1.3%	-11.9%	-7.0%	-1.9%

Source: BofA Global Research estimates, Linerlytica

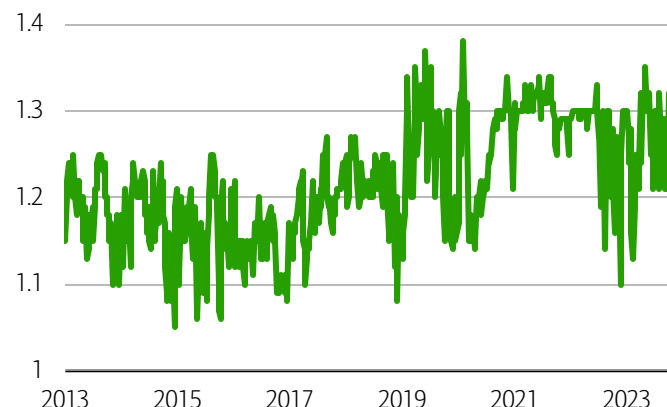
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Tanker shipping

Freight rates

Exhibit 62: VLCC supply vs demand in Middle East #, 2013-23

VLCC supply vs demand in Middle East #

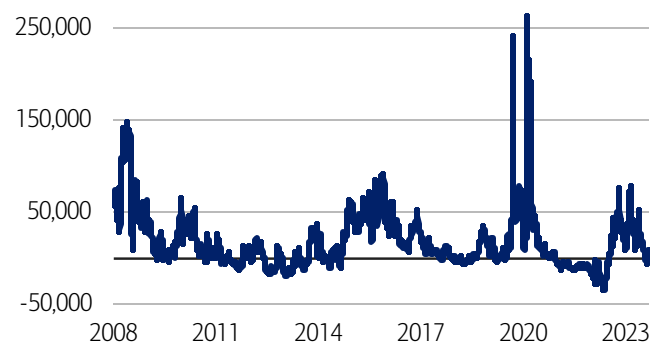


Source: Bloomberg, # 1 indicates equal number of VLCC supply vs demand for next 30 days, 1.1 indicates 10% surplus of VLCC relative to demand in coming 30 days.

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Exhibit 64: VLCC freight rates (US\$/day), 2008-23

Baltic VLCC rates making recovery into October

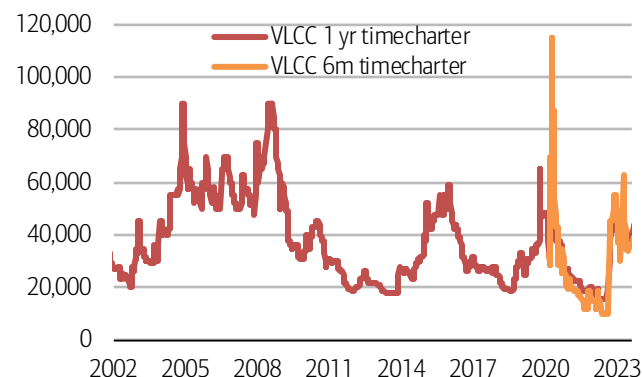


Source: Clarksons

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Exhibit 66: VLCC time charter rates (US\$/day), 2002-23

One year VLCC time charter rates holding around US\$37k per day



Source: Clarksons

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Exhibit 65: Average quarterly tanker rates (US\$/day), 2022-23

Average quarterly tanker rates

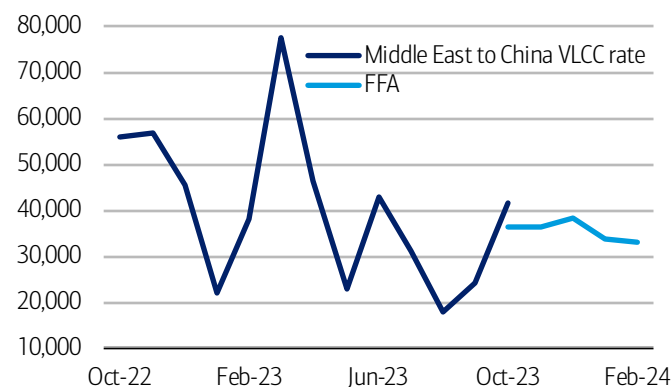
Date	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23
VLCC	9,747	42,823	34,498	25,984	8,747	-462
Suezmax	21,742	21,742	21,742	21,742	21,742	21,742
Aframax	21,860	21,860	21,860	21,860	21,860	21,860
MR	9,749	9,749	9,749	9,749	9,749	9,749
LR2	20,292	20,292	20,292	20,292	20,292	20,292
% YoY						
VLCC	-199%	-633%	-295%	-220%	-10%	-101%
Suezmax	-1959%	1937%	244%	38%	-65%	-85%
Aframax	7427%	964%	197%	28%	-60%	-76%
MR	586%	428%	199%	-24%	-38%	-28%
LR2	67%	135%	149%	78%	-2%	-17%
% QoQ						
VLCC	-145%	339%	-19%	-25%	-66%	-105%
Suezmax	41%	76%	-16%	-34%	-64%	-26%
Aframax	30%	70%	-18%	-30%	-59%	-1%
MR	18%	4%	-30%	-12%	-4%	21%
LR2	25%	37%	9%	-5%	-31%	16%

Source: Clarksons, Note: 3Q23 data is average of Jul, Aug, Sept data

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Exhibit 65: VLCC freight forward agreement rates (US\$/day)

Forward curve at ~US\$37k/day into 4Q23



Source: Clarksons, Baltic Exchange

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Exhibit 67: Suezmax time charter rates (US\$/day), 2002-23

One year Suezmax time charter rates around US\$39k per day

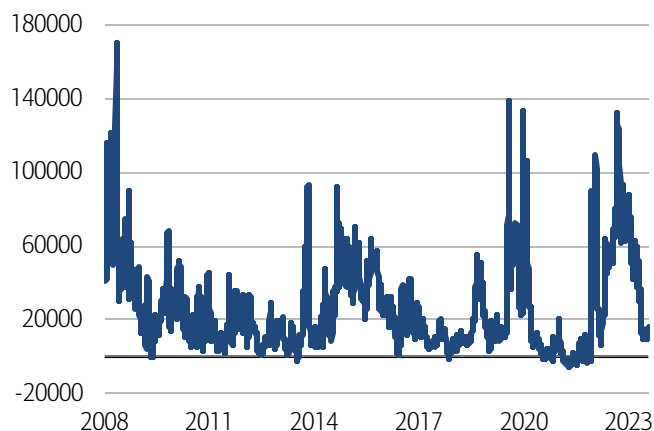


Source: Clarksons

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Exhibit 68: Suezmax freight rates (US\$/day), 2008-2023

Baltic Suezmax spot around US\$13k per day

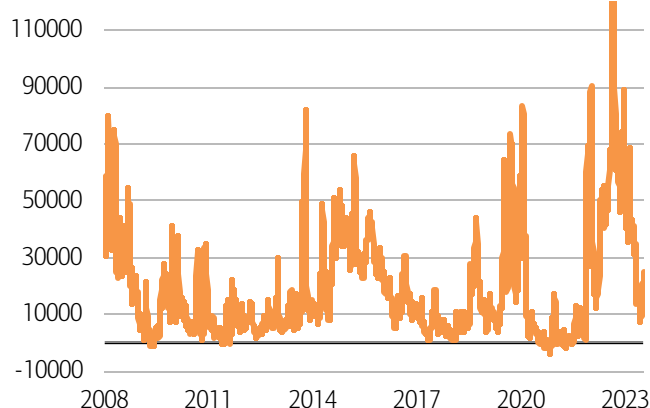


Source: Clarksons

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Exhibit 69: Aframax freight rates (US\$/day), 2008-23

Aframax rates down below US\$19k per day



Source: Clarksons

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Crude oil demand**Exhibit 70: Seaborne crude oil volumes (% YoY), 2015-23**

Seaborne crude tanker volumes recovering to pre COVID levels

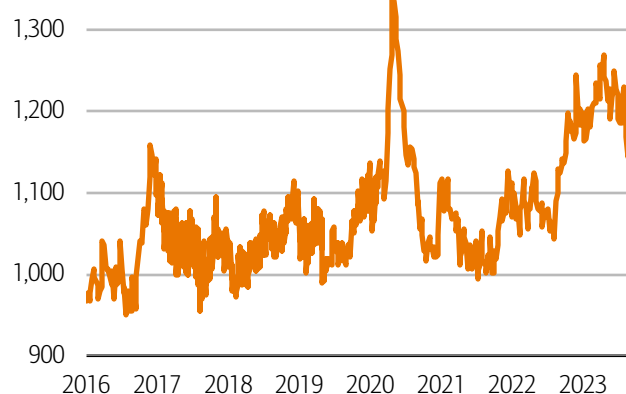


Source: Clarksons

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Exhibit 71: Crude tanker barrels on the water (mn bbl), 2016-23

Crude tanker demand has come off the peaks

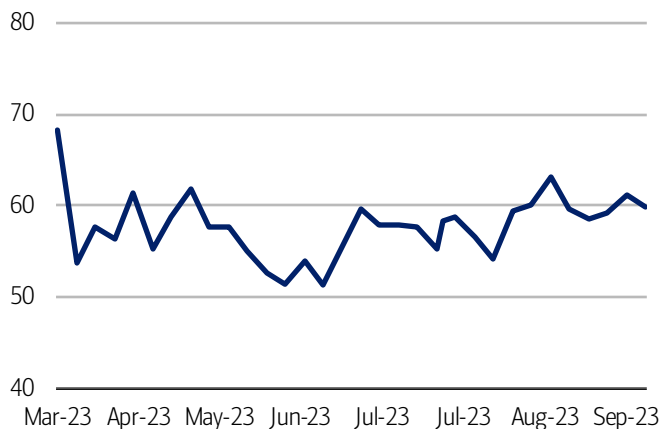


Source: Clarksons

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Exhibit 72: Weekly crude oil exports (mn b/d), 2023

Global crude oil exports staying robust

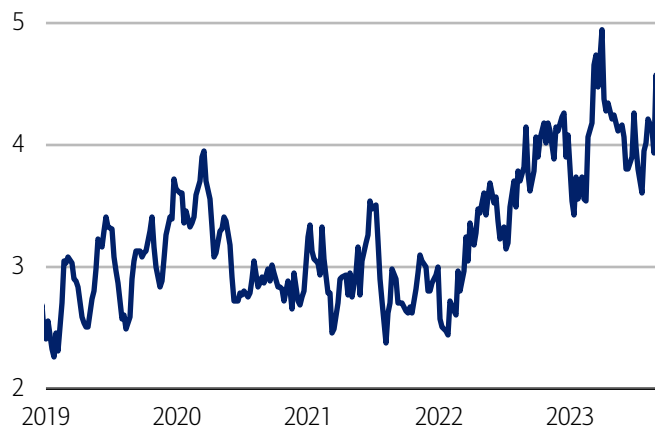


Source: Bloomberg

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Exhibit 73: US crude exports (mn b/d) – 4w MA, 2019-23

US crude oil exports started to recover in August / September



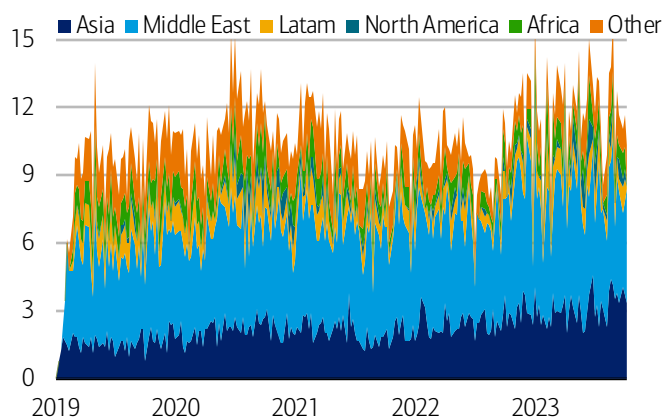
Source: Bloomberg

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Exhibit 74: Chinese weekly crude imports (mn b/d), 2019-23

Chinese imports down from the peak

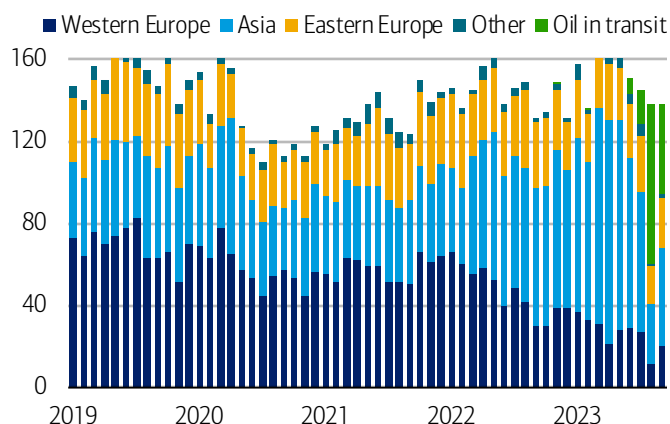


Source: Bloomberg

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Exhibit 76: Russian seaborne crude exports (mn bbl / month), 2019-23

Total Russian crude exports still robust

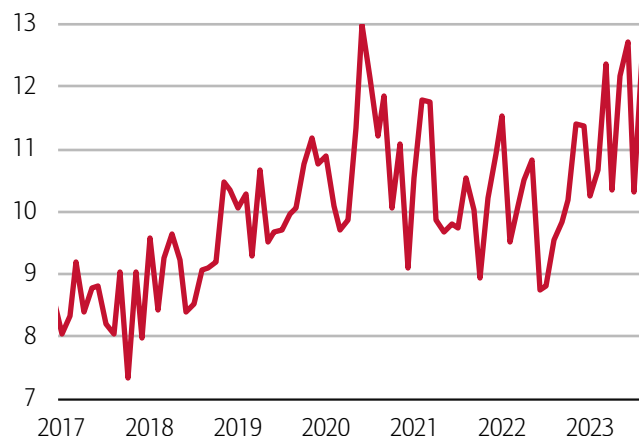


Source: Bloomberg

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Exhibit 75: Chinese crude imports (mn b/d), 2017-23

China crude imports staying volatile

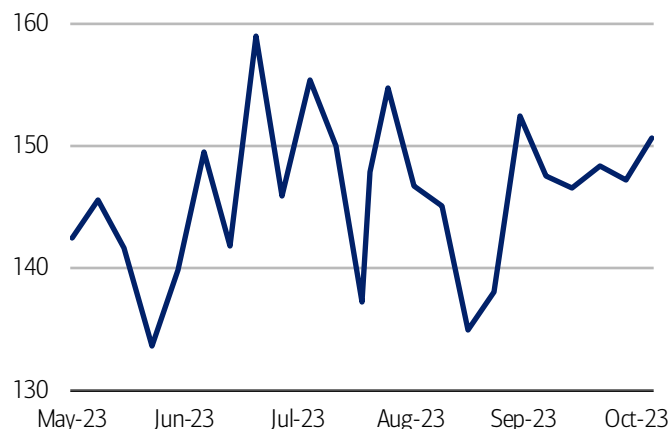


Source: Bloomberg

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Exhibit 77: Middle east crude exports (mm bbl / week), 2023

Middle East exports started to pick up in early October



Source: Bloomberg

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Tanker supply & scrap**Exhibit 78: Crude tanker orderbook as % of fleet, 1996-23**

Crude tanker orderbook to fleet ~4%



Source: Clarksons

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Exhibit 79: Crude tanker storage as % of fleet, 2018-23

Tanker storage now below 3.0% of fleet

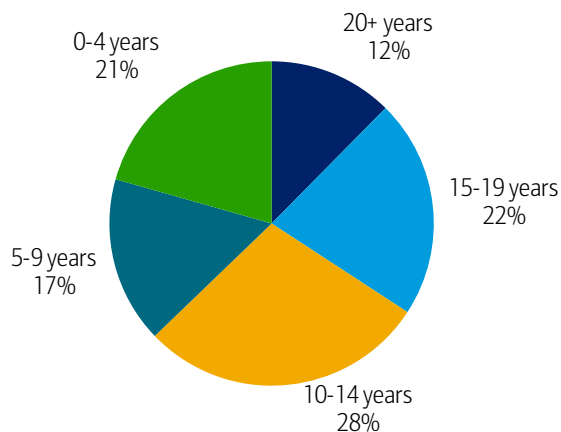


Source: Clarksons

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Exhibit 84: Crude tanker – age distribution, 2023

34% of fleet is older than 15 years

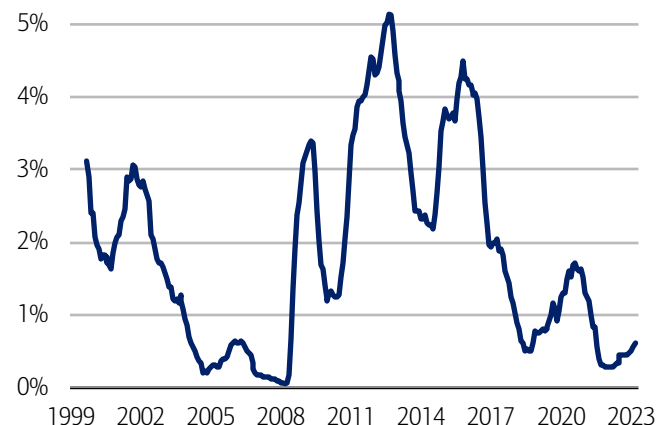


Source: Clarksons

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Exhibit 81: Tanker scrap rate (%) – 1999-2023

Scrapping rate down to around 0.65% of fleet



Source: Clarksons

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Crude tanker demand & supply**Exhibit 86: 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%
Demand / supply balance	-0.6%	+1.9%	-1.9%	-0.9%	+2.3%	-4.8%	-7.6%	-3.6%	+3.8%	+4.2%	+4.6%	+0.7%
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
Fleet, Ending, Dwt mn **	341	347	368	386	388	417	431	442	446	453	454	458
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%
Effective supply 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%
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

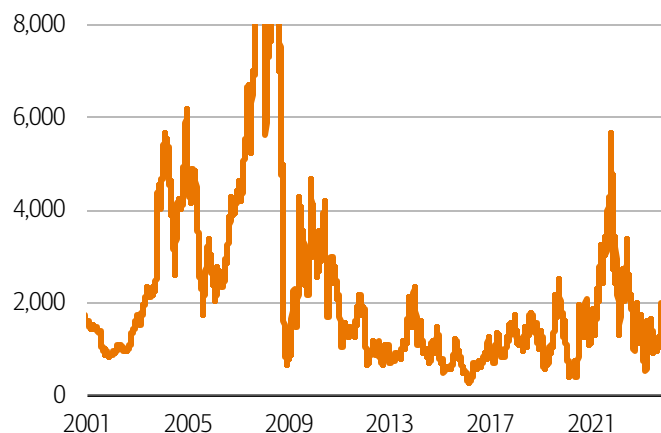
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Dry bulk shipping

Freight rates

Exhibit 83: Baltic Dry Index, 2002-23

BDI at around 2,000

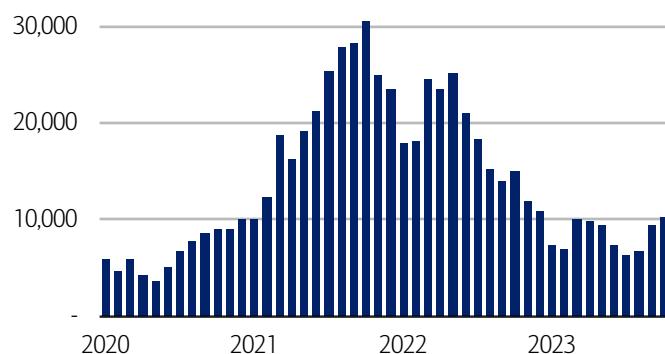


Source: Clarksons

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Exhibit 85: Handysize spot monthly average (US\$/day), 2020-23*

Spot handysize averaged US\$10.3k/day in October



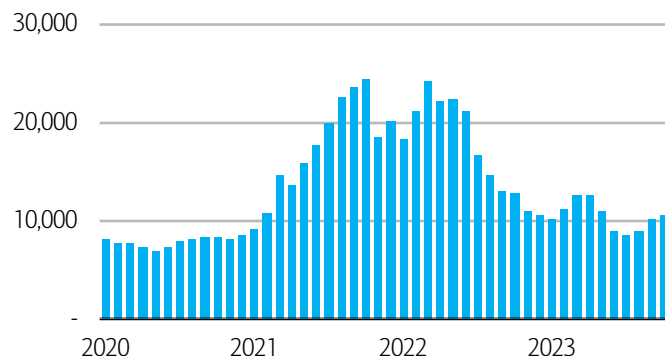
Source: Clarksons, BofA Global Research estimates

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

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Exhibit 87: Handysize 1yr TC monthly average (US\$/day), 2020-23*

1yr time charter handysize averaging US\$10.7k/day in October



Source: Clarksons, BofA Global Research estimates

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

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Exhibit 88: Baltic average rates (US\$/day), 2022-23

Dry bulk quarterly average rates

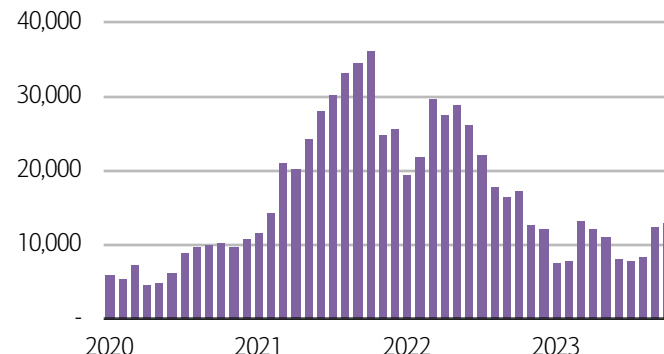
Date	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23
BDI	2,530	1,870	1,523	1,011	1,313	1,194	1,885
Capesize	21,599	16,906	14,906	9,144	15,561	13,407	25,949
Panamax 82	28,901	18,402	16,050	11,326	12,248	11,890	14,491
Supramax 58	27,566	21,396	14,837	10,171	10,763	10,028	13,753
Handysize 38	26,618	21,514	15,028	9,702	10,414	8,863	12,204
% YoY							
BDI	-9%	-50%	-56%	-49%	-48%	-36%	24%
Capesize	-31%	-60%	-65%	-38%	-28%	-21%	74%
Panamax 82	12%	-45%	-45%	-51%	-58%	-35%	-10%
Supramax 58	8%	-38%	-51%	-60%	0%	0%	0%
Handysize 38	18%	-33%	-52%	-60%	-61%	-59%	-19%
% QoQ							
BDI	28%	-26%	-19%	-34%	30%	-9%	58%
Capesize	46%	-22%	-12%	-39%	70%	-14%	94%
Panamax 82	24%	-36%	-13%	-29%	8%	-3%	22%
Supramax 58	10%	-22%	-31%	-31%	6%	-7%	37%
Handysize 38	11%	-19%	-30%	-35%	7%	-15%	38%

Source: Clarksons

BofA GLOBAL RESEARCH

Exhibit 86: Supramax spot monthly average (US\$/day), 2020-23 *

Spot supramax averaged US\$13.0k/day in October



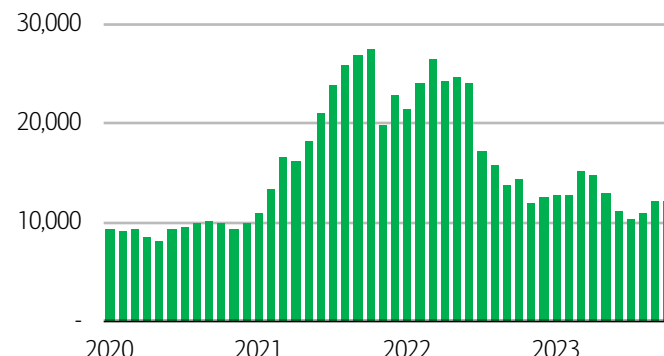
Source: Clarksons, BofA Global Research estimates

* Commission adjusted to be comparable to PacBasin achieved rates

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Exhibit 88: Supramax 1yr TC monthly average (US\$/day), 2020-23 *

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



Source: Clarksons, BofA Global Research estimates

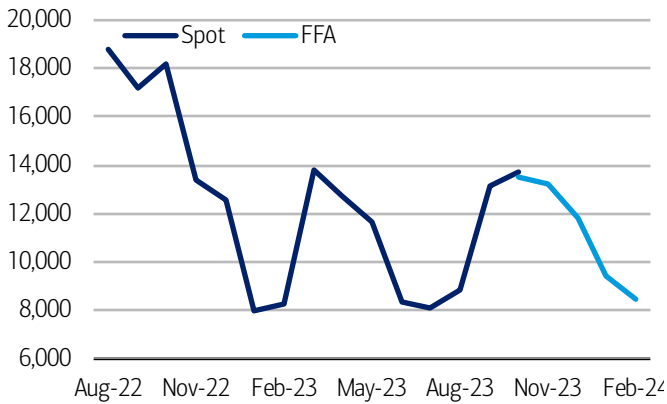
*Size and commission adjusted to be comparable to PacBasin average handy rates

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Handysize & Supramax FFA outlook

Exhibit 89: Supramax - Freight Forward Agreement, 2023-24

Supra forward curves pointing down from here

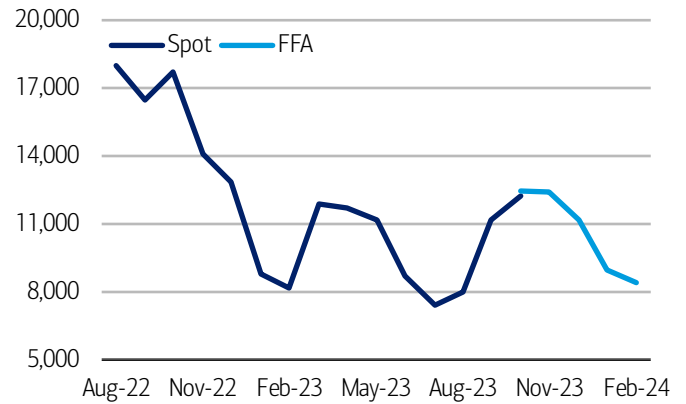


Source: Bloomberg

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Exhibit 90: Handysize - Freight Forward Agreement, 2023-24

Handy forward curves point to down starting in December



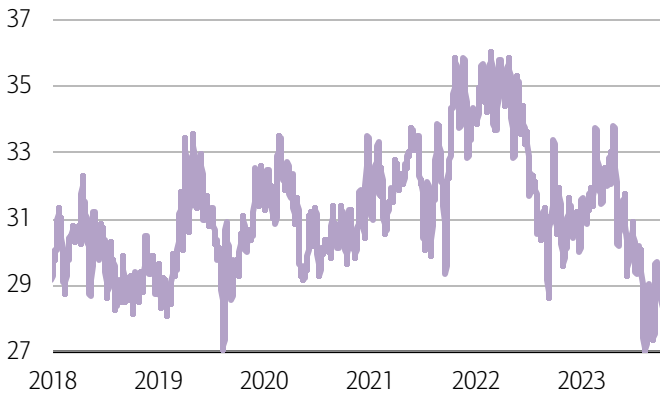
Source: Bloomberg

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Port congestions

Exhibit 91: Daily dry bulk fleet at port (anchor or berth) (%) 2018-23

~30% of dry bulk fleet at port

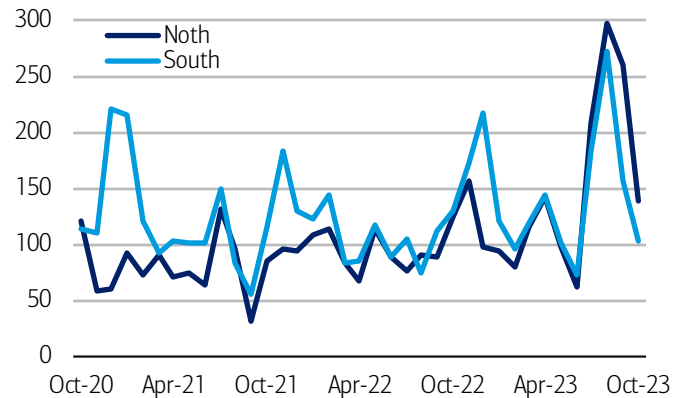


Source: Clarksons

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Exhibit 92: Panama Canal bulker waiting time (hours), 2020-23

Bulk vessel congestion easing with average 4-6 day wait time

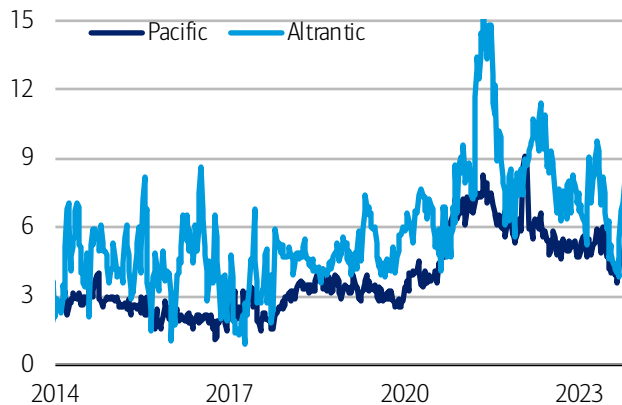


Source: Panama Canal Authority Note: Sept. data up to 16th daily average.

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Exhibit 93: Port congestion by region (# of days), 2014-23

Pacific ports congestion now below 6 days

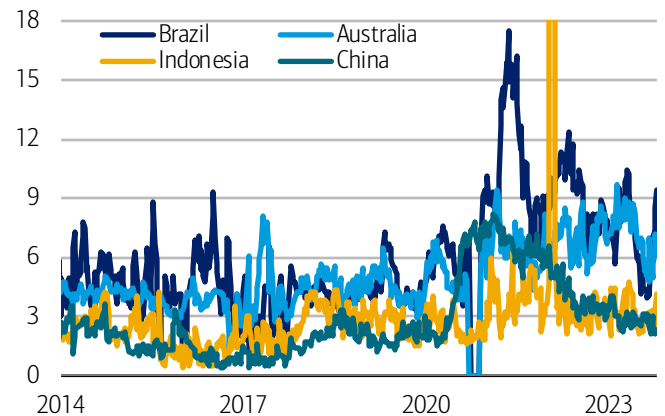


Source: Refinitiv

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Exhibit 94: Port congestion by country (# of days), 2014-23

Chinese port congestion continue to decline reaching near Pre-COVID level



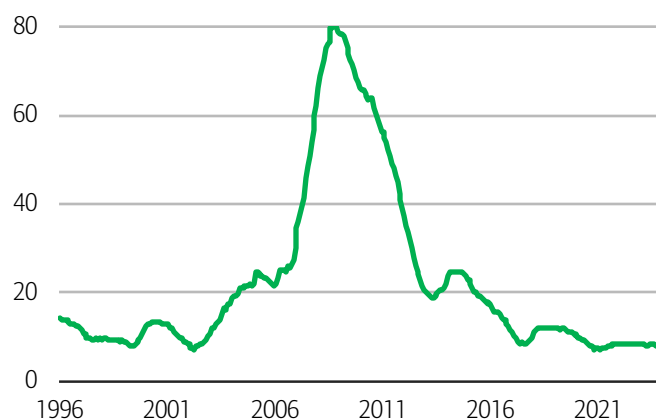
Source: Refinitiv

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Vessel supply

Exhibit 95: Dry bulk orderbook to fleet (%), 1996-2023

Orderbook to fleet down to around 8.0%

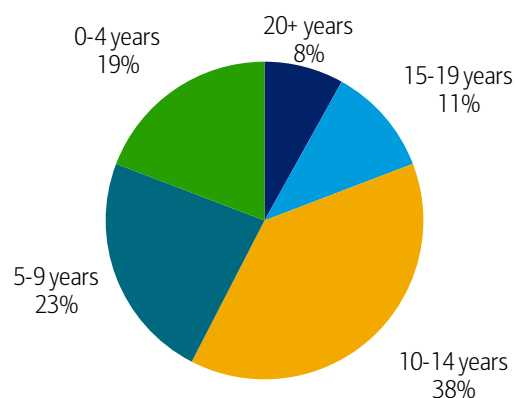


Source: Clarksons

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Exhibit 96: Dry bulk vessel age distribution, 2023

19% of fleet is older than 15 years



Source: Clarksons

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Bulk carrier price & scrap rate

Exhibit 97: Bulk carrier secondhand vessel price index, 2010-23

Secondhand vessel prices started to slowly recover in October

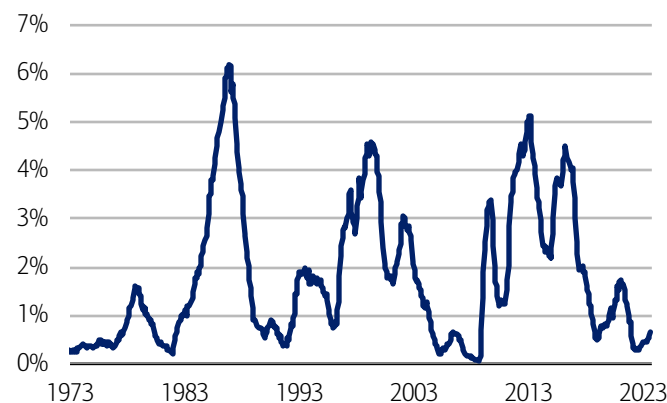


Source: Clarksons

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Exhibit 98: Bulkcarrier scrap rate (%) – 1973-2023

Scraping rate down to around 0.65% of fleet



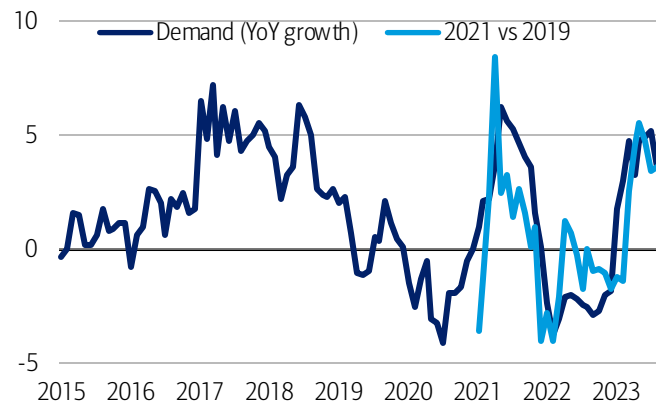
Source: Clarksons

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Dry bulk demand reads

Exhibit 99: Dry bulk demand growth (% YoY), 2015-23

Dry bulk demand above 2019 levels since May 2023

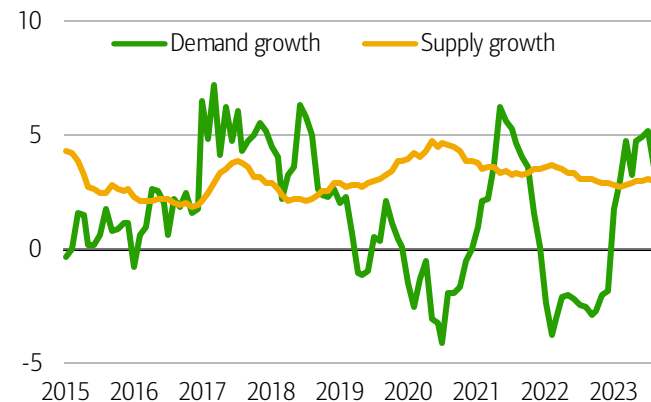


Source: Clarksons

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Exhibit 100: Bulk monthly demand & supply growth (% YoY), 2015-23

Bulk demand growth rebound vs supply growth of +3.0% YoY



Source: Clarksons

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Exhibit 101: Iron ore demand growth (% YoY), 2015-23

Iron ore demand trending at above 2019 levels since May 2023

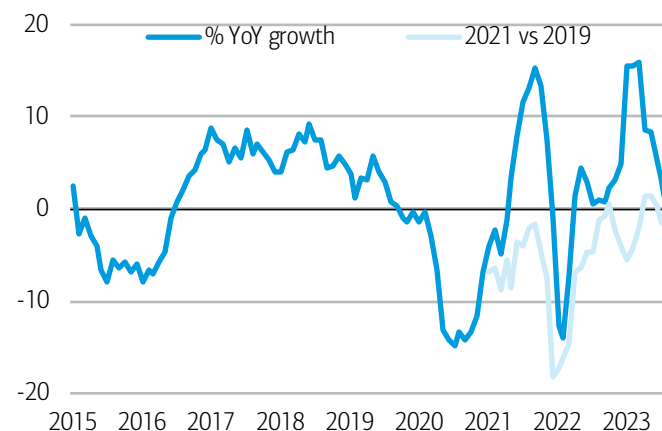


Source: Clarksons

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Exhibit 102: Coal demand growth (% YoY), 2015-23

Coal demand growth trending in-line with 2019 levels

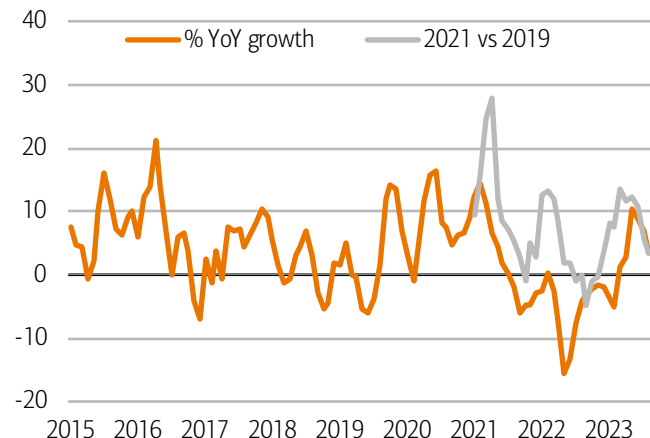


Source: Clarksons

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Exhibit 103: Grain demand growth (% YoY), 2015-23

Grain demand at above 2019 levels since May 2023

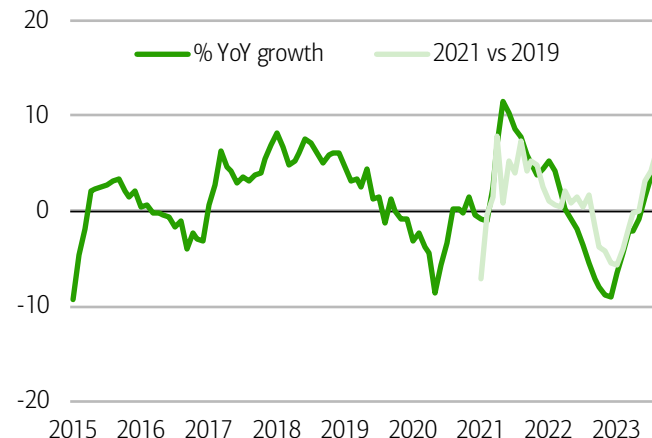


Source: Clarksons

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Exhibit 104: Minor bulk demand growth (% YoY), 2015-23

Minor bulk demand growth trending slightly above 2019 levels

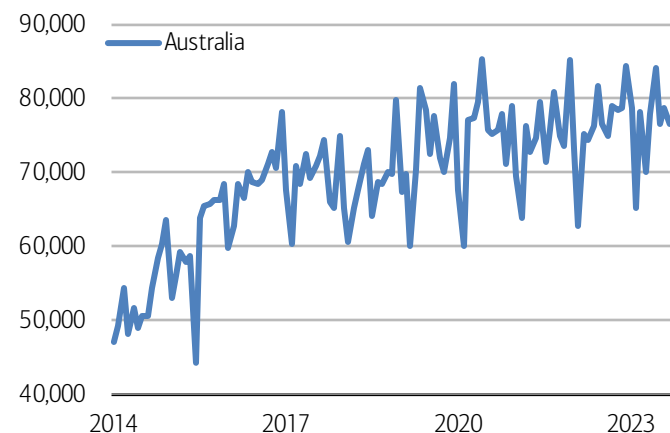


Source: Clarksons

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Exhibit 105: Australia iron ore monthly shipments (bn tn), 2014-23

Australian iron ore exports recovering off cyclone disruptions

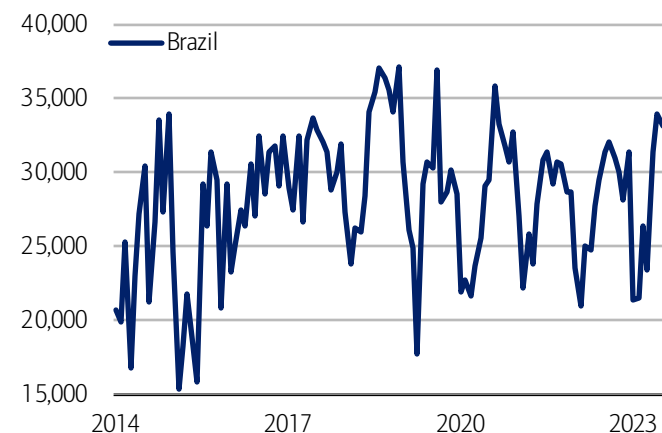


Source: Marcura

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Exhibit 106: Brazil iron ore monthly shipments (bn tn), 2014-23

Brazil iron ore exports relatively stable

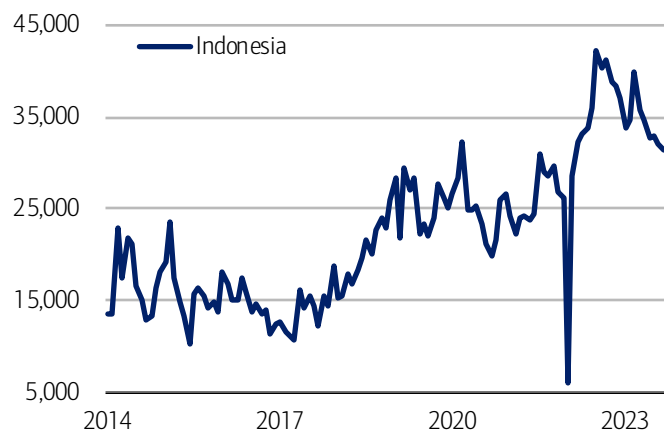


Source: Marcura

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Exhibit 107: Indonesian coal monthly shipments (bn tn), 2014-23

Indonesian exports under some pressure

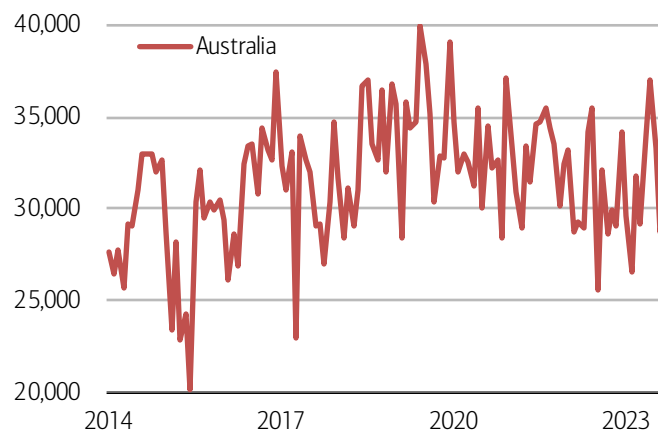


Source: Marcura

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Exhibit 108: Australian coal monthly shipments (bn tn), 2014-23

Aussie coal shipments came made a small recovery in September



Source: Marcura

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Dry bulk demand & supply**Exhibit 113: 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%	3.3%	1.8%	1.9%
Fleet Growth	2.3%	3.1%	2.7%	3.0%	4.1%	3.9%	2.9%	2.5%	1.7%	1.4%
Demand / Supply Balance	0.0%	0.8%	0.7%	-2.2%	-4.1%	-0.4%	-4.7%	0.8%	0.1%	0.5%
Dry Bulk Fleet, Dwt mn	2016	2017	2018	2019	2020	2021	2022	2023E	2024E	2025E
Fleet, beginning	780	798	823	845	879	916	949	976	1,001	1,018
New delivery	47	38	28	41	49	38	32	34	30	26
Demolition	(29)	(15)	(4)	(8)	(15)	(5)	(4)	(9)	(13)	(11)
Others	(0)	1	(1)	0	3	-	-	-	-	-
Fleet, Ending, Dwt mn	798	823	845	879	916	949	976	1,001	1,018	1,032
Growth	2.3%	3.1%	2.7%	4.0%	4.2%	3.6%	2.9%	2.5%	1.7%	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%	2.5%	1.7%	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%	1.0%	1.3%	1.1%

Source: BofA Global Research, Clarksons

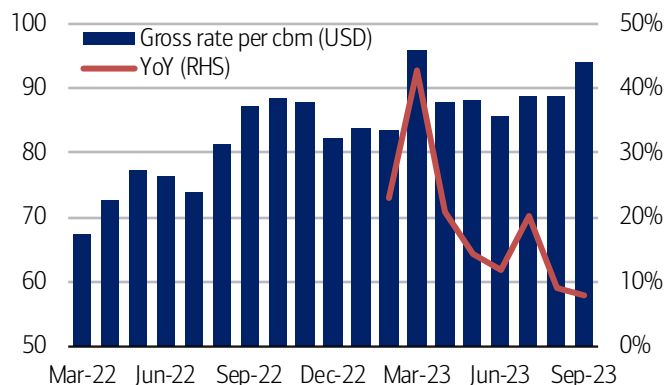
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Car carrier

Car carrier shipping freight rates

Exhibit 110: Hoegh Autoliners - Gross rate per cbm (US\$)

Continue to stay at near US\$90 /cbm level for the past year

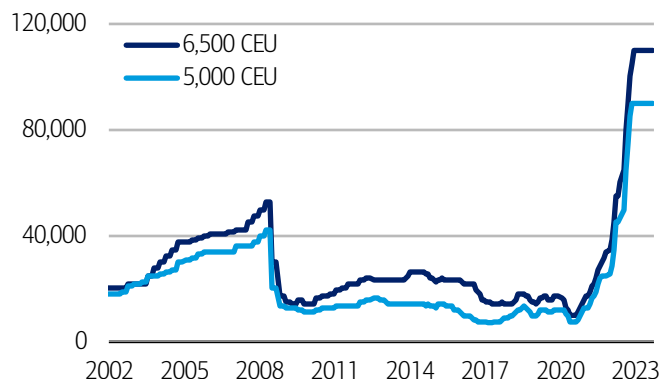


Source: hoeghautoliners

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Exhibit 111: Car carrier 1 year time charter rate (US\$/day), 2002-2023

Rates rapidly increased starting in spring, 2021



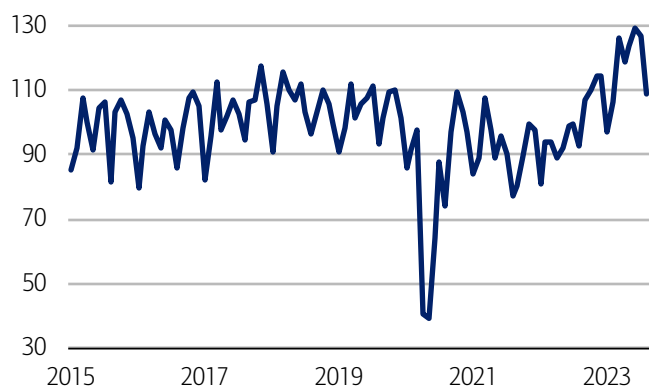
Source: Clarksons

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Car carrier demand

Exhibit 112: Global seaborne car trade indicator, 2015-2023

Trending higher since September 2022

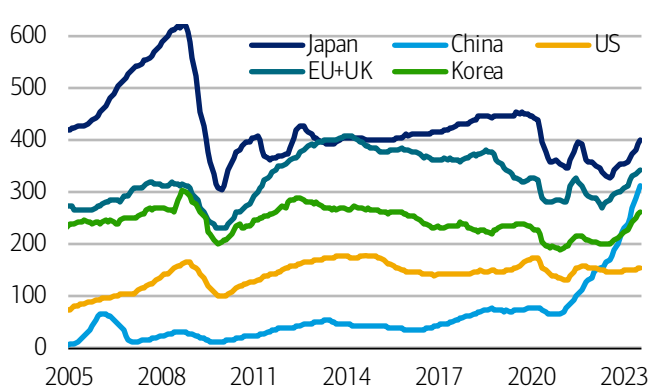


Source: Clarksons

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Exhibit 113: Global seaborne car exports TTM, ('000's) 2005-23

Chinese car export have drastically increased post-COVID



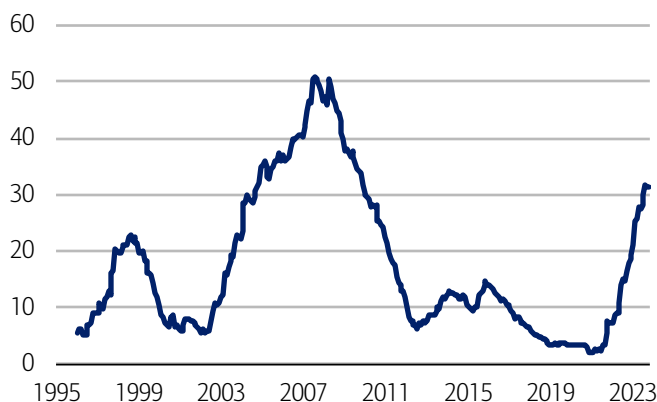
Source: Clarksons

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Car carrier supply & scrap

Exhibit 114: Pure car carrier orderbook % of fleet (%), 1995-2023

Orderbook now above 30% of fleet

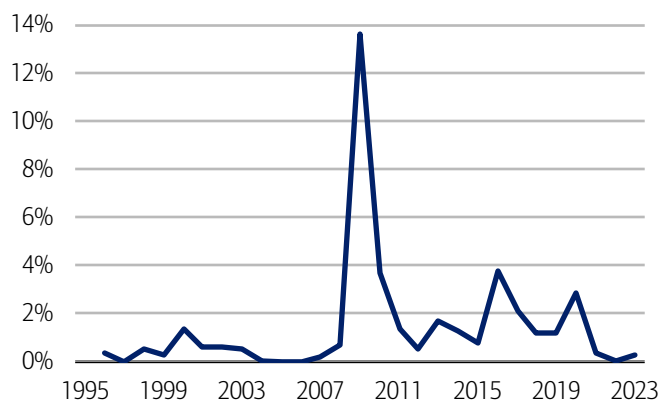


Source: Clarksons

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Exhibit 115: Car carrier scrap rate (%), 1995-2023

Scrap rate has been below 0.5% for the past couple of years



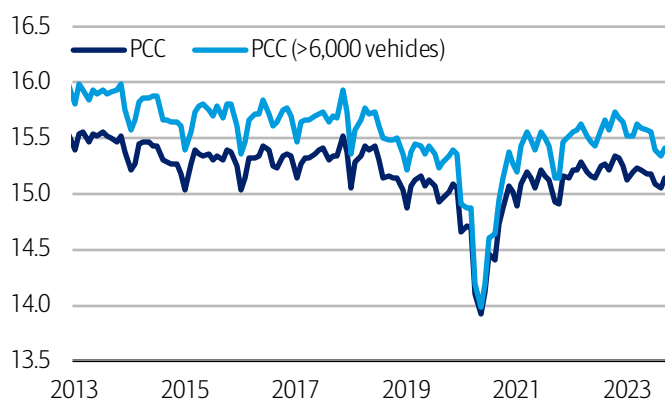
Source: Clarksons

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Car carrier speed & secondhand price

Exhibit 116: Pure car carrier average speed (knots), 2013-23

Average speed has recovered back to Pre-COVID level and been stable

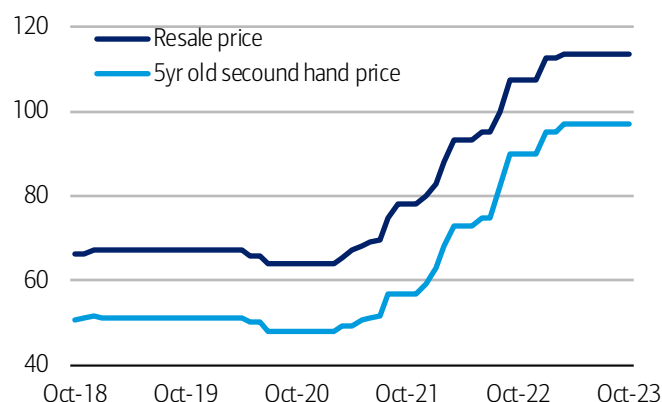


Source: Clarksons

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Exhibit 117: Pure car and truck carrier prices (US\$ mn), 2018-23

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 122: Car carrier demand & supply outlook

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

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Demand growth (% p.a.)	2.8%	-0.7%	1.5%	0.8%	4.8%	2.2%	-1.2%	-19.7%	7.3%	10.1%	8.8%	4.0%	3.7%	3.0%	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%	1.8%	8.0%	9.9%	6.1%	0.7%
Demand/(supply) imbalance	-2.2%	-2.4%	-1.1%	-2.3%	5.2%	0.2%	-2.4%	-19.1%	8.9%	9.0%	7.0%	-4.0%	-6.2%	-3.1%	2.5%
Gross deliveries (% p.a.)	3.5%	4.0%	4.0%	3.6%	4.1%	2.4%	0.8%	1.4%	1.5%	0.5%	1.8%	8.5%	10.4%	6.6%	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%	0.0%	0.5%	0.5%	0.5%	0.5%

Source: Clarksons, BofA Global Research

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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.

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