

Shipping - Global

Shipping & supply chain high frequency tracker #43

Industry Overview

Tracking the high frequency shipping data

This report contains our favorite charts to track the shipping cycle. Container shipping freight rates moved slightly higher last week with Europe ships sailing full and some rate hikes succeeding – but it's unclear if we have found a bottom with rates still above variable cost breakeven and discipline remaining elusive (idle rate at 2.6%). VLCC tanker rates have surged in March with clear strength in US exports and no disruption to Russian crude export volumes, and rates are expected to hold at profitable levels through 2023. Dry bulk has bounced off the bottom on China returning from CNY and improved exports from Brazil and Indonesia – but watch Brazil rail disruptions and China macro.

Container: Rates bottoming or a temporary pause?

Container spot rates stopped declining last week supported by high utilization on Asia-Europe trades and some success on rate hikes on smaller trades. Demand appears to have seasonally improved off the bottom and Europe demand is robust, but we're not sure if we are at the start of a new rate upcycle with discipline remaining elusive (idle rate at 2.6% excluding ships at repair) and possible consumer headwinds from recent bank instability. The key debate remains when liners show more discipline with spot rates now slightly below cash breakeven but above variable cost breakeven, and also when world trade reads start to reverse (US imports -36% YoY in March so far). And while local ILWU issues are causing some trucking congestion, but North American ports are nearly clear of vessel congestion leaving limited scope for supply chain disruption.

Tanker: US exports driving surge in VLCC rates

VLCC rates have surged through March to US\$80-90k/day with high frequency data showing crude tanker demand hitting recent highs with a clear strengthening in US crude exports. Aggregate Russian crude exports appear to be largely undisrupted by insurance bans with Europe importing crude from further away, while China's reopening is driving demand off the bottom. Time charter rates and forward freight agreements appear to suggest that rates should hold at profitable levels above US\$40k/day through the rest of the year, although watch for typical seasonal volatility.

Bulk: Brazil & Indonesia supporting dry bulk rebound

Longer distance Brazil iron ore exports have supported dry bulk markets in recent weeks, although recent disruptions to Brazil rail infrastructure have caused capesize rates to take a pause. Smaller ships have seen a boost from ramping Indonesian coal exports in the high frequency data and should benefit from ramping grain in the coming months. Time charter rates and freight forward agreements suggest healthy supra and handysize rates in the low to mid teens for the rest of the year as seasonal headwinds ease.

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Equity
Global
Shipping

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Abbreviations

VLCC: Very Large Crude Carrier

ILWU: International Longshore and
Warehouse Union

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Refer to important disclosures on page 27 to 29.

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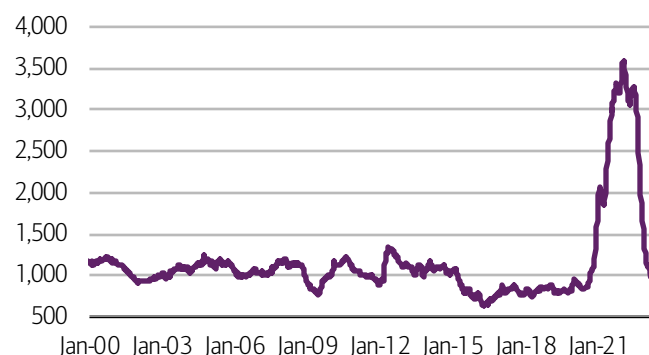
Timestamp: 23 March 2023 11:11PM EDT

Container shipping

Blended freight rates

Exhibit 1: China Containerized Freight Index, 2000-23

CCFI down to 993 vs P&L breakeven around 1,000



Source: Shanghai Shipping Exchange

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Exhibit 2: CCFI quarterly average, 2021-23

CCFI down -31% QoQ so far in 1Q23

CCFI	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23
CCFI	3,266	3,444	3,157	2,950	1,615	1,110
CCFI Europe	5,275	5,526	5,060	4,738	2,497	1,448
CCFI USWC	2,318	2,596	2,502	2,331	1,079	807
CCFI USEC	2,527	2,682	2,796	2,844	1,746	1,181

% YoY

CCFI	161%	75%	46%	-1%	-51%	-68%
CCFI Europe	259%	77%	45%	-7%	-53%	-74%
CCFI USWC	102%	95%	69%	13%	-53%	-69%
CCFI USEC	98%	79%	59%	22%	-31%	-56%

% QoQ

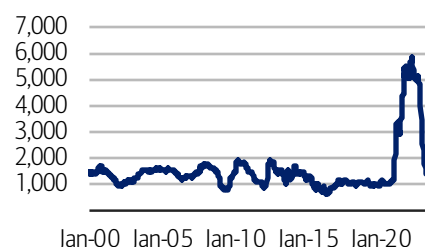
CCFI	9%	5%	-8%	-7%	-45%	-31%
CCFI Europe	3%	5%	-8%	-6%	-47%	-42%
CCFI USWC	12%	12%	-4%	-7%	-54%	-25%
CCFI USEC	8%	6%	4%	2%	-39%	-32%

Source: Shanghai Shipping Exchange

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Exhibit 3: CCFI Europe, 2000-23

CCFI Europe at 1,235

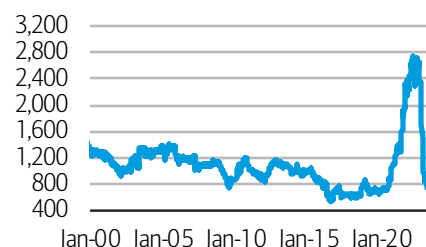


Source: Shanghai Shipping Exchange

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Exhibit 4: CCFI, US west coast, 2000-23

CCFI US west coast at 738

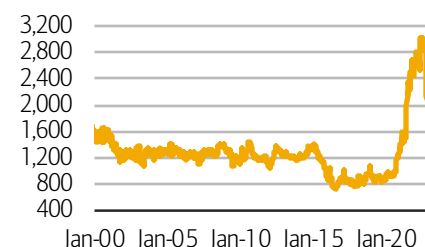


Source: Shanghai Shipping Exchange

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Exhibit 5: CCFI US east coast, 2000-23

CCFI east coast tracking at 1,065

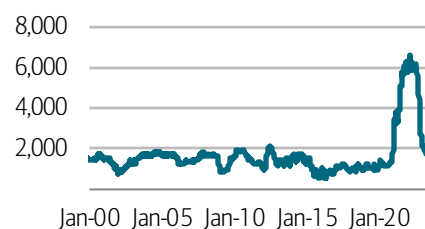


Source: Shanghai Shipping Exchange

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Exhibit 6: CCFI Mediterranean, 2000-23

CCFI Med tracking at 1,767

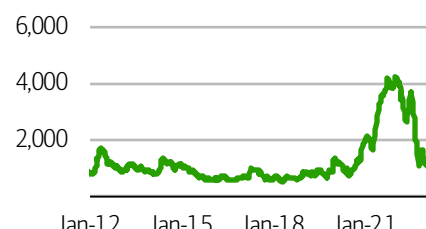


Source: Shanghai Shipping Exchange

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Exhibit 7: CCFI Middle East, 2000-23

CCFI Middle East at 1,012

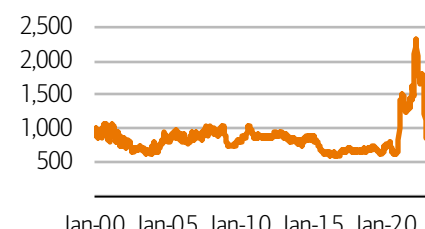


Source: Shanghai Shipping Exchange

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Exhibit 8: CCFI Singapore, 2000-23

CCFI Singapore tracking at 646



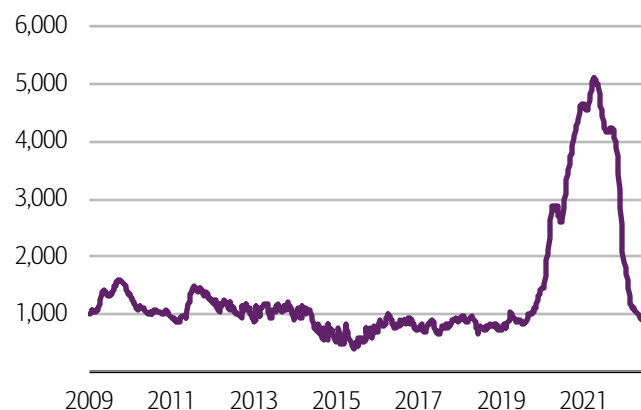
Source: Shanghai Shipping Exchange

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Spot freight rates

Exhibit 9: Shanghai Containerized Freight Index, 2009-23

SCFI down to 907 vs P&L breakeven of around 1,000



Source: Shanghai Shipping Exchange

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Exhibit 10: SCFI quarterly average, 2021-23

SCFI down -29% QoQ so far in 1Q23

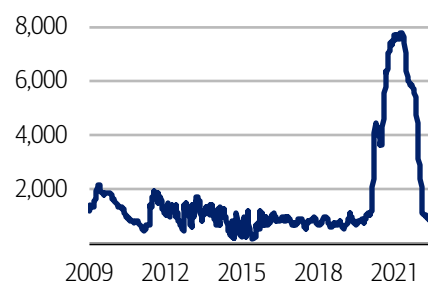
SCFI	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23
SCFI	4,698	4,851	4,211	3,279	1,375	979
SCFI Europe	7,636	7,435	5,959	4,656	1,490	937
SCFI USWC	6,835	8,032	7,773	5,278	1,627	1,288
SCFI USEC	10,758	11,008	10,409	8,557	4,126	2,520
% YoY						
SCFI	142%	74%	29%	-24%	-71%	-80%
SCFI Europe	279%	81%	15%	-36%	-80%	-87%
SCFI USWC	75%	100%	68%	-9%	-76%	-84%
SCFI USEC	129%	130%	47%	-20%	-62%	-77%
% QoQ						
SCFI	9%	3%	-13%	-22%	-58%	-29%
SCFI Europe	5%	-3%	-20%	-22%	-68%	-37%
SCFI USWC	18%	18%	-3%	-32%	-69%	-21%
SCFI USEC	1%	2%	-5%	-18%	-52%	-39%

Source: Shanghai Shipping Exchange

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Exhibit 11: SCFI: Asia-Europe, 2009-23 (USD/TEU)

SCFI Europe at US\$878 /TEU

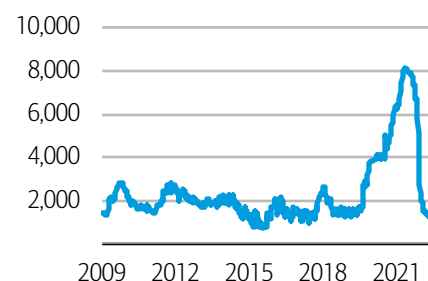


Source: Shanghai Shipping Exchange

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Exhibit 12: SCFI: Asia to US west coast, 2009-22 (USD/FEU)

SCFI USWC at US\$1,161 /FEU

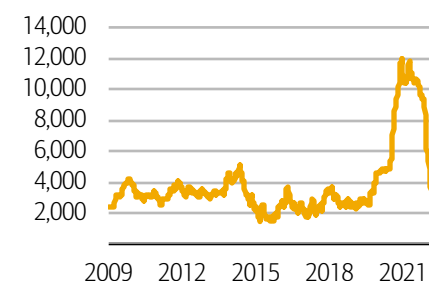


Source: Shanghai Shipping Exchange

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Exhibit 13: SCFI: Asia to US east coast, 2009-22 (USD/FEU)

SCFI USEC at US\$2,088 /FEU

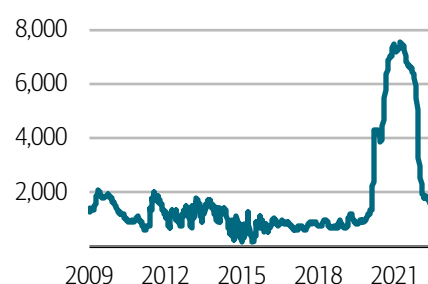


Source: Shanghai Shipping Exchange

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Exhibit 14: Asia-Mediterranean, 2009-22 (USD/TEU)

SCFI Med at US\$1,651 /TEU

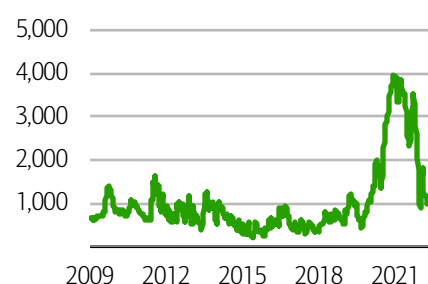


Source: Shanghai Shipping Exchange

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Exhibit 15: SCFI: Asia-Middle East, 2009-22 (USD/TEU)

SCFI Middle East US\$879 /TEU

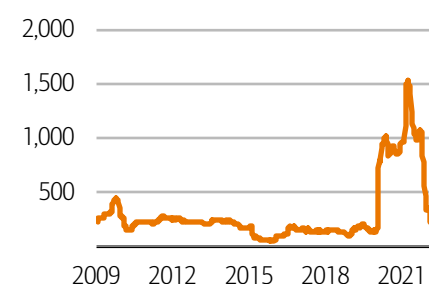


Source: Shanghai Shipping Exchange

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Exhibit 16 SCFI: Asia-Singapore, 2009-22 (USD/TEU)

SCFI Singapore at US\$190 /TEU



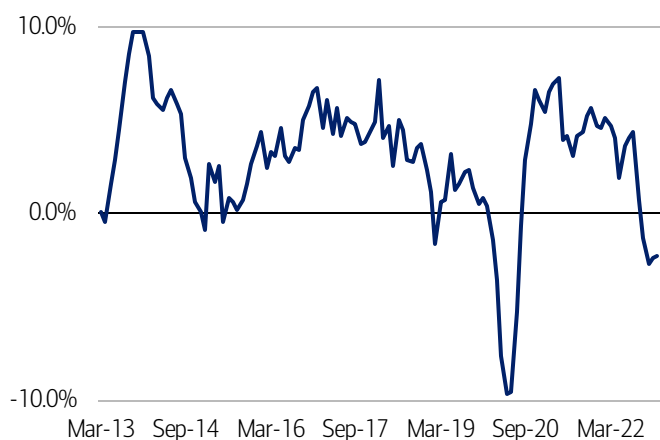
Source: Shanghai Shipping Exchange

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World trade trends

Exhibit 17: Global container volume growth (3MA YoY %) #

World trade volume below 2019 levels in January 2023

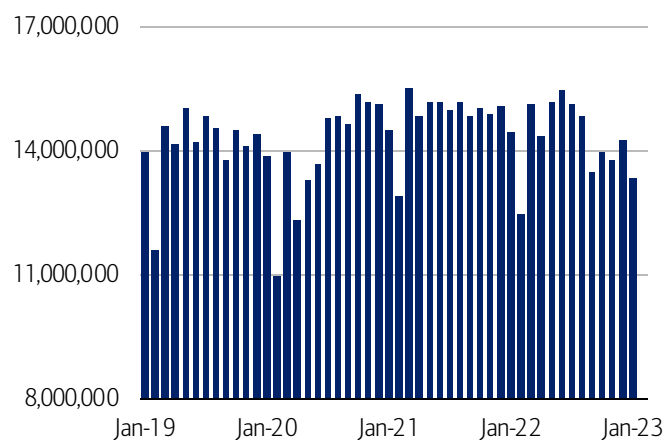


Source: CTS, BofA Global Research estimates, # 2021 data compared to 2019

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

World trade volumes up a little MoM in January 2023

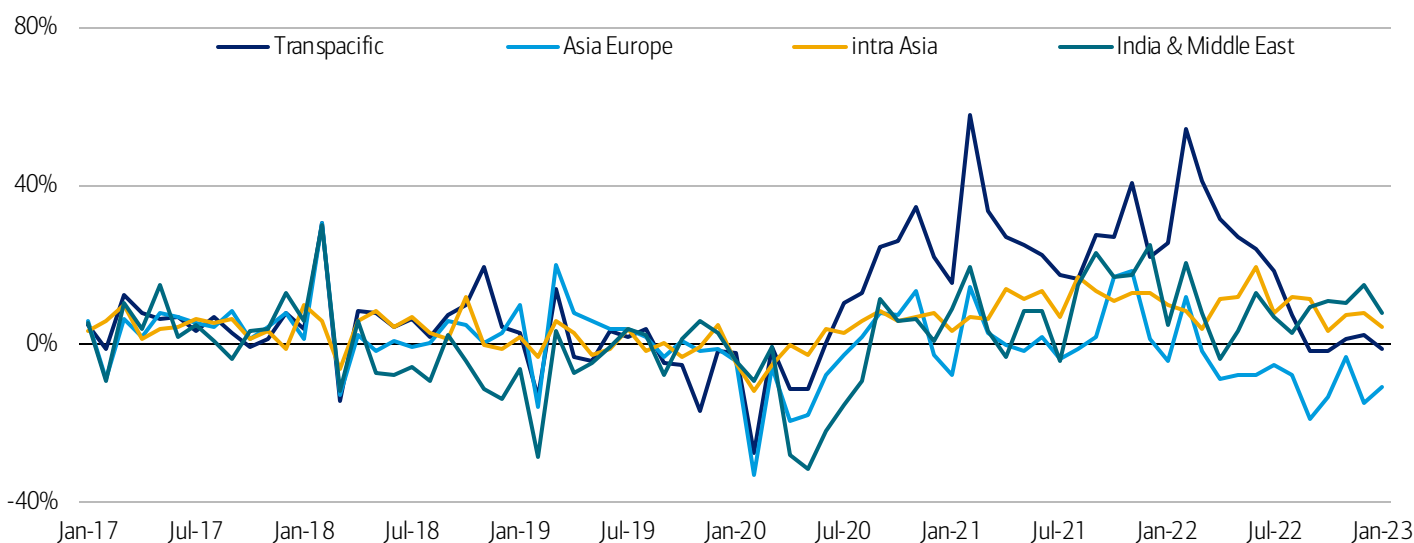


Source: CTS, BofA Global Research estimates

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

Transpacific volumes slightly below 2019 levels now



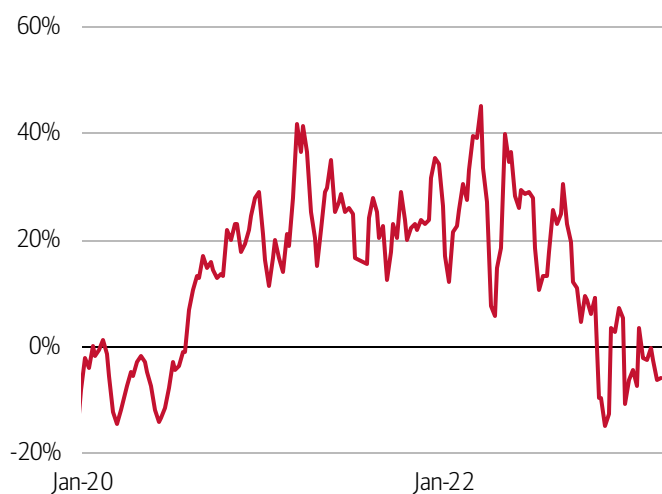
Source: CTS # 2021-23 relative to 2019 levels

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US high frequency container volumes

Exhibit 20: US weekly container imports vs 2019 levels

US weekly imports back to below 2019 levels

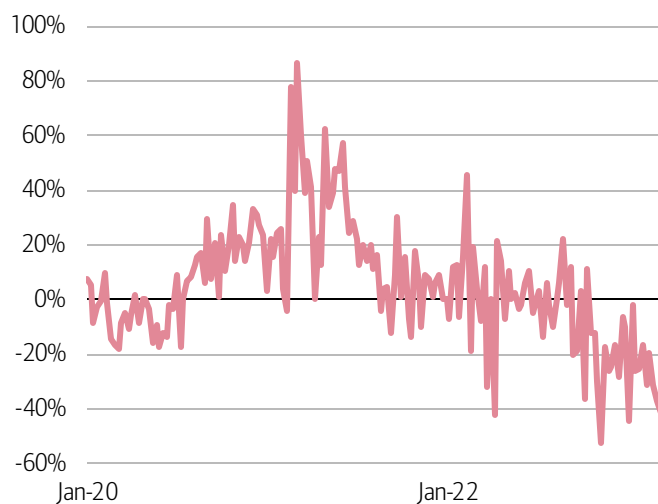


Source: PIERs

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Exhibit 21: US weekly container imports (% YoY growth), 2020-23

US weekly imports sharply YoY lower



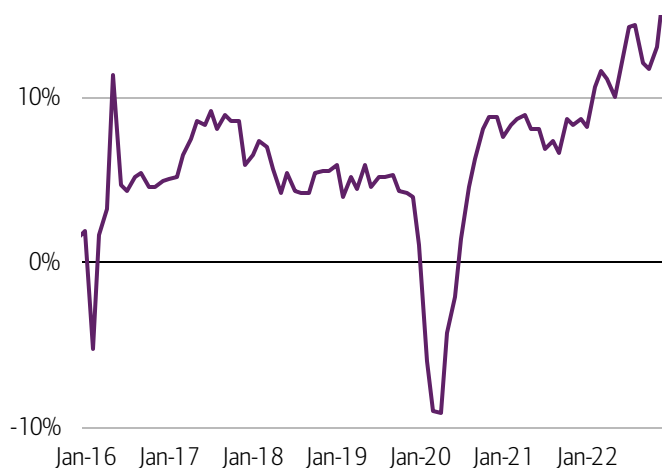
Source: PIERs

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Chinese port container volumes

Exhibit 22: Chinese sea port volume growth (3MA, % YoY)

Chinese Dec container volumes +13% vs 2019 levels and +7% YoY

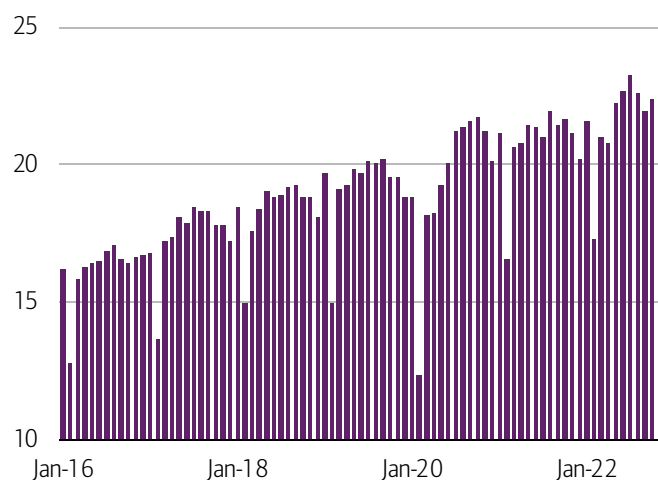


Source: Bloomberg, # 2021 data relative to 2019

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Exhibit 23: Chinese sea port volumes (mn TEU), 2016-22

Chinese port volumes up +1.5% MoM in December 2022

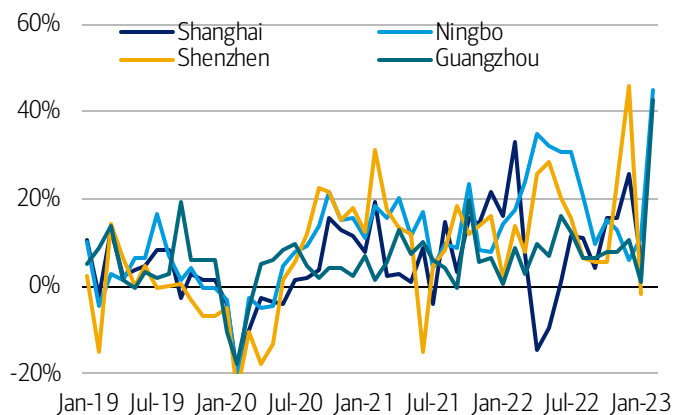


Source: Bloomberg

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Exhibit 24: Chinese monthly port data (% YoY), 2019-23

Strong Ningbo February monthly port numbers

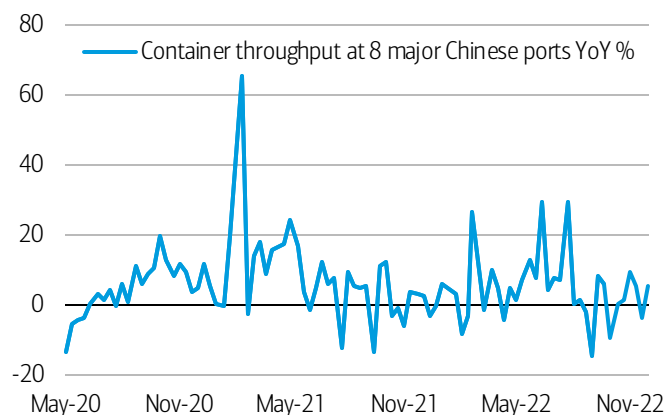


Source: Company reports

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Exhibit 25: China import/export port volumes (% YoY), 2020-22

Chinese port volumes up YoY in December 2022

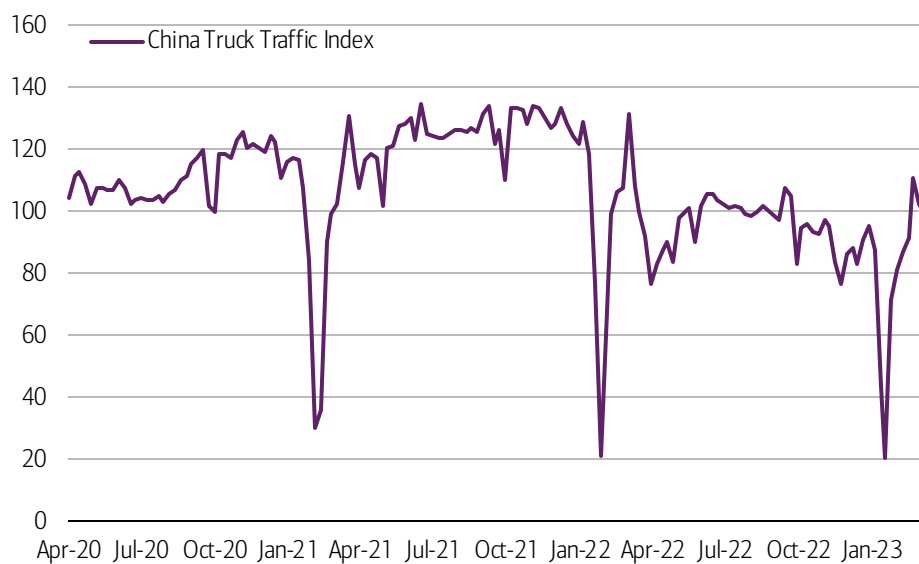


Source: China Ports Association

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Chinese trucking traffic**Exhibit 26: China truck traffic index, 2020-23**

China trucking demand bounce in March



Source: G7

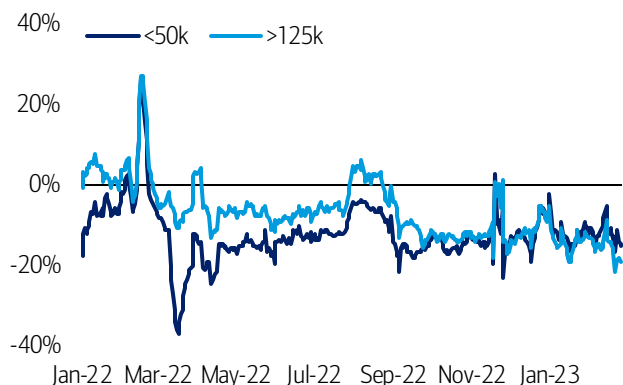
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US consumer reads

For more on BAC aggregated credit and debit card spending data (BAC US card data), and a detailed explanation of the methodology, disclaimers and limitations in connection with such data see the report: [BofA on USA: Resilient but not re-accelerating on 09 March 2023](#).

Exhibit 27: Furniture spending per HH by income group (y/y % change of the 7-day ma of spending levels) per BAC US card data

Furniture spending growth has been largely negative on a y/y basis for both income groups since late Aug

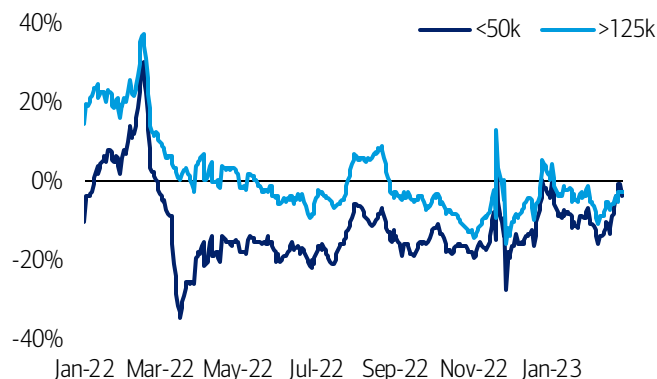


Source: BAC internal data

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Exhibit 28: Clothing spending per HH by income groups (y/y % change of the 7-day ma of spending levels) per BAC US card data

Y/y clothing spending growth continues to be negative for both lower and upper income HHS



Source: BAC internal data

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Exhibit 29: Aggregated monthly card spending per HH by major category in 2022 (%m/m, SA) per BAC US card data

Spending decelerated in Feb after the big increase in January

	Feb-23	Jan-23	Dec-22	Nov-22	Oct-22	Sep-22
Gas	1.0%	0.6%	-4.0%	-3.0%	2.4%	0.8%
Furniture	-1.7%	0.9%	-6.0%	2.5%	-1.8%	-2.4%
Home improvement	1.0%	-0.6%	1.5%	-1.4%	2.2%	-2.8%
Clothing	-2.1%	4.6%	-5.7%	2.4%	-0.2%	-1.0%
Grocery	-0.1%	-0.2%	-1.0%	0.2%	-0.1%	0.5%
General Merchandise	-0.1%	5.2%	-2.0%	-0.9%	0.2%	-0.9%
Department Store	1.0%	1.1%	-1.5%	-1.5%	1.0%	-0.3%
Restaurants	0.4%	0.9%	0.3%	-0.5%	1.5%	0.1%
Lodging	0.1%	-2.0%	2.1%	0.9%	0.0%	0.6%
Airlines	1.5%	4.2%	0.3%	-1.1%	1.7%	2.1%
Total online retail (card not present)	0.4%	0.4%	-1.3%	-1.7%	1.2%	0.2%

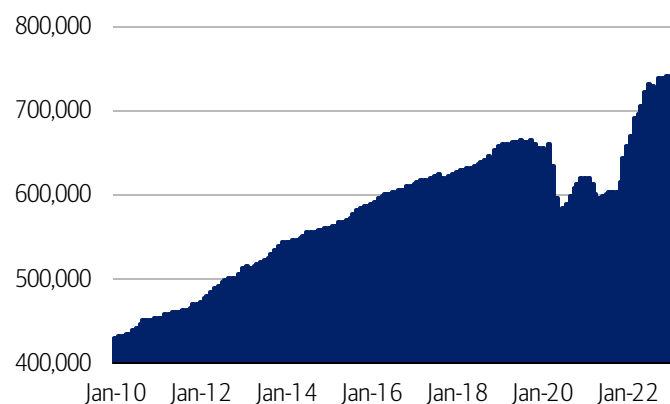
Source: BAC internal data. Card not present is largely online but could include purchases made over the phone

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US retail inventory levels

Exhibit 30: US retail inventories (US\$m), 2010-23

Retail inventories are above pre COVID levels

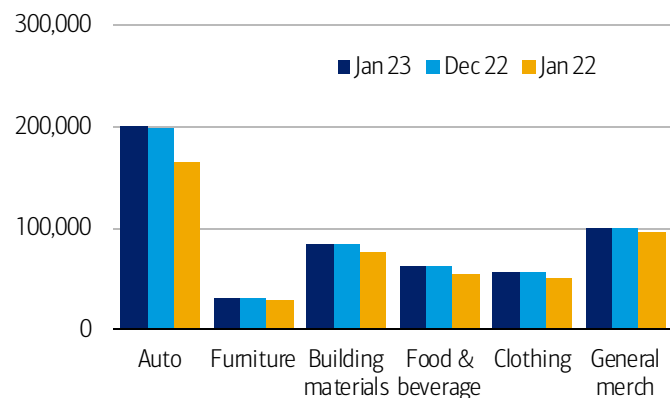


Source: US Census Bureau

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Exhibit 32: US retail inventories (US\$m), 2019-23

Auto inventories are now above same period last year

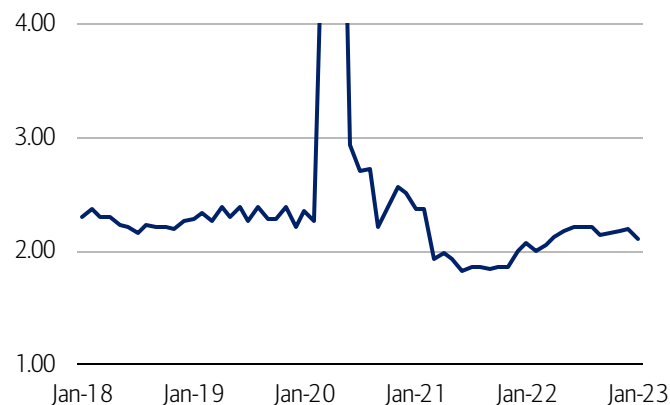


Source: US Census Bureau

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Exhibit 34: Clothing – adjusted inventory to sales, 2018-23

Clothing adjusted inventory to sales at 2.11x



Source: US Census Bureau

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Exhibit 31: US retail inventory to sales ratio, 2010-23

Retail adjusted inventories to sales at 1.23x below averages of 1.4x

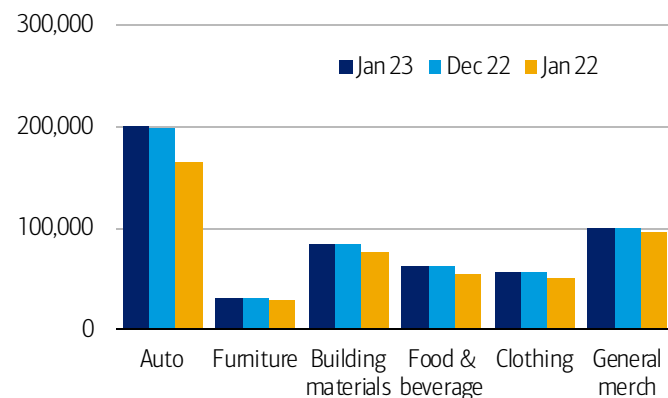


Source: US Census Bureau

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Exhibit 33: US retail inventory to sales (x), 2019-23

Auto and clothing inventory to sales are above same period last year

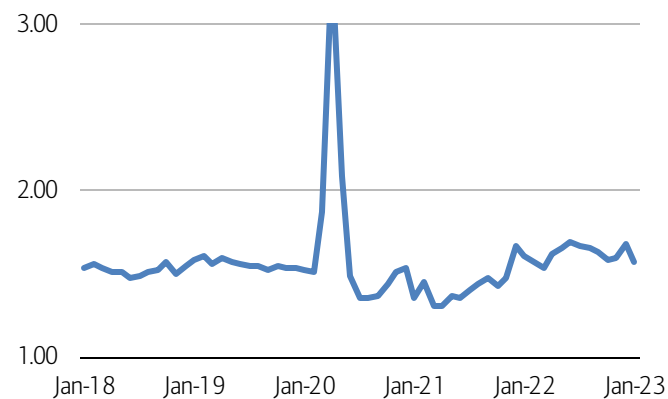


Source: US Census Bureau

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Exhibit 35: Furniture – adjusted inventory to sales, 2018-23

Furniture adjusted inventory to sales at 1.23x



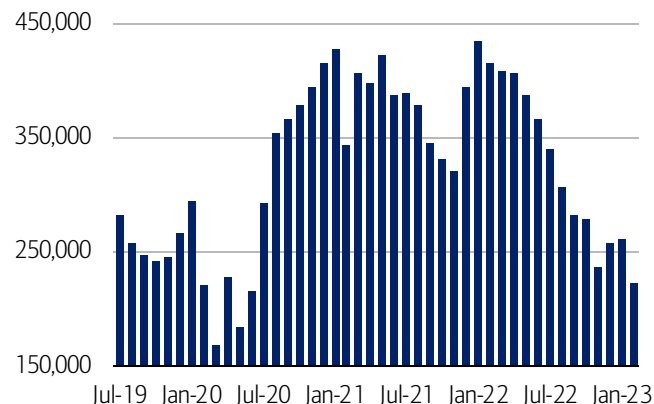
Source: US Census Bureau

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US container imports by category

Exhibit 36: US furniture monthly imports (TEU), 2019-23

US furniture imports around 220k TEU/month in February

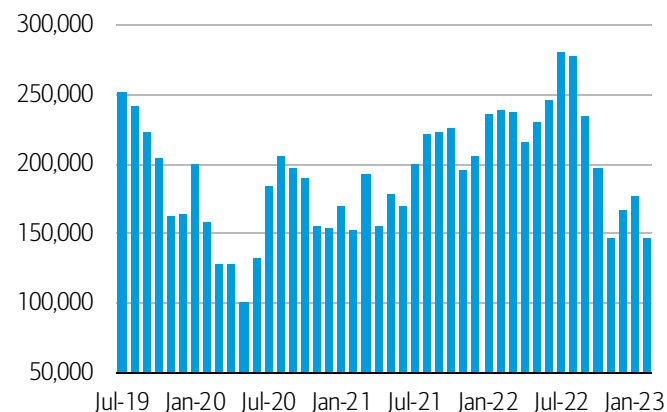


Source: PIERIS

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Exhibit 37: US apparel & footwear imports (TEU), 2019-23

US apparel & footwear imports at 148k TEU in February

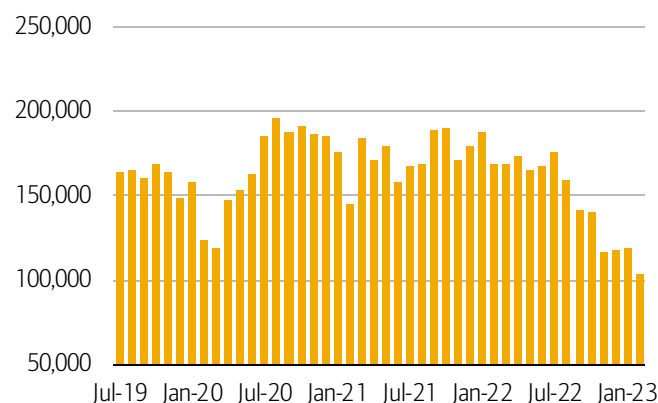


Source: PIERIS

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Exhibit 38: US electronic monthly imports (TEU), 2019-23

US electronics imports trending at 103k TEU/month in February

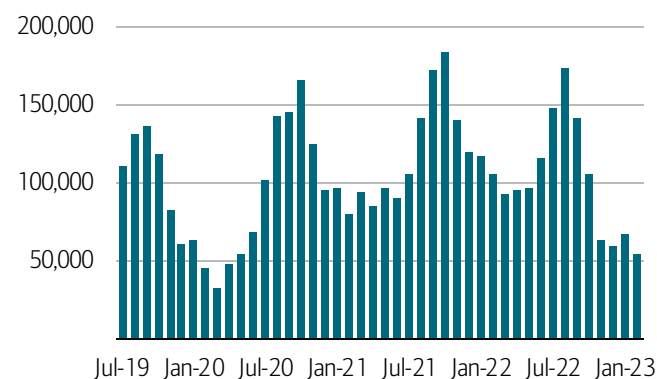


Source: PIERIS

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Exhibit 39: US toy & leisure monthly imports (TEU), 2019-23

US toy & leisure imports up to 54k TEU in February

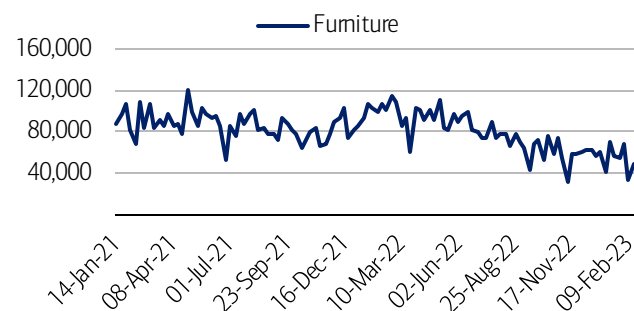


Source: PIERIS

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Exhibit 40: US weekly furniture imports (TEU), 2021-23

Weekly furniture imports stabilizing at lower levels in March 2023

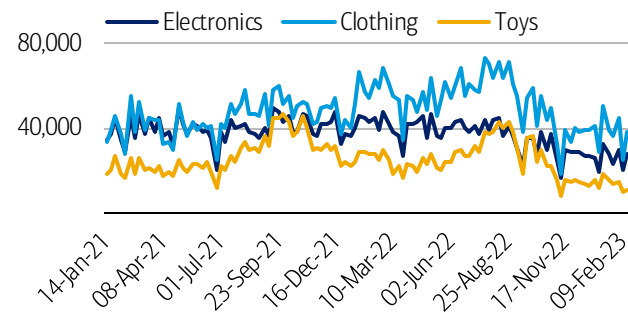


Source: PIERIS

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Exhibit 41: US weekly imports (electronics, clothing, toys), 2021-23

Toy and clothes imports stabilizing in March



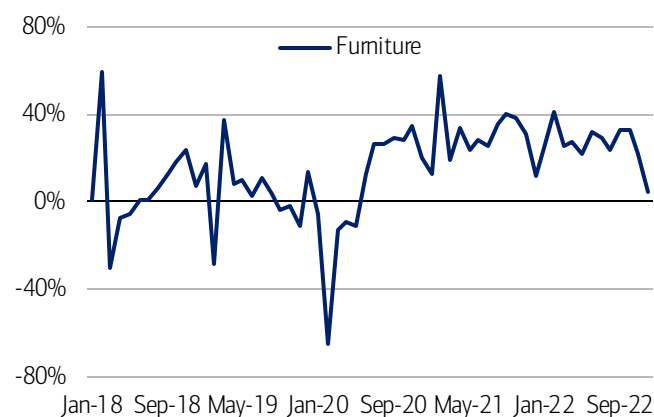
Source: PIERIS

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Chinese exports by category

Exhibit 42: Chinese furniture exports - % YoY growth

Dec 2022 furniture exports 5% above 2019 levels

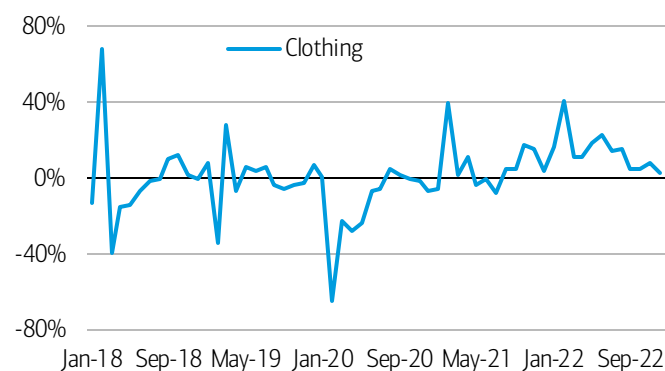


Source: WIND # 2021-22 data relative to 2019 baseline

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Exhibit 44: Chinese clothing exports, % YoY growth

Dec 2022 clothing exports were 3% above 2019



Source: WIND # 2021-22 data relative to 2019 baseline

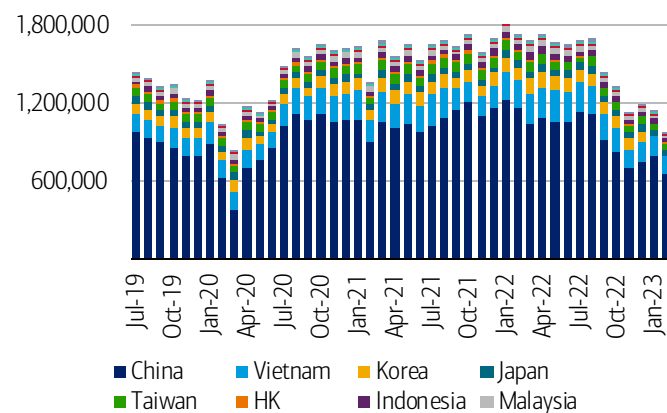
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Container trade flow by geography

Below shows US container imports by Asian export destination, as well as Chinese container exports by destination.

Exhibit 46: US container imports by Asian exporter, 2019-22

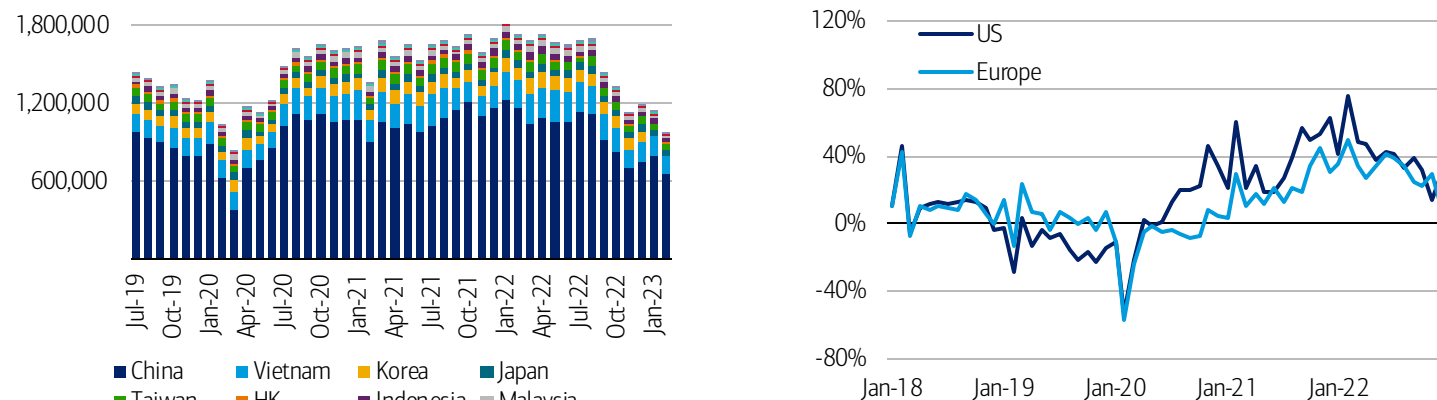
China at 65% of US imports from Asia in January 2023



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Exhibit 47: Chinese exports by destination, 2018-22

China-US exports remain at +31% above 2019 levels in dollar terms



Source: Wind

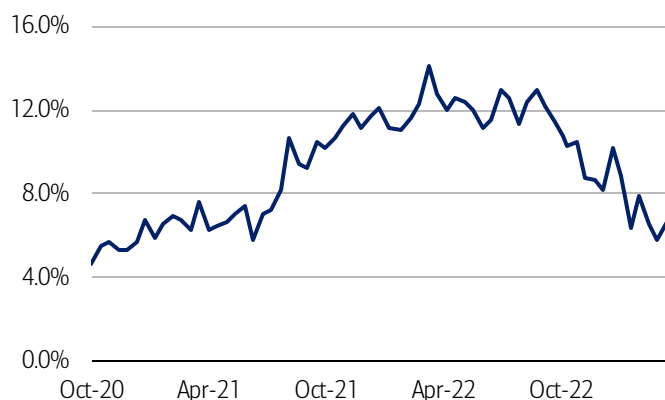
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Port congestion

Below charts show port congestion measures globally:

Exhibit 48: Port congestion - % of fleet, 2020-23

Port congestion back to 6.7% of fleet

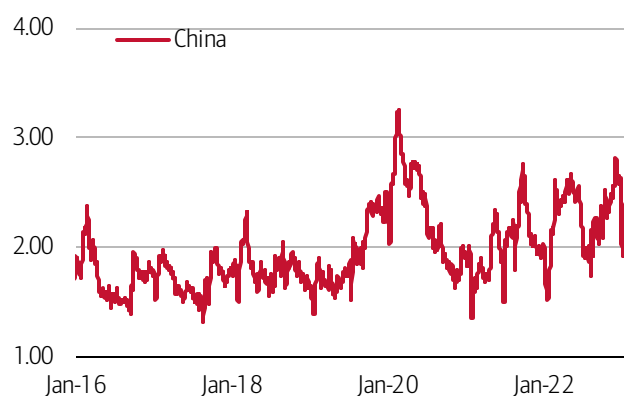


Source: Linerlytica

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Exhibit 49: Vessel capacity in berth & anchor – China (mn TEU)

China congestion easing, but building congestion in eastern China

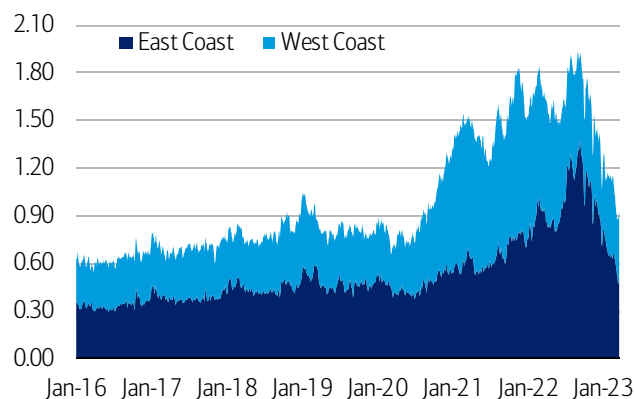


Source: Clarksons

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Exhibit 50: Vessel capacity in port (berth & anchor)– USA (mn TEU)

US congestion easing fading on softer demand

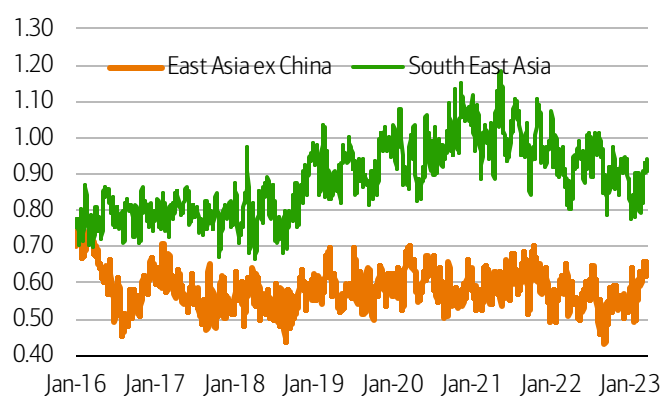


Source: Clarksons

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Exhibit 51: Vessel capacity at berth & anchor –SE Asia (mn TEU)

ASEAN port congestion picking up again

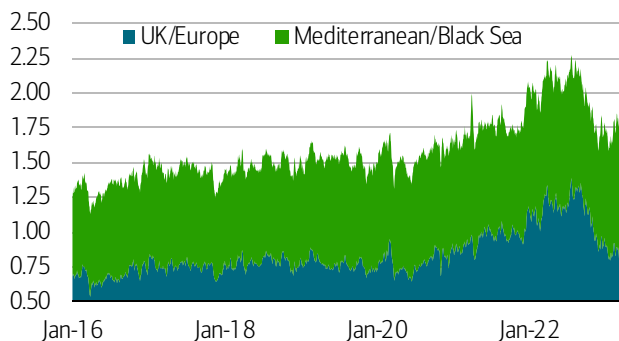


Source: Clarksons

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Exhibit 52: Vessel capacity at berth & anchor - Europe & Med (mn TEU)

Europe congestion is down from peaks

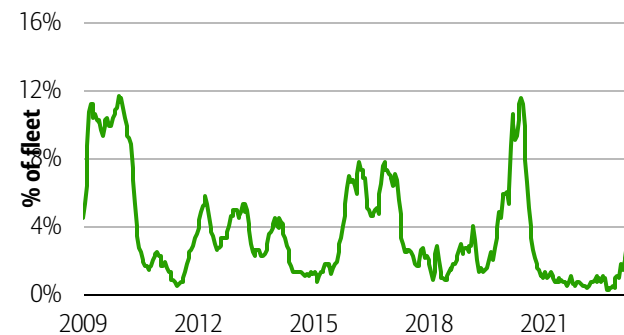


Source: Clarksons

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Exhibit 53: Container vessel idling rate (%),

Container vessel idling rate up to 2.6%



Source: Alphaliner, Linerlytica

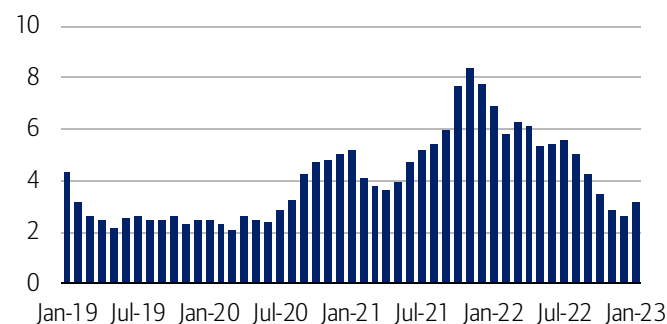
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US inland congestion trackers

Below shows how quickly container boxes move from the terminal yard to inland transport at Port of LA/Long Beach. Overall inland congestion appears to be easing including on the Midwest US rail networks:

Exhibit 54: US West Coast ports – average box dwell time (days)

Boxes are waiting at terminal yards for 3.1 days before pickup

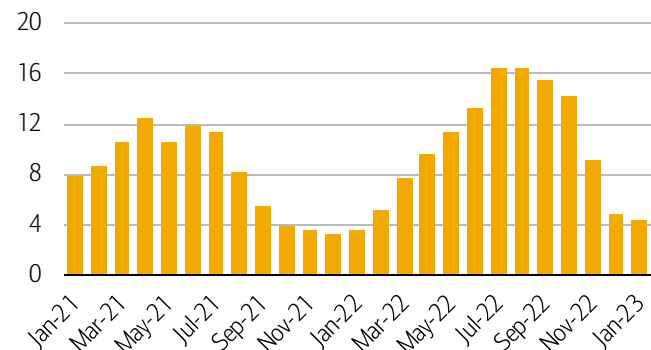


Source: PMSA

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Exhibit 55: US West Coast ports – average rail box dwell time (days)

Boxes are waiting at terminal yards for 4.3 days before rail pickup up



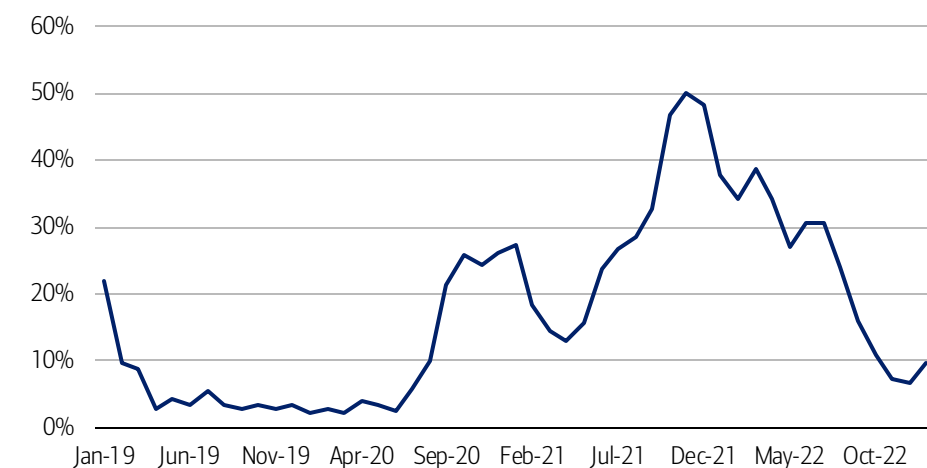
Source: PMSA

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Below shows % of boxes waiting for more than 5 days showing congestion has sharply eased in recent months:

Exhibit 56: US west coast ports - % of boxes waiting more than 5 days

Only 9.8% of boxes are waiting more than 5 days for pickup now



Source: PMSA

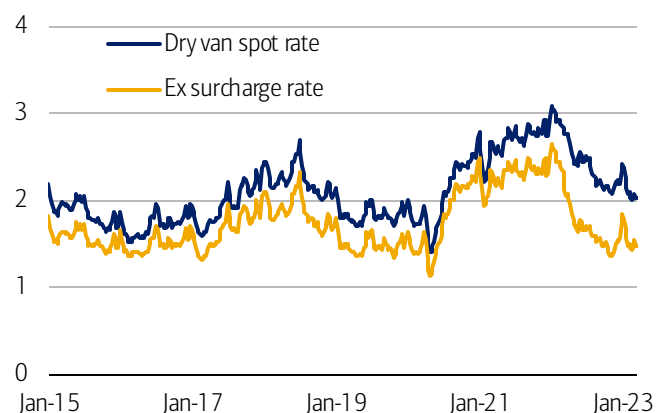
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US trucking spot rates

Below shows US spot trucking rates as well as number of employees employed in the US trucking industry per St Louis Fed data:

Exhibit 57: Spot trucking rates (US\$/mile), 2015-23

Spot trucking rates dipping again into March



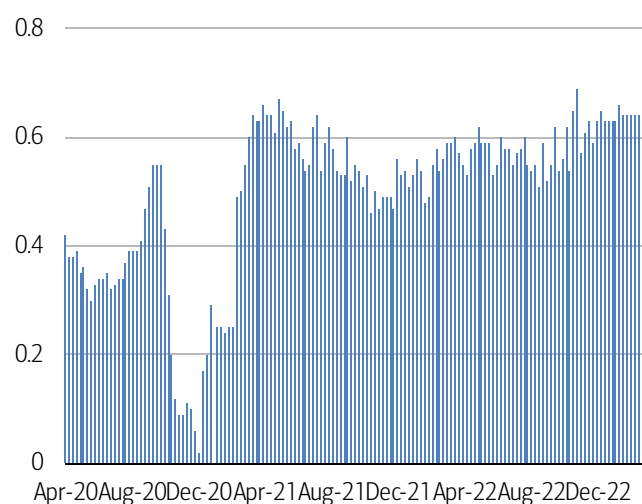
Source: Truckstop.com

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Container box availability

Exhibit 59: Shanghai – box availability (CAx)

Container box availability holding above 0.6 in Shanghai

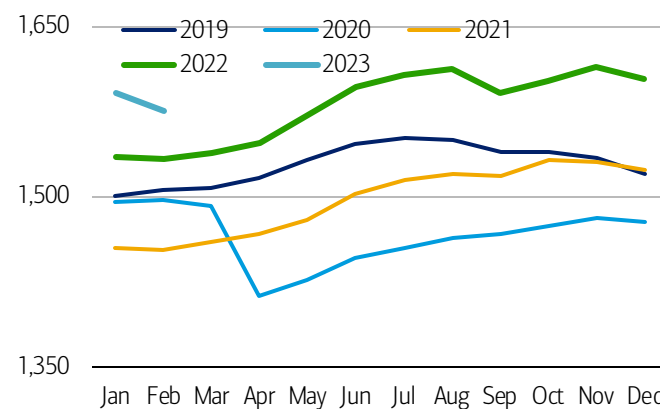


Source: Bloomberg

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Exhibit 58: US truck driver employees (thousands), 2019-22

US employees in truck transport are above pre-COVID levels

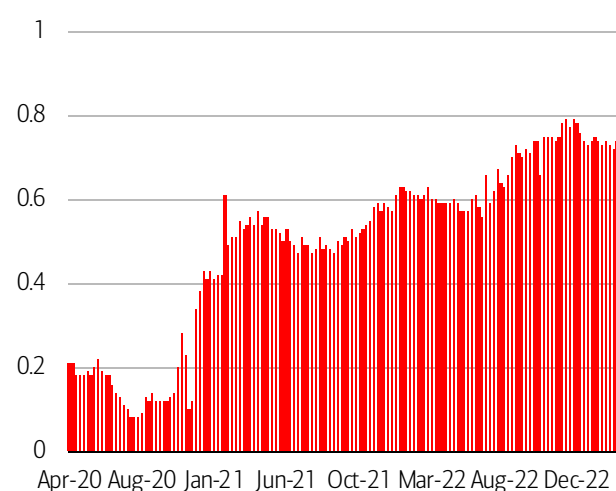


Source: St Louis Fed

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Exhibit 60: Singapore – box availability (CAx)

Container box availability holding above 0.7 in Singapore



Source: Bloomberg

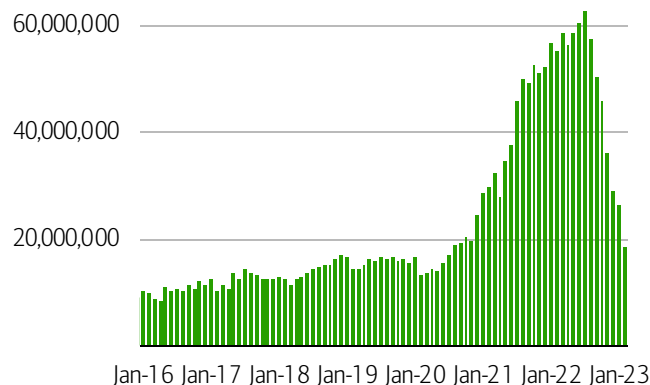
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Container liner monthly revenue

Taiwan monthly revenues fading more aggressively in February 2023.

Exhibit 61: Evergreen – monthly revenue (NT\$K)

Evergreen Feb monthly revenues: -66% YoY, -29% MoM

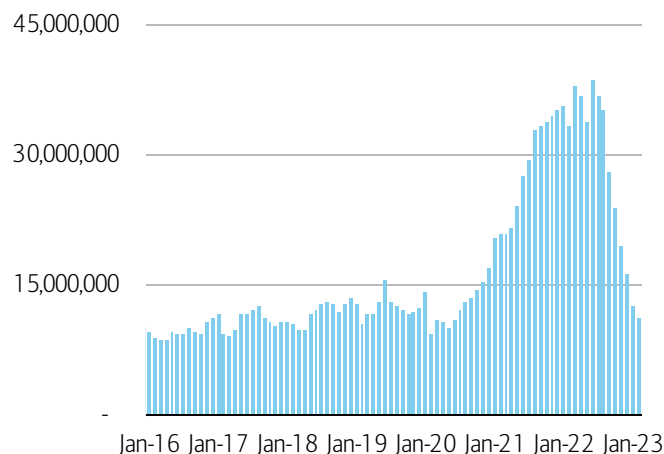


Source: Company reports

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Exhibit 62: Yang Ming – monthly revenue (NT\$K)

Yang Ming Feb monthly revenues: -66% YoY, -20% MoM



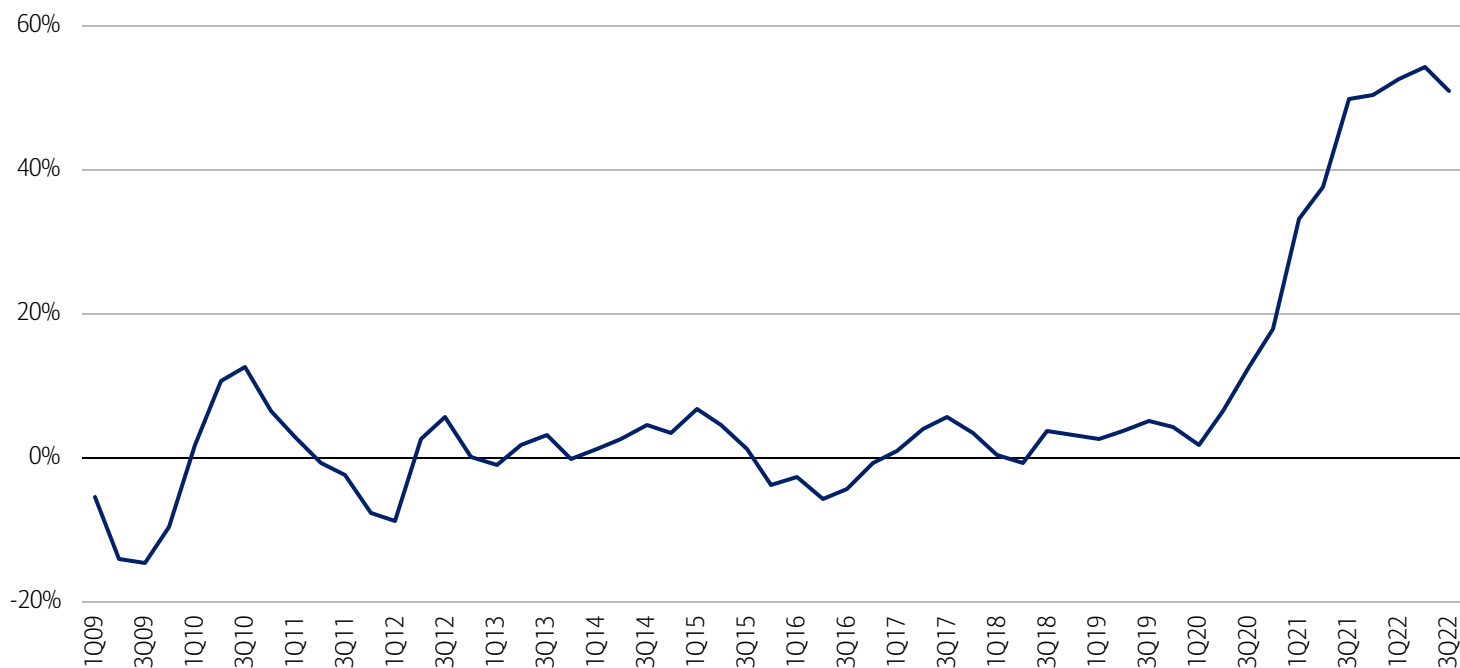
Source: Company reports

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Container liner average EBIT margins

Exhibit 63: Container liner average quarterly EBIT margin, 2009-22

3Q22 average EBIT margins at ~50%



Source: Linerlytica

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Vessel supply-side trends

Exhibit 64: Container shipping orderbook to fleet, 1996-2023

Container shipping orderbook stands at around 29-30% of fleet right now

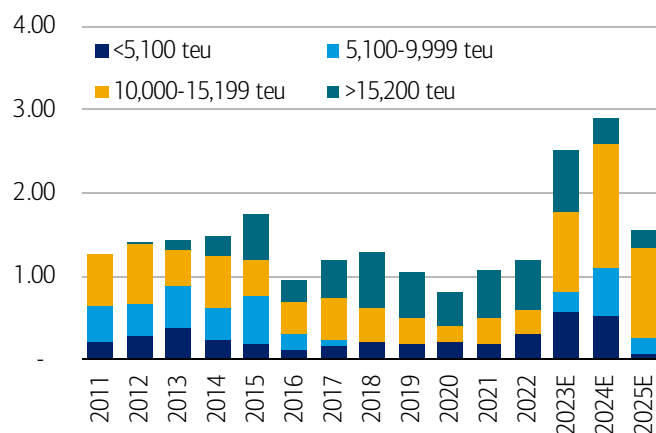


Source: Clarksons

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Exhibit 65: Delivery by vessel size (mn TEU), 2011-2023E

Deliveries to ramp again in 2023 with ~ 2.4mn TEU for delivery

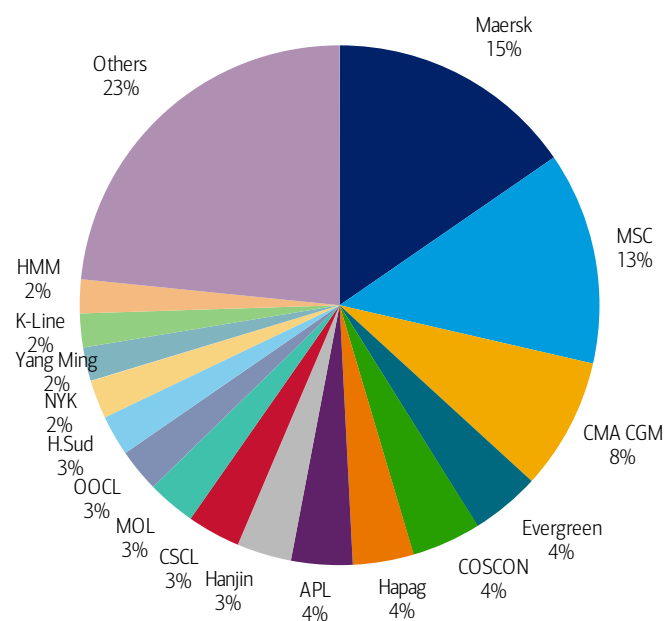


Source: Alphaliner

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Exhibit 66: Container liner capacity share in 2013

Top 16 carriers in 2013 = 77% market share

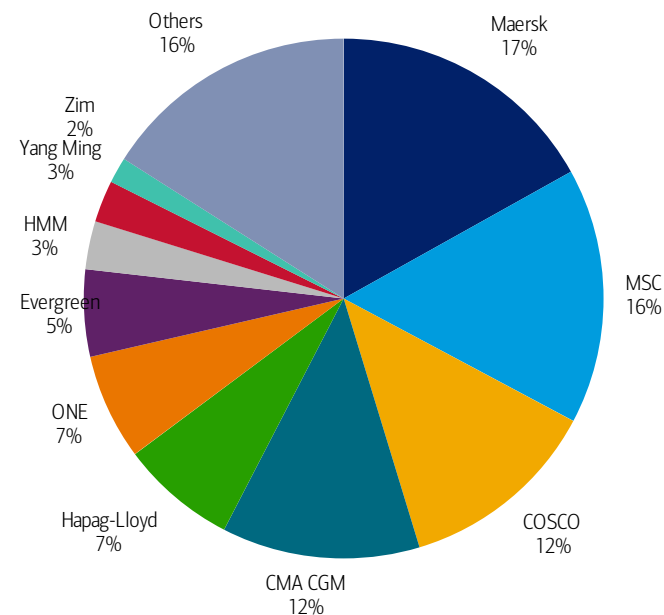


Source: Alphaliner

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Exhibit 67: Container liner capacity share in 2021

Top 10 carriers in 2021 = 85% market share

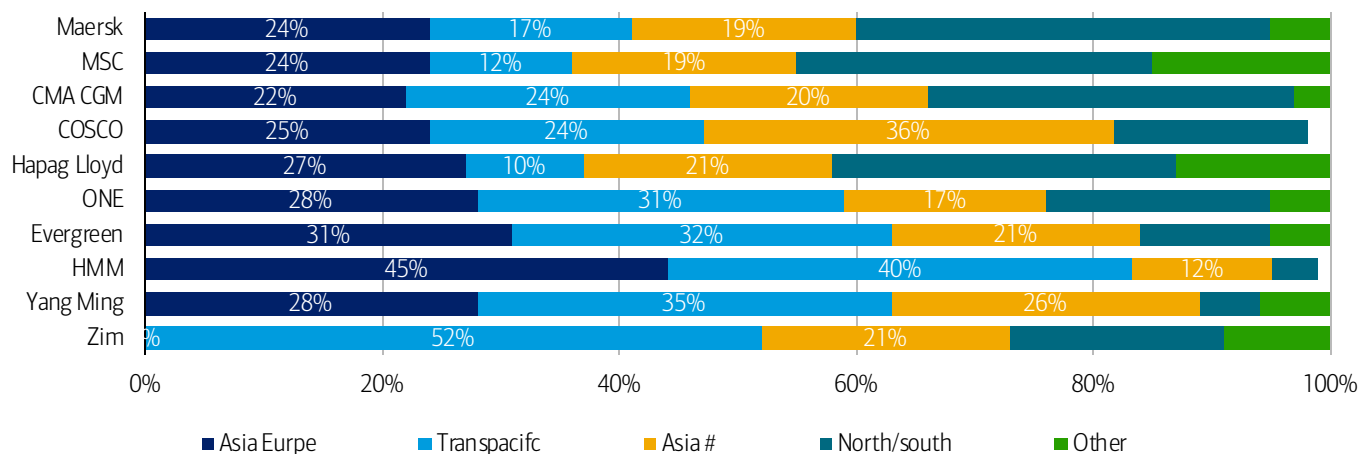


Source: Alphaliner

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Exhibit 68: Container liner capacity by route

Container liner capacity deployment by route

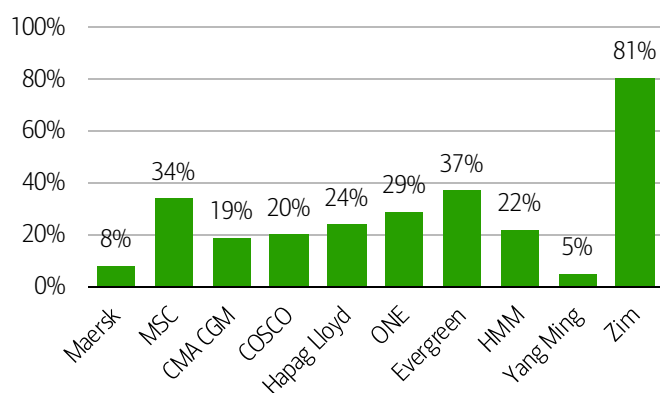


Source: Alphaliner # Asia includes Middle East, India, Australia

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Exhibit 69: Container liners – orderbook to fleet

Larger orderbooks for Zim, Evergreen and MSC

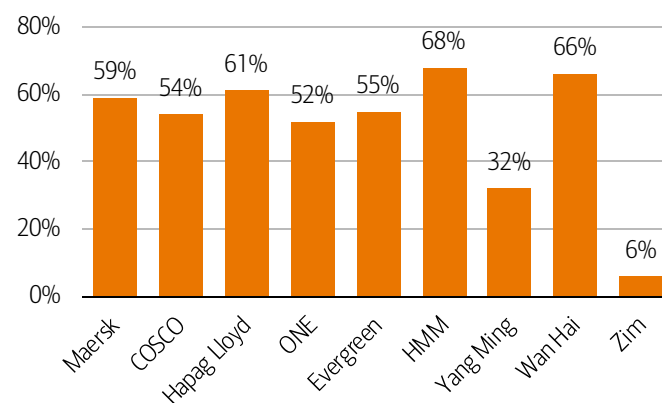


Source: Alphaliner

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Exhibit 70: Container liners - % of fleet which is owned

Liners own on average ~ 50% of their fleet



Source: Alphaliner

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Container shipping costs

Exhibit 71: Average containership charter rate (US\$/day), 2008-23
Average charter rates down MoM again in March 2023

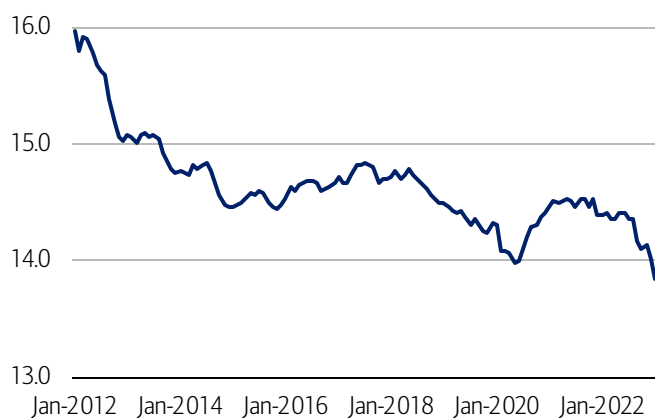


Source: Clarksons

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Container vessel sailing speeds

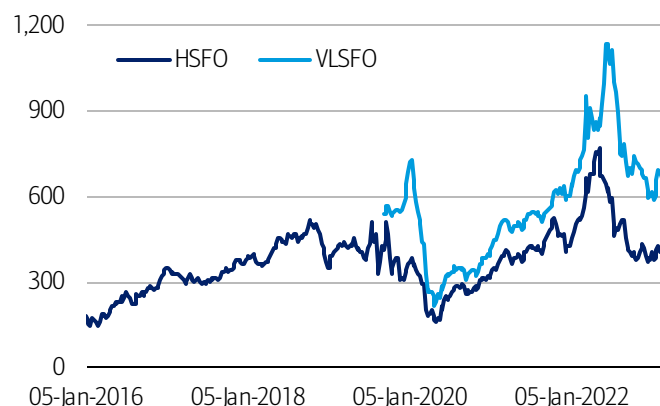
Exhibit 73: Container vessel average sailing speed (knots), 2012-23
Container vessels now sailing below 14 knots



Source: Clarksons

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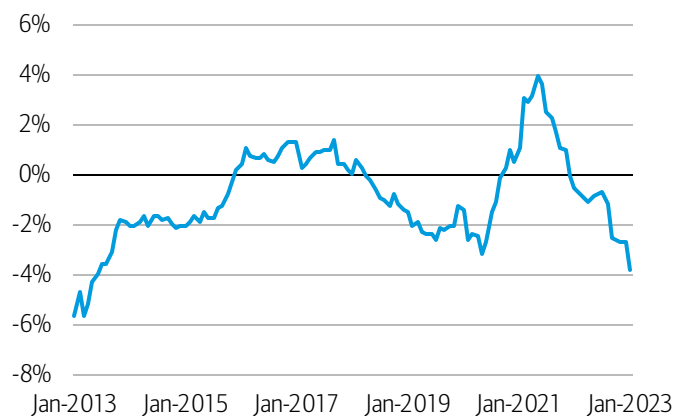
Exhibit 72: Singapore bunker price (US\$/tonne), 2016-23
VLSFO is at ~US\$562/tonne



Source: Clarksons

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Exhibit 74: Container vessel speeds (% YoY growth), 2013-23
Vessel speed now slower YoY



Source: Clarksons

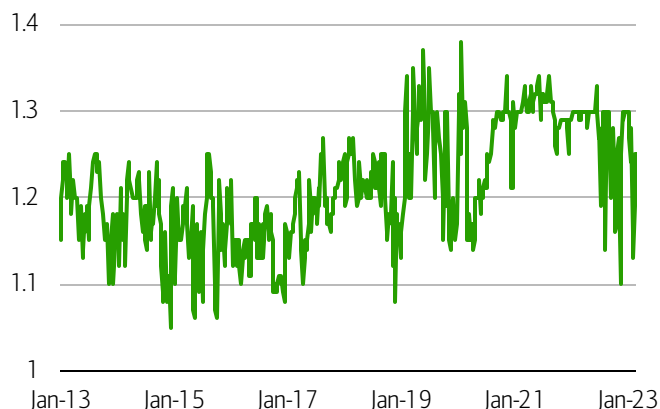
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Tanker shipping

Freight rates

Exhibit 75: VLCC supply vs demand in Middle East

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 76: Tanker quarterly rate average (US\$/day), 2022-23

VLCC average rates trending QoQ lower in 1Q23

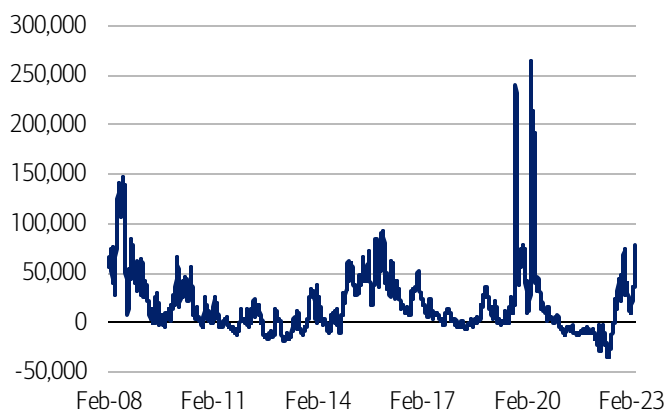
Date	2Q22	3Q22	4Q22	1Q23
VLCC	-21,670	9,747	42,823	15,025
Suezmax	35,793	50,411	88,602	74,249
Aframax	35,668	46,440	78,728	61,425
MR	33,746	39,878	41,411	28,132
LR2	27,038	33,821	46,192	55,000
% YoY				
VLCC	185%	-199%	nm	-185%
Suezmax	-10658%	-1959%	nm	242%
Aframax	1418%	7427%	nm	181%
MR	390%	586%	nm	189%
LR2	32%	67%	nm	171%
% QoQ				
VLCC	22%	-145%	339%	-65%
Suezmax	65%	41%	76%	-16%
Aframax	63%	30%	70%	-22%
MR	246%	18%	4%	-32%
LR2	33%	25%	37%	19%

Source: Clarksons

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Exhibit 77: VLCC freight rates (US\$/day), 2008-23

Baltic VLCC rates surging higher through March

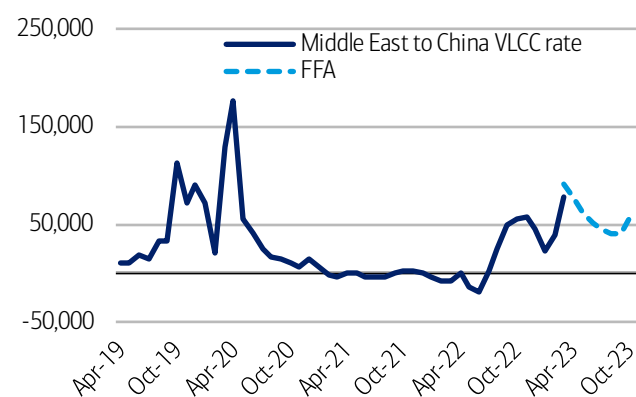


Source: Clarksons

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Exhibit 78: VLCC freight forward agreement rates (US\$/day)

Near term forward curve elevated but settling back to 40-55k per day

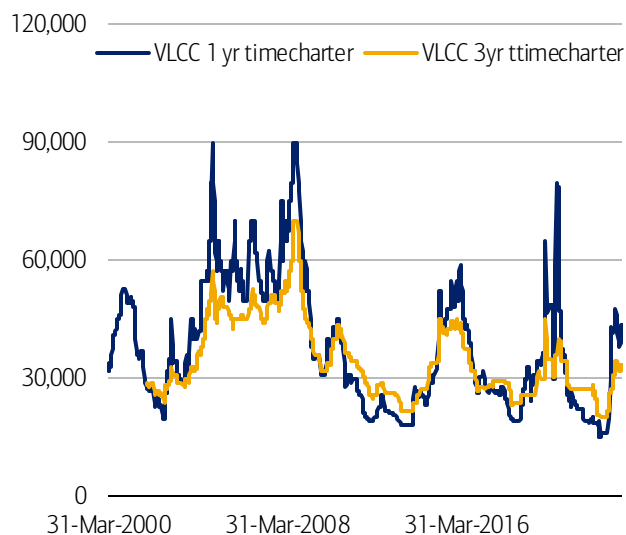


Source: Clarksons, Baltic Exchange

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Exhibit 79: VLCC time charter rates (US\$/day), 2000-23

One year VLCC timecharter rates at above US\$40k per day

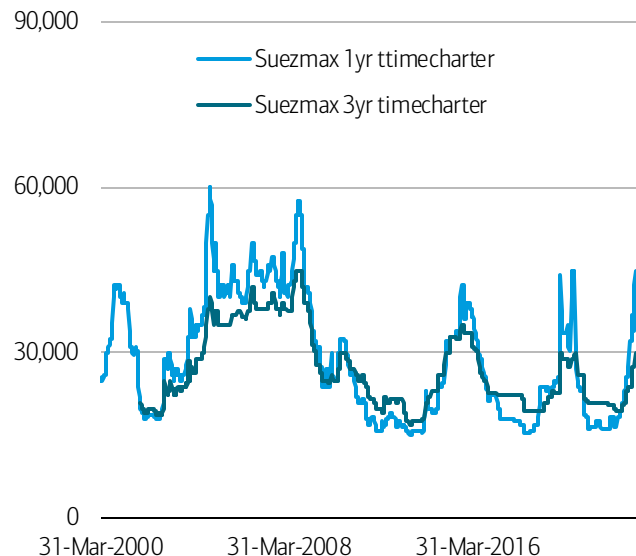


Source: Clarksons

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Exhibit 80: Suezmax time charter rates (US\$/day), 2000-23

One year Suezmax timecharter rates at above US\$40k per day

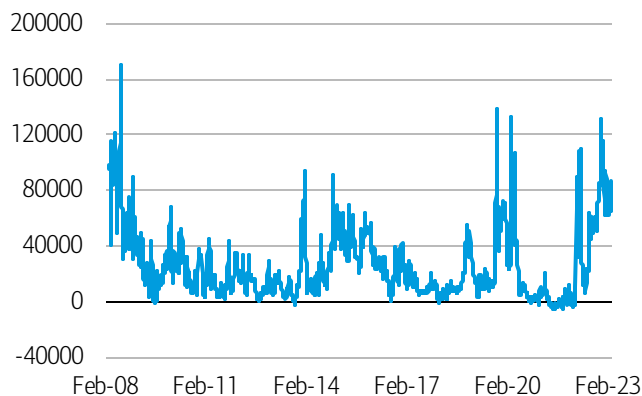


Source: Clarksons

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Exhibit 81: Suezmax freight rates (US\$/day), 2008-23

Baltic Suezmax rates staying firm

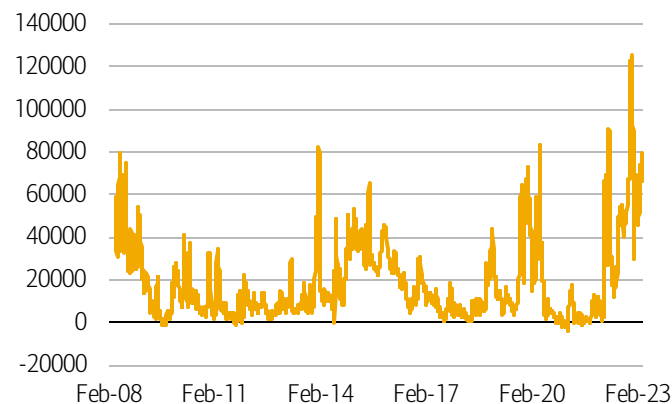


Source: Clarksons

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Exhibit 82: Aframax freight rates (US\$/day), 2008-23

Aframax rates staying firm in early March 2023



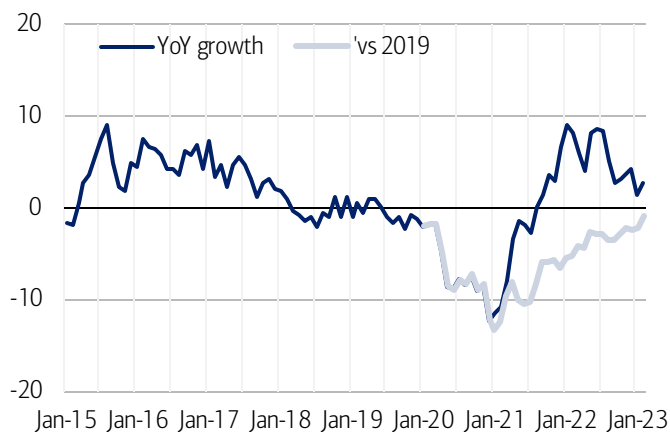
Source: Clarksons

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Crude tanker demand

Exhibit 83: Seaborne crude oil volumes (% YoY), 2015-23

Seaborne crude tanker volumes remain ~2.5% below pre COVID levels

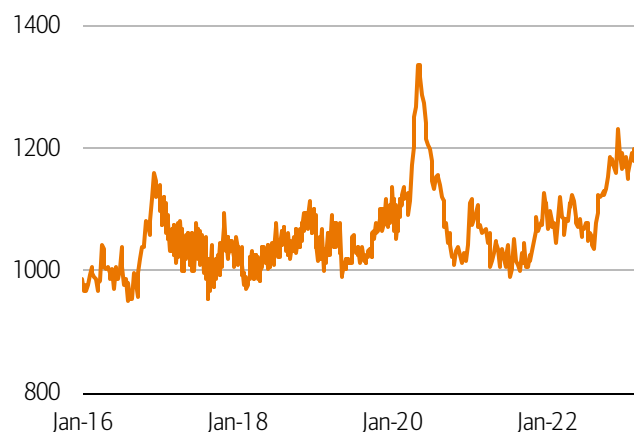


Source: Clarksons

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Exhibit 84: Crude tanker barrels on the water (mn bbl), 2016-23

Demand for tankers remains firm given longer distance sailings

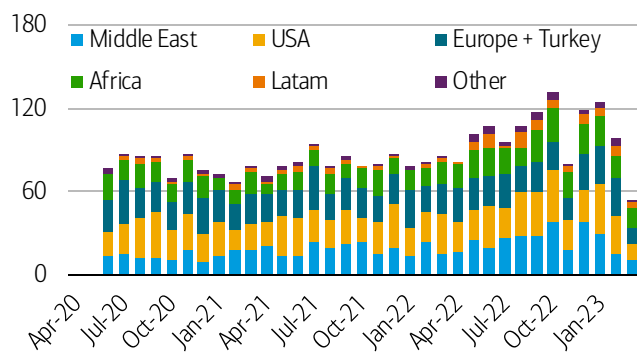


Source: Bloomberg

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Exhibit 85: Western Europe seaborne monthly crude imports from non-Russian producers (mn bbl per month)

European imports from non-Russia have ramped in recent months

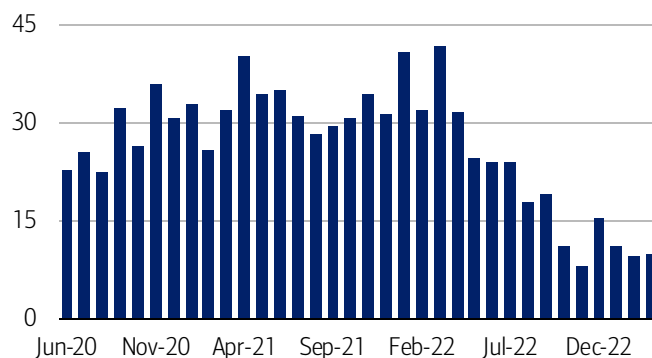


Source: Vortexa

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Exhibit 86: Western Europe seaborne crude imports from Russia (mn bbl per month)

European imports from Russia trending lower

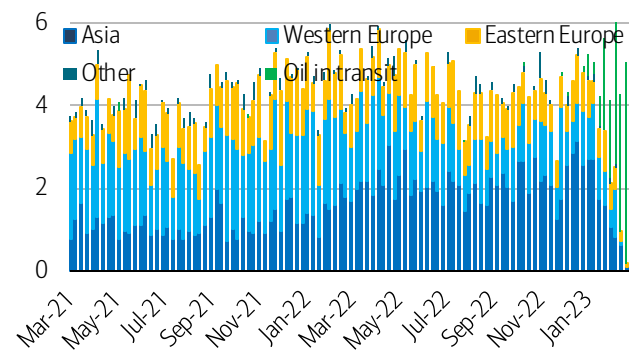


Source: Vortexa

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Exhibit 87: Russian seaborne crude exports (k b/d), 2023

Decrease in total Russian crude exports for now

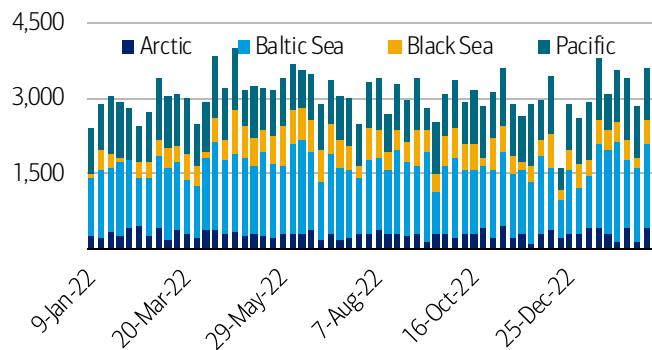


Source: Vortexa

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Exhibit 88: Russian crude by port (k b/d), 2023

Russian exports broadly holding for now

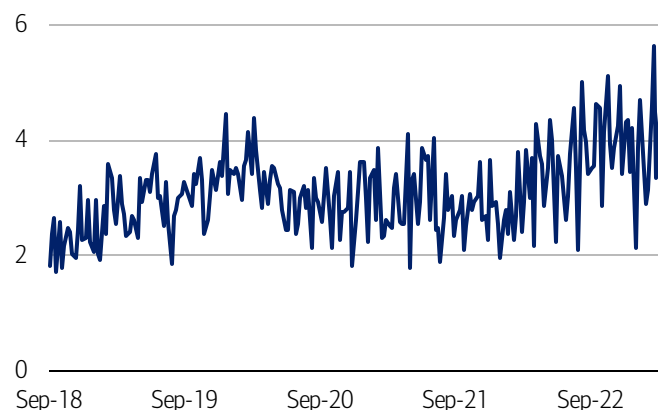


Source: Vortexa

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Exhibit 89: US crude exports (mn b/d)

US crude exports remain robust in early March 2023

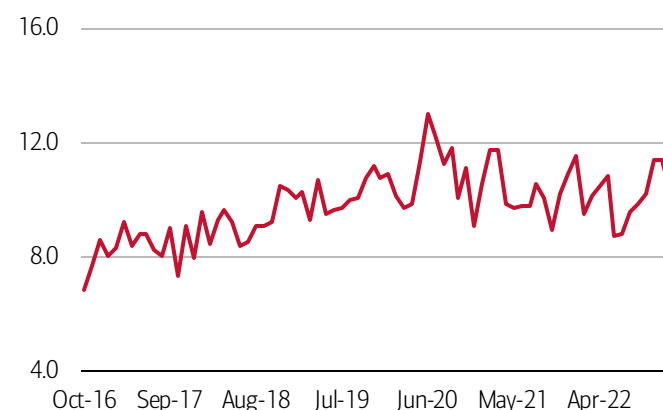


Source: Bloomberg

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Exhibit 90: Chinese crude imports (mn b/d)

China crude imports rebounded in early 2023



Source: Bloomberg

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Tanker supply**Exhibit 91: Crude tanker orderbook as % of fleet, 1996-23**

Crude tanker orderbook to fleet down below 2.9%

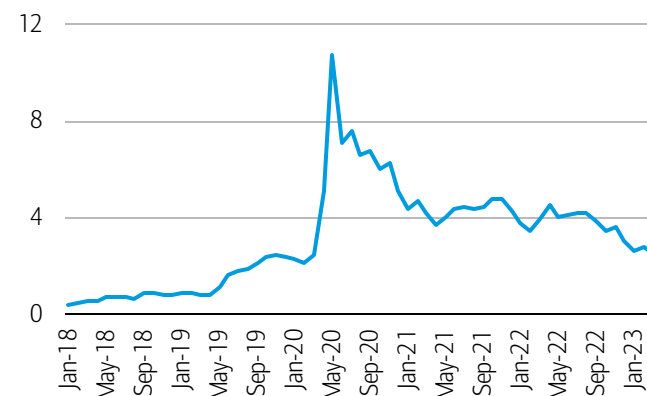


Source: Clarksons

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Exhibit 92: Crude tanker storage as % of fleet, 2018-23

Tanker storage down to around 2.6% of fleet



Source: Clarksons

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Dry bulk shipping

Freight rates

Exhibit 93: Exhibit 91: Baltic Dry Index, 1999-2023

BDI return to 1,512



Source: Clarksons

BofA GLOBAL RESEARCH

Exhibit 94: Quarterly average dry bulk rates (US\$/day), 2022-23

Average 1Q23 freight rates lower on seasonality

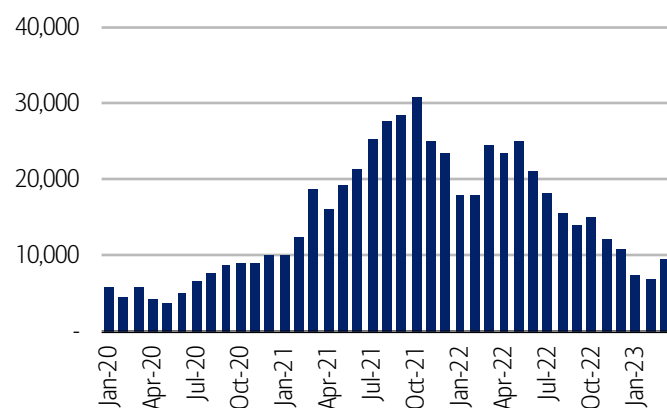
Date	1Q22	2Q22	3Q22	4Q22	1Q23
BDI	1,977	2,530	1,870	1,523	950
Capesize	14,746	21,599	16,906	14,906	8,386
Panamax 82	23,218	28,901	18,402	16,050	10,895
Supramax 58	25,156	27,566	21,396	14,837	9,586
Handysize 38	24,084	26,618	21,514	15,028	9,292
% YoY					
BDI	14%	-9%	-50%	-56%	-52%
Capesize	-14%	-31%	-60%	-65%	-43%
Panamax 82	27%	12%	-45%	-45%	-53%
Supramax 58	51%	8%	-38%	-51%	-62%
Handysize 38	45%	18%	-33%	-52%	-61%
% QoQ					
BDI	-43%	28%	-26%	-19%	-38%
Capesize	-65%	46%	-22%	-12%	-44%
Panamax 82	-20%	24%	-36%	-13%	-32%
Supramax 58	-17%	10%	-22%	-31%	-35%
Handysize 38	-23%	11%	-19%	-30%	-38%

Source: Clarksons

BofA GLOBAL RESEARCH

Exhibit 95: Handysize spot monthly average (US\$/day), 2020-23 #

Spot handysize averaged US\$9.7k/day in March 2023



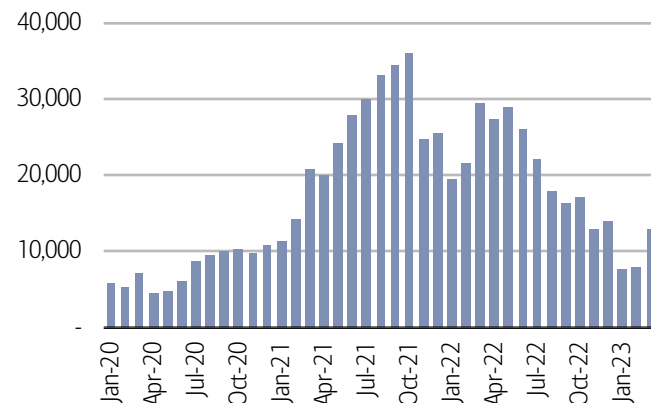
Source: Clarksons, BofA Global Research estimates

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

BofA GLOBAL RESEARCH

Exhibit 96: Supramax spot monthly average (US\$/day), 2020-23 *

Spot supramax averaged US\$12.9k/day in March 2023



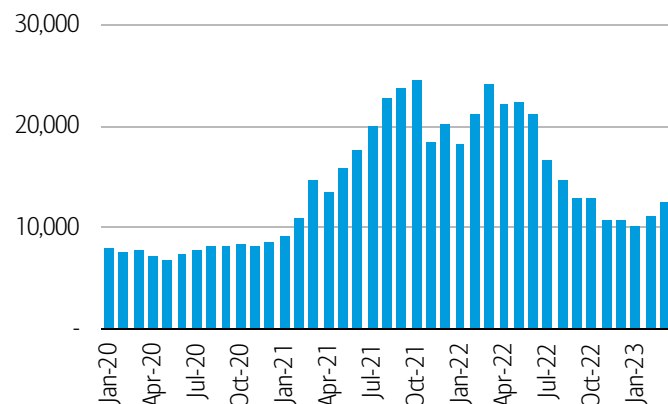
Source: Clarksons, BofA Global Research estimates

* Commission adjusted to be comparable to PacBasin achieved rates

BofA GLOBAL RESEARCH

Exhibit 97: Handysize 1yr TC monthly average (US\$/day), 2020-23 #

1yr time charter handysize averaged US\$12.5k/day in March 2023



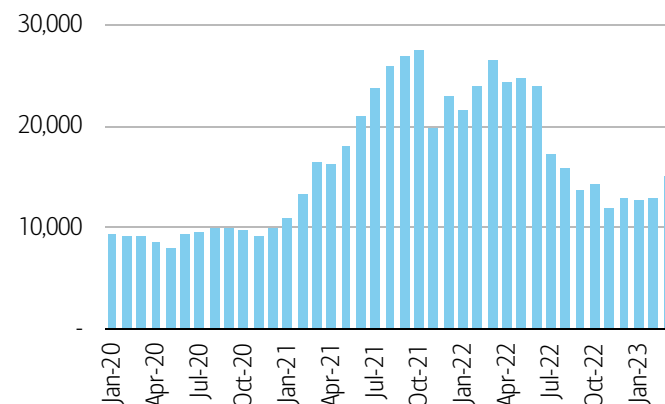
Source: Clarksons, BofA Global Research estimates

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

BofA GLOBAL RESEARCH

Exhibit 98: Supramax 1yr TC monthly average (US\$/day), 2020-23 *

1yr time charter supramax averaging US\$15k/day in March 2023



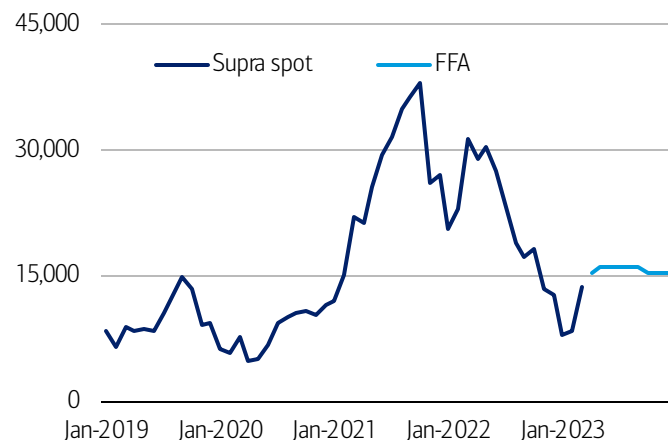
Source: Clarksons, BofA Global Research estimates

* Commission adjusted to be comparable to PacBasin achieved rates

BofA GLOBAL RESEARCH

Handysize & Supramax FFA outlook**Exhibit 99: Handysize - Freight Forward Agreement, 2019-23**

Supra forward curves pointing to healthy rates ahead

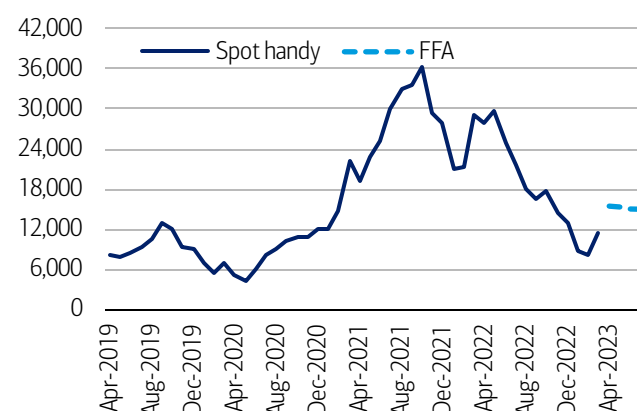


Source: Bloomberg

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Exhibit 100: Handysize - Freight Forward Agreement, 2019-23

Handy forward curves point to a recovery into 2Q23

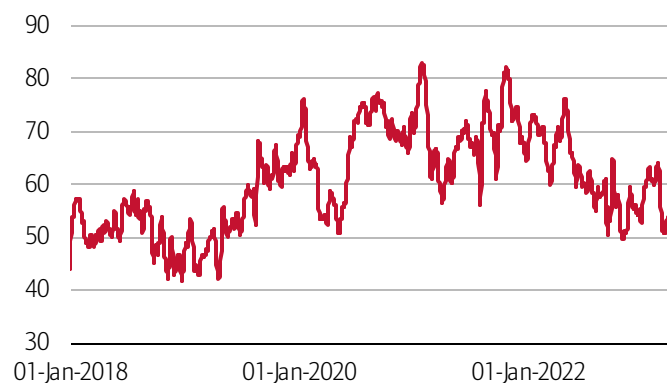


Source: Bloomberg

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Port congestion**Exhibit 101: Dry bulk fleet at port in China (anchor or berth), mn dwt**

Vessels waiting at Chinese ports have rebounded off the bottom

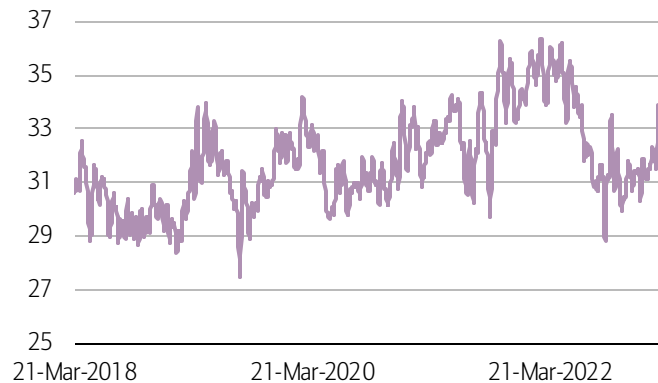


Source: Clarksons

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Exhibit 102: Daily dry bulk fleet at port (anchor or berth) (%)

~32.7% of dry bulk fleet at port



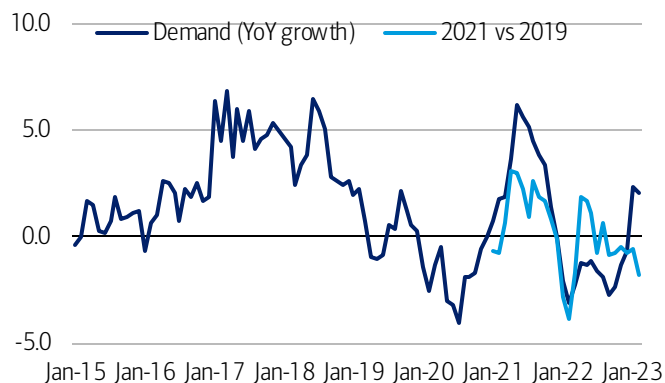
Source: Clarksons

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Dry bulk demand reads

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

Dry bulk demand slightly below 2019 levels in Feb 2023

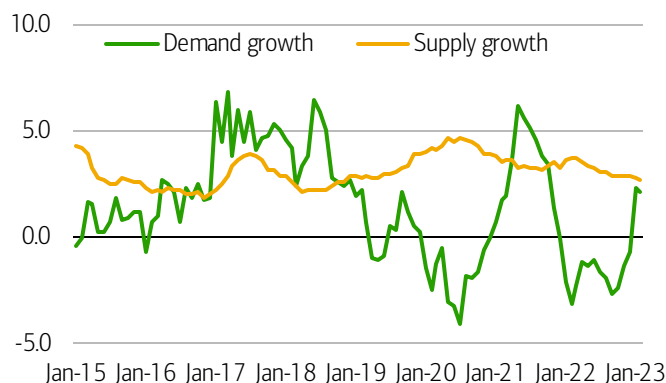


Source: Clarksons

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Exhibit 104: Bulk monthly demand & supply growth (% YoY), 2015-23

Bulk demand growth rebound vs supply growth of +2.1% YoY

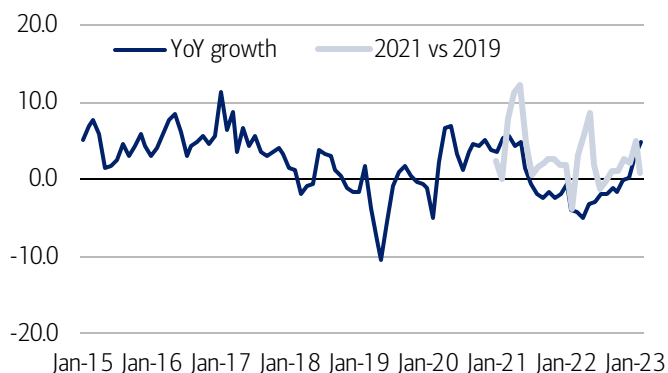


Source: Clarksons

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Exhibit 105: Iron ore demand growth (% YoY), 2015-23

Iron ore demand trending at 4.8% above 2019 levels in Feb 2023

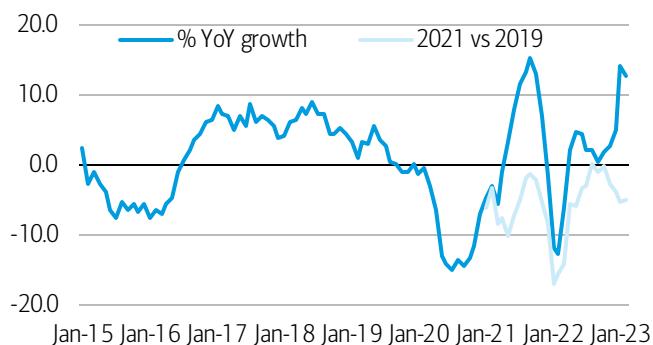


Source: Clarksons

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Exhibit 106: Coal demand growth (% YoY), 2015-23

Coal demand growth trending at +12.7% above 2019 levels

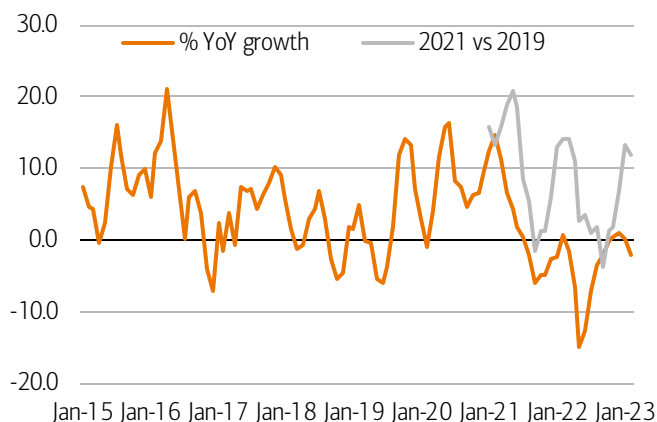


Source: Clarksons

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Exhibit 107: Grain demand growth (% YoY), 2015-23

Grain demand at 2.0% below 2019 levels in Feb 2023

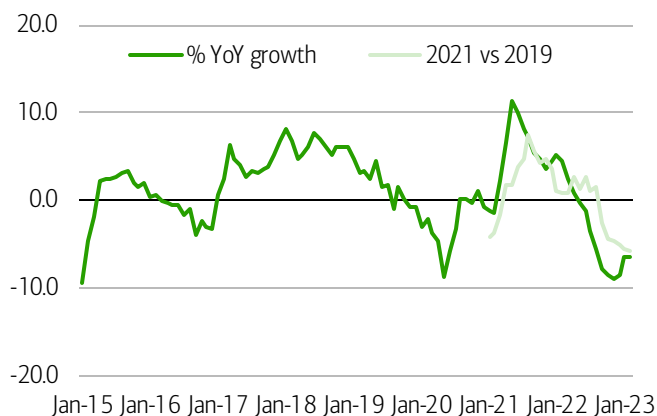


Source: Clarksons

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Exhibit 108: Minor bulk demand growth (% YoY), 2015-23

Minor bulk demand growth trending at -6.5% below 2019 levels in Feb 2023

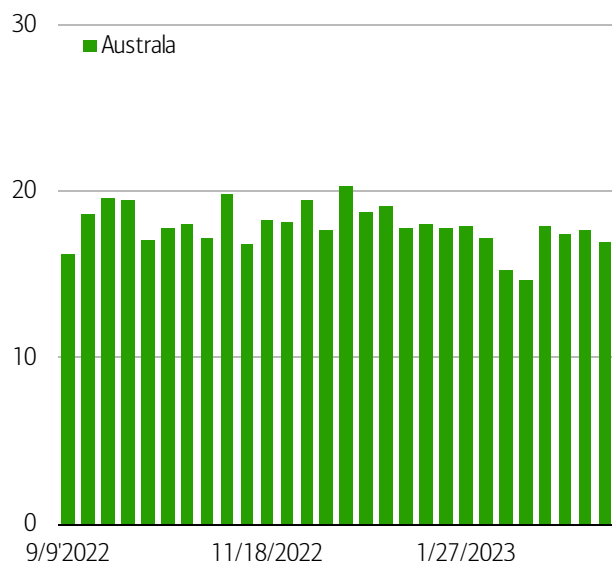


Source: Clarksons

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Exhibit 109: Australia iron ore exports (mn tn), 2022-23

Aussie iron ore shipments ramping off the seasonal bottom

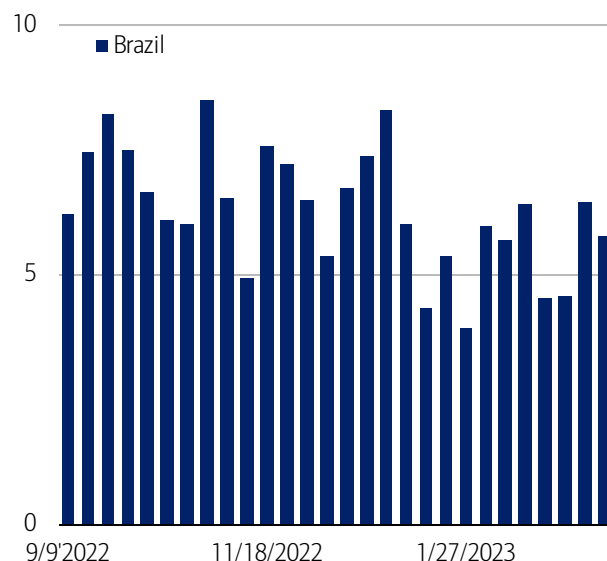


Source: Marcura

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Exhibit 110: Brazil iron ore exports (mn tn), 2022-23

Brazil iron ore shipments ramping off the bottom

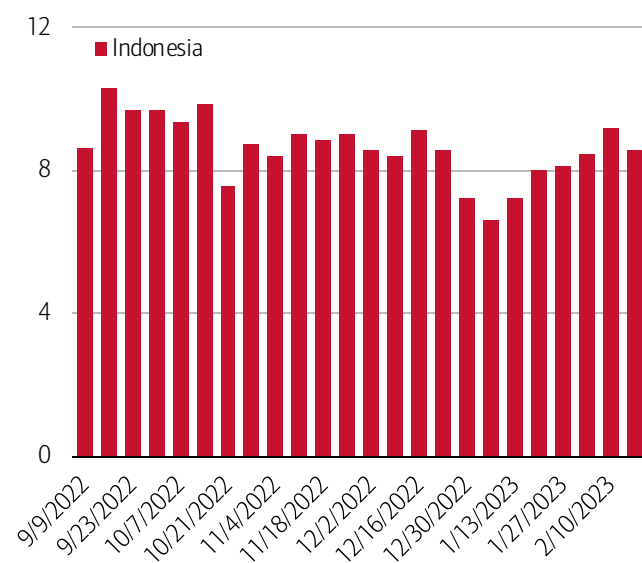


Source: Marcura

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Exhibit 111: Indonesian coal shipments (mn tn), 2022-23

Indonesian exports also seeing a nice demand push

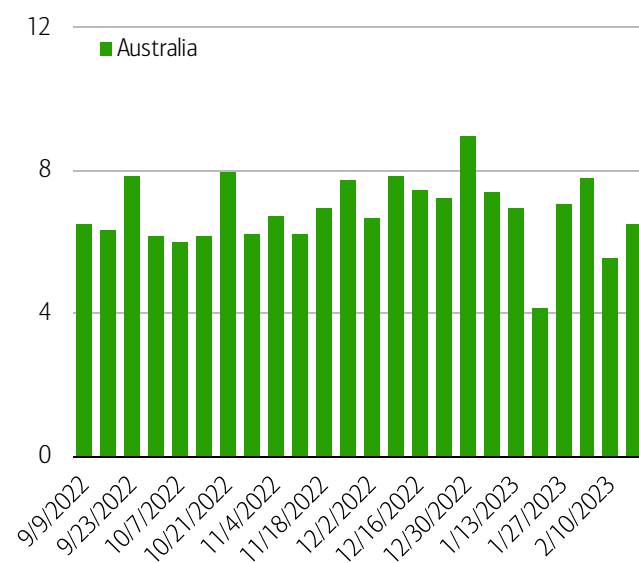


Source: Marcura

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Exhibit 112: Australian coal shipments (mn tn), 2022-23

Aussie coal shipments have picked up



Source: Marcura

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Methodology explained

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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 %yoy growth, the 2-year and 3-year %change by matching calendar days (Jan 1 '22 matched to Jan 1 '21, Jan 1, 2020 and Jan 1, 2019, respectively). The % change is calculated based on the 7-day moving average of spending levels.

Unless otherwise noted, the monthly subsector data are adjusted to control for seasonality and other factors.

The payroll and tax direct deposit data based on the BAC internal data is derived by anonymizing and aggregating direct deposit data from Bank of America consumer deposit accounts in the US and analyzing that data at a highly aggregated level. Additional information about the methodology used to aggregate the data is available upon request.

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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster ^{R1}
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Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

^{R1} 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.

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