

## Airfreight - Global

# Air Cargo Watch #9 – Demand headwinds ease, but supply pressures still building

Industry Overview

## Monthly Air Cargo Watch high frequency tracker

Our monthly Air Cargo Watch includes high frequency airfreight data to check the pulse of the industry. Demand headwinds appear to be slowly abating with an easing pace of YoY declines— although demand is expected to remain muted until the seasonal peak later this year. But oversupply pressures are building – with air cargo supply already 5% above pre-COVID with more pressure ahead as Chinese belly capacity ramps. We expect more downside to air cargo rates currently at 22% above pre-COVID and see air cargo profitability moving towards breakeven into 2H23.

### Demand: Demand headwinds appear to have passed worst

Air cargo demand fell -5% YoY in May 2023 showing an easing rate of decline relative to January 2023 at -15% YoY. Demand from Asia and Europe remained weak at 88% and 84% of 2019 levels, respectively, while North America stayed above 2019 levels at 105% in May. Leading indicators point towards a sluggish 3Q for demand – but airlines are somewhat hopeful for a seasonal pickup into 4Q23.

### Supply: But supply pressure still building from here

Air cargo supply moved above pre-COVID levels in April 2023 and has moved higher to 105% of 2019 levels in May 2023. The increase was driven by restoration of belly capacity which is back to 85% of 2019 levels, while freighter capacity remains 118% of 2019 levels. We expect sustained normalization of belly capacity ahead as Chinese airlines continue to ramp international capacities in 2H23.

### Rates: Downward pressure to continue into 2H23

Air cargo rates continue to fall – declining -5% MoM in June 2023 and -4% MoM so far in July 2023. Average rates remain around 22% above 2019 levels right now and we see further downside pressure ahead as supply continues to normalize. We estimate cargo margins are likely to contract to around 10% in 2Q23 and are expected to fall towards breakeven to loss making levels into 2H23.

### Airlines: Headwinds from lower cargo yield ahead

Cargo yields for CAL/EVA fell to 22%/25% above 2019 levels in May while cargo capacity was at 4%/26% above pre-COVID levels for CAL/EVA respectively. Investors seem enthusiastic about the outlook for passenger profits into the peak with CAL/EVA seeing passenger yields at 24%/29% above pre-COVID levels with passenger capacity restored to 83%/100% of 2019 levels in May. But with the stocks already at peak multiples, we see current valuations as overly optimistic and see building passenger supply driving average ticket prices lower over time.

11 July 2023

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CAL: China Airlines

EVA: EVA Airways

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**Refer to important disclosures on page 18 to 19.**

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Timestamp: 11 July 2023 11:58AM EDT

# Airfreight rates

## Exhibit 1: Weekly Global Baltic Airfreight Index

Baltic Airfreight index now at 1,900 down -49% YoY

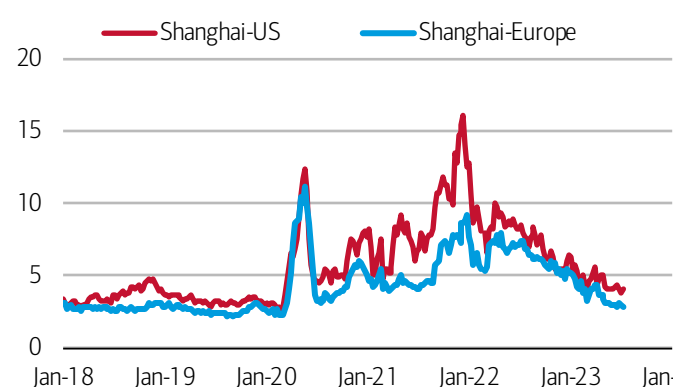


Source: TAC

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## Exhibit 2: Baltic Airfreight Shanghai to US and Europe (US\$/kg)

Shanghai-Europe +17% and Shanghai-US +26% vs 2019 in the latest week



Source: TAC

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## Exhibit 3: Key airfreight rates overview table, % change on 3Q23 data

Global rates are down -11% QoQ in 3Q23 so far

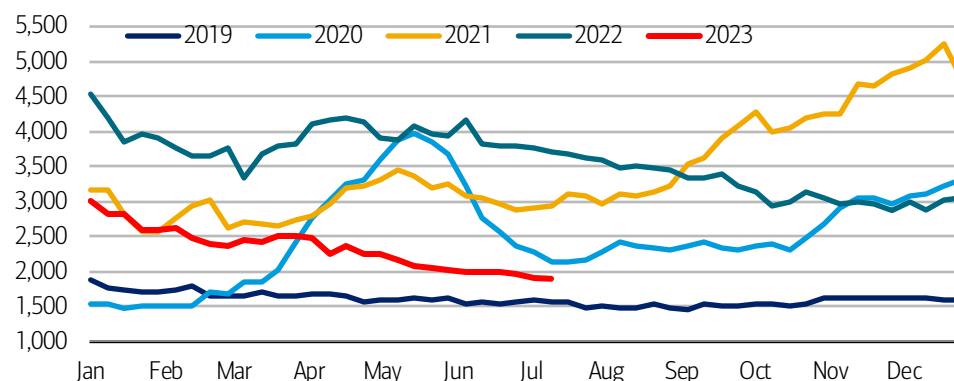
|             | Baltic Airfreight - Global | BAF-HK       | BAF-Shanghai | BAF-Singapore | BAF-London   | BAF-Chicago  | Shanghai-Europe | Shanghai-US | HK-Europe  | HK-US      | HK-SE Asia | London-US  | Singapore-SE Asia |
|-------------|----------------------------|--------------|--------------|---------------|--------------|--------------|-----------------|-------------|------------|------------|------------|------------|-------------------|
| 1Q21        | 2,803                      | 2,828        | 5,165        | 423           | 2,547        | 1,702        | 4.5             | 6.1         | 4.3        | 5.6        | 1.8        | 4.9        | 1.8               |
| 2Q21        | 3,136                      | 3,545        | 5,867        | 425           | 2,755        | 1,672        | 4.5             | 7.7         | 4.6        | 8.0        | 1.8        | 5.5        | 1.9               |
| 3Q21        | 3,284                      | 3,724        | 6,521        | 412           | 2,664        | 1,702        | 5.0             | 8.5         | 4.8        | 8.5        | 2.0        | 5.0        | 1.8               |
| 4Q21        | 4,562                      | 5,230        | 9,898        | 417           | 2,928        | 2,322        | 7.8             | 12.8        | 7.5        | 11.6       | 2.5        | 4.9        | 1.8               |
| 1Q22        | 3,844                      | 4,300        | 7,373        | 484           | 2,771        | 2,151        | 6.4             | 9.0         | 6.0        | 9.3        | 2.3        | 4.5        | 2.1               |
| 2Q22        | 3,995                      | 4,226        | 7,717        | 564           | 2,890        | 2,424        | 7.2             | 8.9         | 6.1        | 8.9        | 2.3        | 4.2        | 2.5               |
| 3Q22        | 3,529                      | 3,909        | 6,845        | 600           | 2,340        | 2,312        | 6.6             | 7.7         | 6.3        | 7.7        | 2.3        | 3.5        | 2.6               |
| 4Q22        | 3,002                      | 3,288        | 5,477        | 528           | 2,210        | 1,973        | 5.5             | 5.9         | 5.7        | 6.1        | 2.1        | 3.3        | 2.3               |
| 1Q23        | 2,591                      | 2,736        | 4,542        | 495           | 1,877        | 1,958        | 4.3             | 5.0         | 4.5        | 5.2        | 1.9        | 2.7        | 2.2               |
| 2Q23        | 2,148                      | 2,742        | 3,777        | 425           | 1,512        | 1,436        | 3.3             | 4.4         | 3.8        | 4.9        | 1.8        | 1.9        | 1.9               |
| <b>3Q23</b> | <b>1,906</b>               | <b>3,049</b> | <b>3,381</b> | <b>378</b>    | <b>1,204</b> | <b>1,346</b> | <b>2.9</b>      | <b>4.0</b>  | <b>3.6</b> | <b>4.5</b> | <b>1.7</b> | <b>1.4</b> | <b>1.7</b>        |
| QoQ         | -11%                       | 11%          | -10%         | -11%          | -20%         | -6%          | -11%            | -10%        | -4%        | -7%        | -8%        | -29%       | -11%              |
| YoY         | -46%                       | -22%         | -51%         | -37%          | -49%         | -42%         | -55%            | -48%        | -42%       | -41%       | -27%       | -61%       | -37%              |
| YTD YoY     | -40%                       | -35%         | -46%         | -15%          | -41%         | -28%         | -46%            | -47%        | -32%       | -44%       | -20%       | -47%       | -15%              |
| vs 2019     | 26%                        | 86%          | 28%          | 83%           | 37%          | 3%           | 26%             | 28%         | 40%        | 39%        | 52%        | 41%        | 83%               |

Source: TAC, BofA Global Research

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## Exhibit 4: Weekly Global Baltic Airfreight Index by year, 2019-23

Latest weekly rate index still on a weakening trend



Source: TAC, BofA Global Research

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# Airfreight demand

## Global cargo traffic

**Exhibit 5: Monthly global air cargo demand growth YoY %**

Demand was down -6.6% YoY in April and -5.2% in May

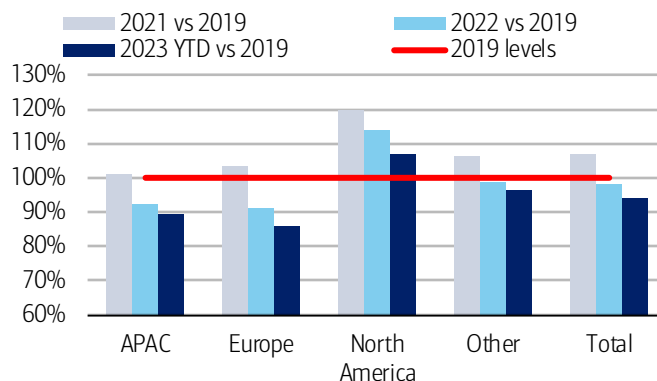


Source: BofA Global Research estimates, IATA

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**Exhibit 6: Air cargo demand (CTK) vs 2019 levels by major regions**

2022 demand was 2% below 2019 levels, YTD2023 so far at -6% vs 2019

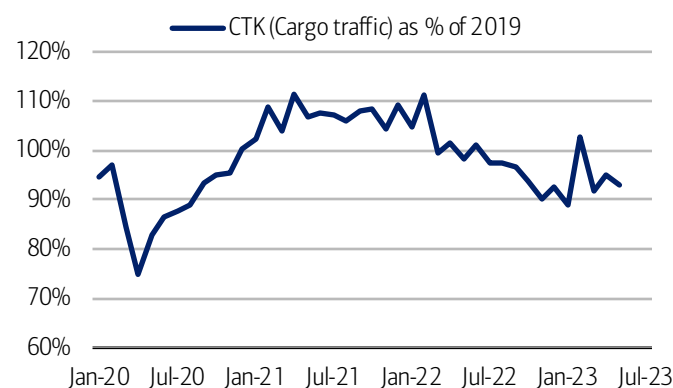


Source: IATA, BofA Global Research. YTD up to February 2023.

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**Exhibit 7: Air cargo demand (CTK) as % of 2019 levels**

Demand was at 95% of 2019 levels in April and 93% in May

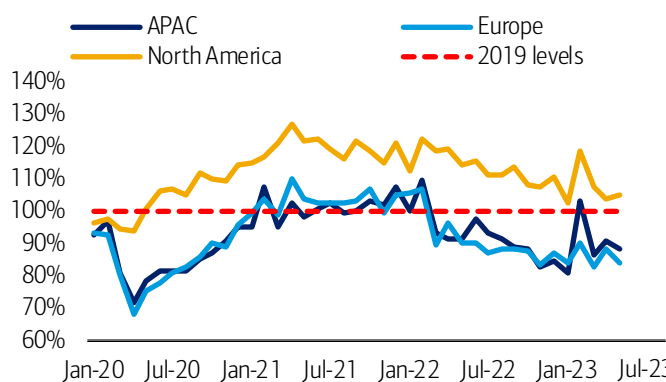


Source: BofA Global Research estimates

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**Exhibit 8: Monthly air cargo demand by major regions vs 2019 levels**

Demand from North America declined but continues to be above 2019 levels

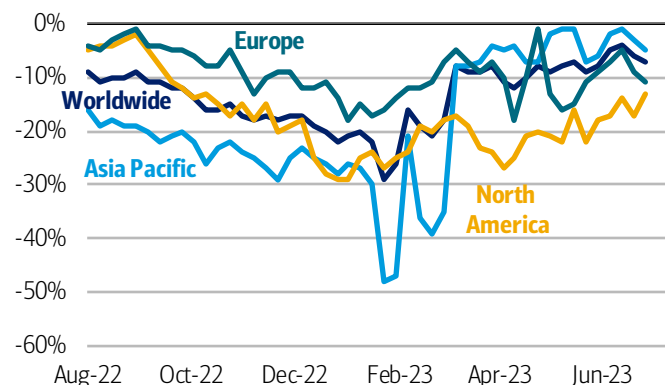


Source: IATA, BofA Global Research

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**Exhibit 9: Weekly cargo chargeable weight, YoY % since Aug 2022**

Global demand was down -7% YoY in the week of 2<sup>nd</sup> July 2023

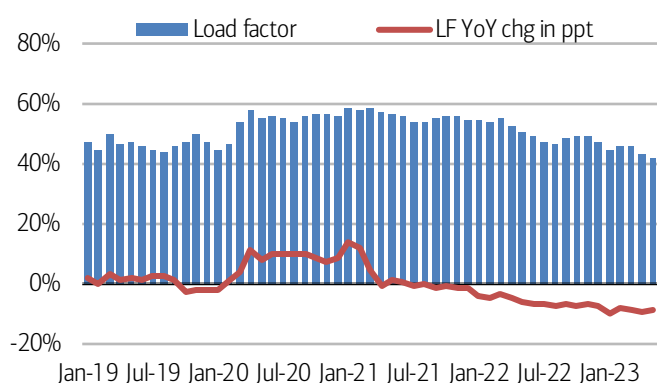


Source: WorldACD, BofA Global Research

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**Exhibit 10: Global cargo load factor and YoY changes in ppts**

Load factor down to 45-46% in Feb-Mar, -8ppt YoY

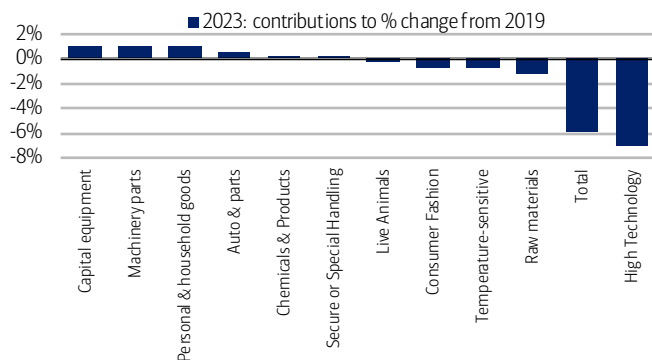


Source: IATA, BofA Global Research estimates

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**Exhibit 11: China air cargo: Growth by industry v. 2019, 2M2023**

Capital equipment &amp; machinery made positive contributions in 2023

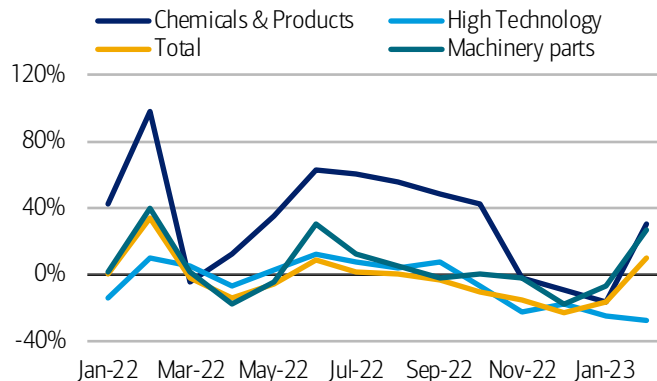


Source: company report

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**Exhibit 12: China monthly air cargo trade: % change from 2019 levels**

But growth in high-tech products is still worsening

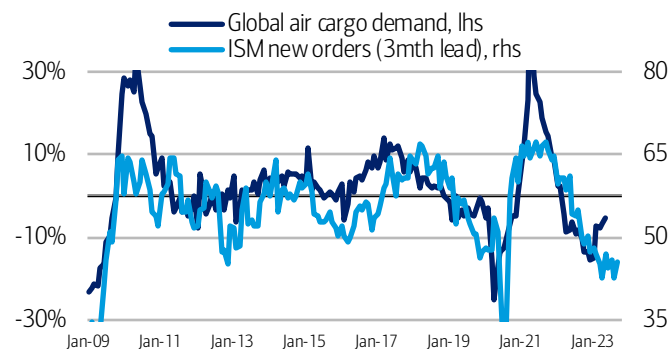


Source: company report

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**Leading demand indicators****Exhibit 13: Global air cargo demand yoy growth v. ISM new orders**

ISM new orders lead air cargo demand by 3 months with 0.65 correlations

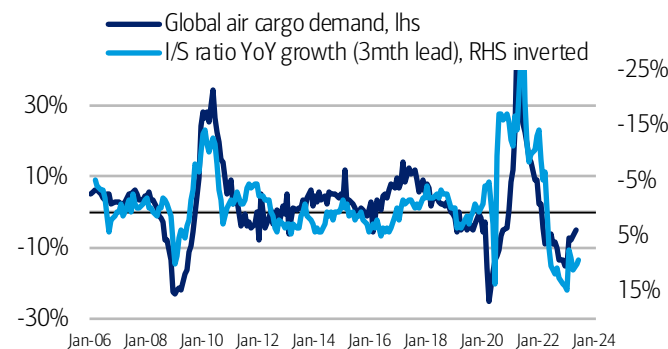


Source: BofA Global Research, Bloomberg

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**Exhibit 14: Air cargo demand v. US inventory-to-sales ratio (inverted)**

I/S ratios lead air cargo demand by 3 months with -0.56 correlations

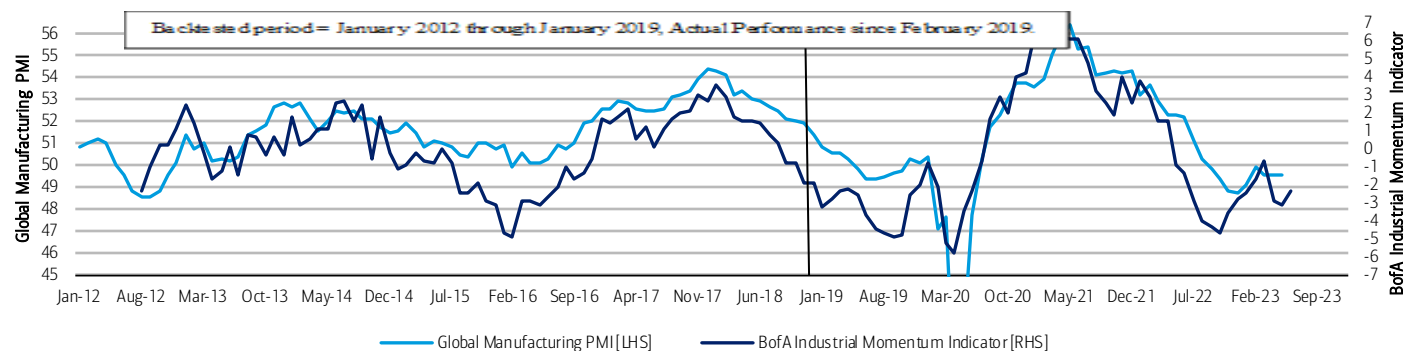


Source: BofA Global Research, Bloomberg

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**Industry demand data**[BofA Industrial Momentum Indicator ticks up from low levels](#)**Exhibit 15: BofA Industrial Momentum Indicator vs Global Manufacturing PMI**

Bottoms in the BofA Industrial Momentum Indicator lead bottoms in Global Manufacturing PMI



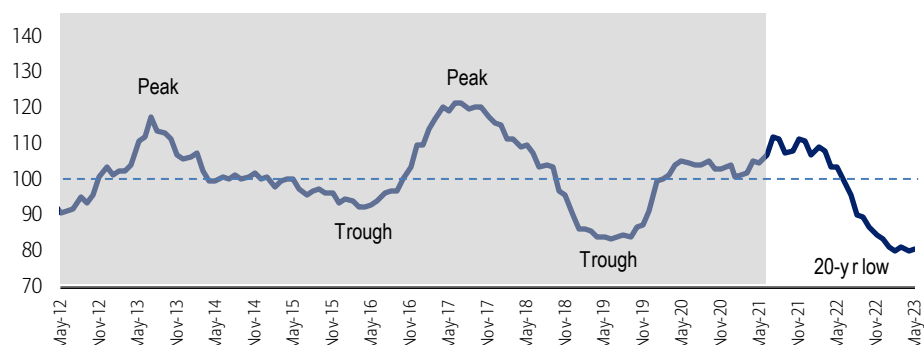
**Source:** BofA Global Research, Backtested period = January 2012 through January 2019, Actual Performance since February 2019. This performance is back-tested and does not represent the actual performance of any account or fund. Back-tested performance depicts the theoretical (not actual) performance of a particular strategy over the time period indicated. No representation is being made that any actual portfolio is likely to have achieved returns similar to those shown herein. Disclaimer: The indicator identified as BofA Industrial Momentum Indicator above is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purposes, without the prior written consent of BofA Global Research. This indicator was not created to act as a benchmark.

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## [Global Memory Tech: First take on China's Ga/Ge controls, and memory indicator with May/June results](#)

### Exhibit 16: BofA Memory Indicator – YoY change in price/exports/billings

May billings still show trough cycle (20-year low), but MoM recovery seen among billings, exports and ASP; 3Q23 contract price recovery expected after one year long deep cut



Source: DRAMeXchange, WSTS, MoTIE Korea, BofA Global Research

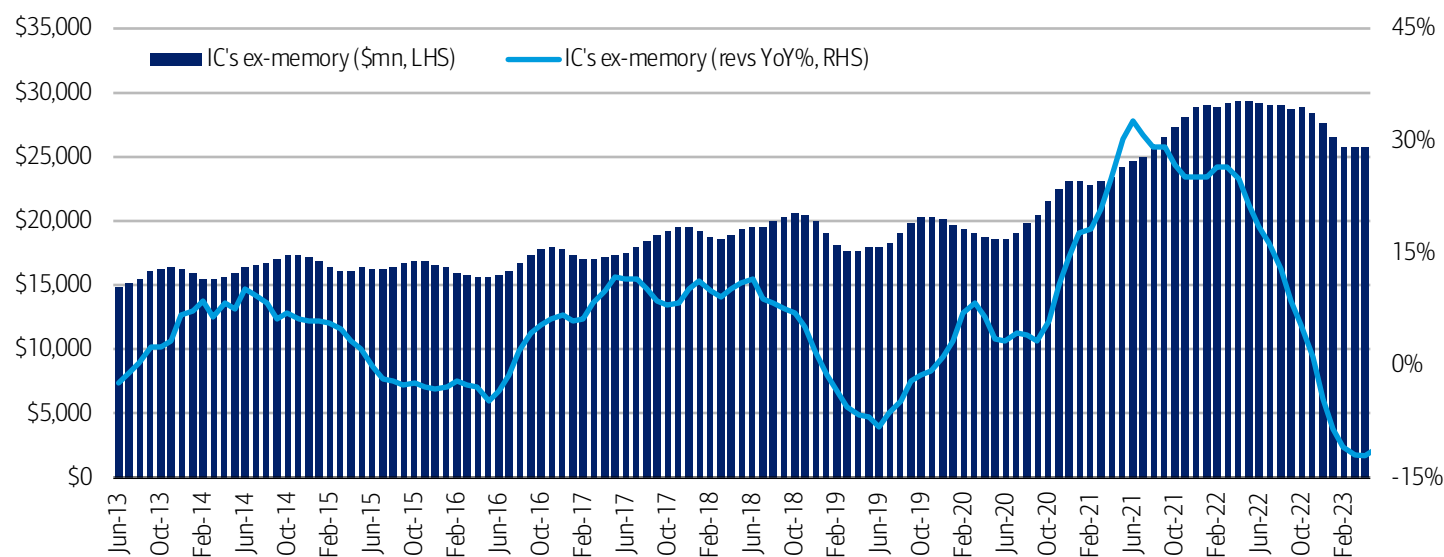
The shaded area represents backtested results from January 1991 to March 2021. The unshaded area represents actual performance since April 2021. This performance is backtested up to March-2021, and does not represent the actual performance of any account or fund. Back-tested performance depicts the theoretical (not actual) performance of a particular strategy over the time period indicated. No representation is being made that any actual portfolio is likely to have achieved returns similar to those shown herein. Disclaimer: The BofA Memory Indicator is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purpose, without the prior written consent of BofA Global Research. This indicator was not created to act as a benchmark.

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## [Global Semiconductors: May'23 SIA: Semis sales grow sequentially, down YoY](#)

### Exhibit 17: IC ex-memory unit trends over the last 10 years (3mma)

IC ex-memory sales were down -11.1% YoY (3mma)



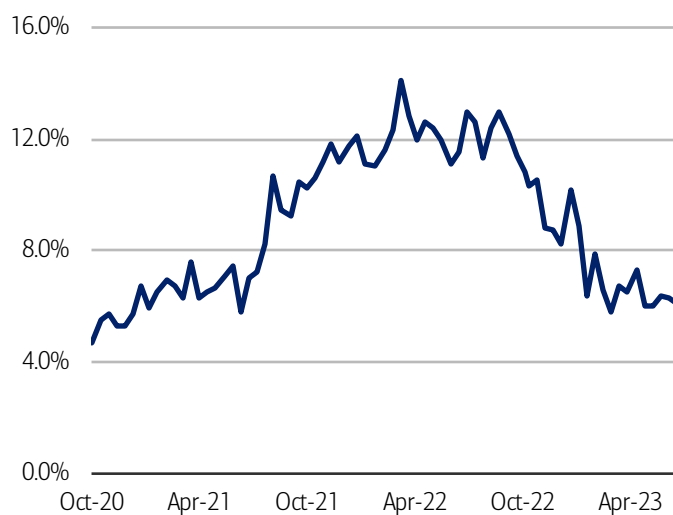
Source: SIA, BofA Global Research

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## Ocean vs air shipping

### Exhibit 18: Vessel capacity stuck in congestion (% of fleet), 2020-23

Congestion down to 6.1% of world supply now

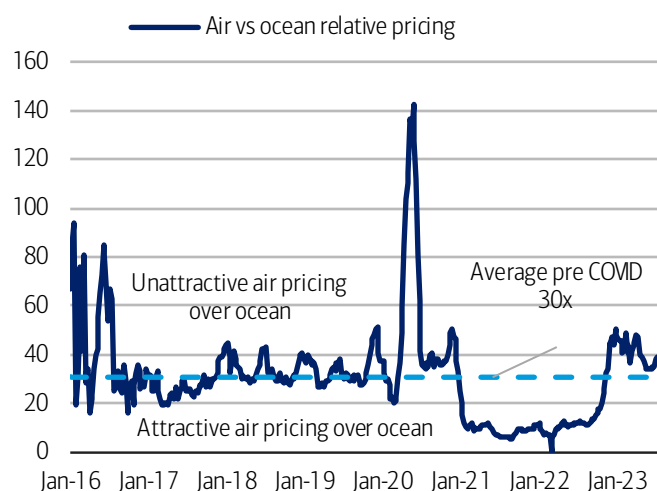


Source: Linerlytica

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### Exhibit 19: Airfreight relative pricings to ocean, China-Europe route

Airfreight relative pricing is back above pre-COVID level of 30x

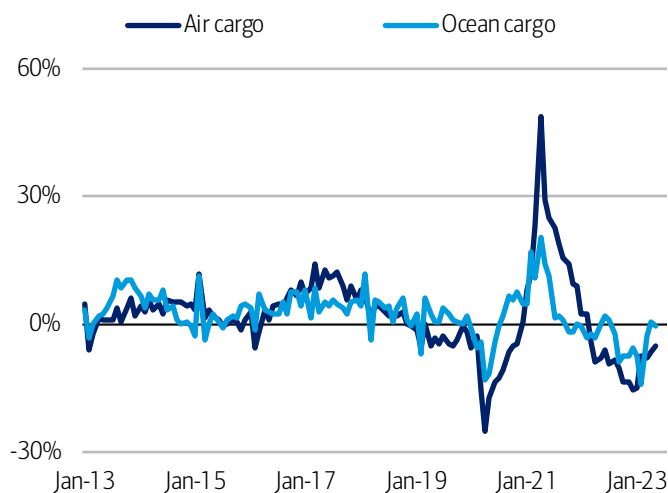


Source: BofA Global Research estimates, Bloomberg

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### Exhibit 20: Air and ocean cargo demand growth YoY %, 2013-23

Air cargo demand seeing sharper deceleration than ocean

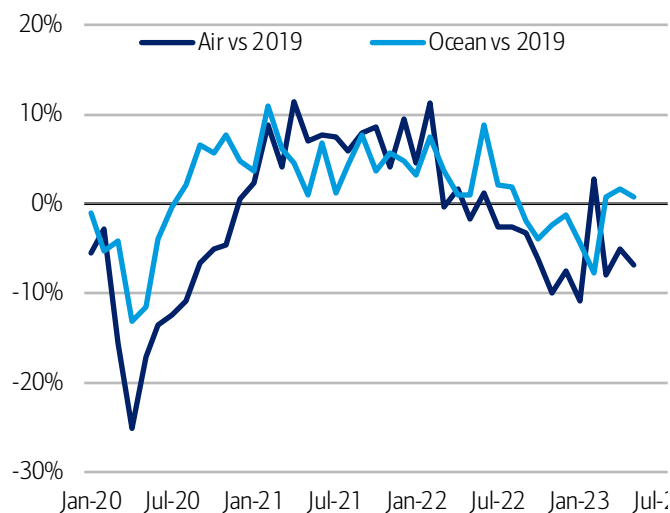


Source: Bloomberg, IATA, BofA Global Research estimates

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### Exhibit 21: Air and ocean demand compared to 2019 levels

Air cargo demand is -7% below 2019 vs ocean at +1%



Source: Bloomberg, IATA, BofA Global Research estimates

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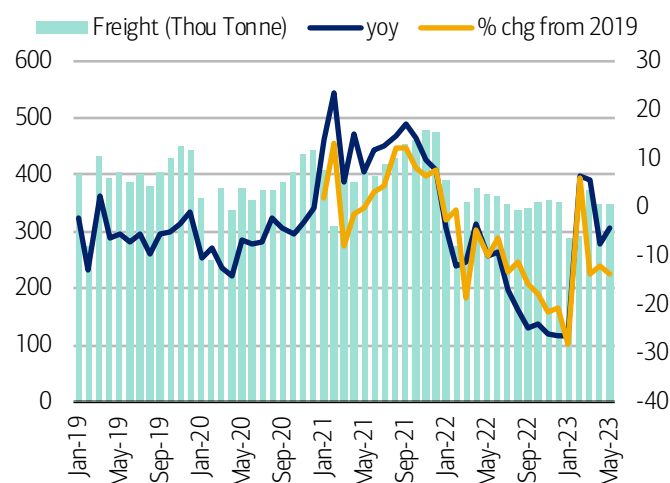
## Airport cargo traffic

### Asian airports

Key cargo hubs in the region (Hong Kong, Shanghai, Singapore, Beijing, Taipei, Seoul):

#### Exhibit 22: Hong Kong – airport cargo traffic ('000 tonne) and % chg

May cargo traffic at 13.6% below 2019 levels, -4% YoY

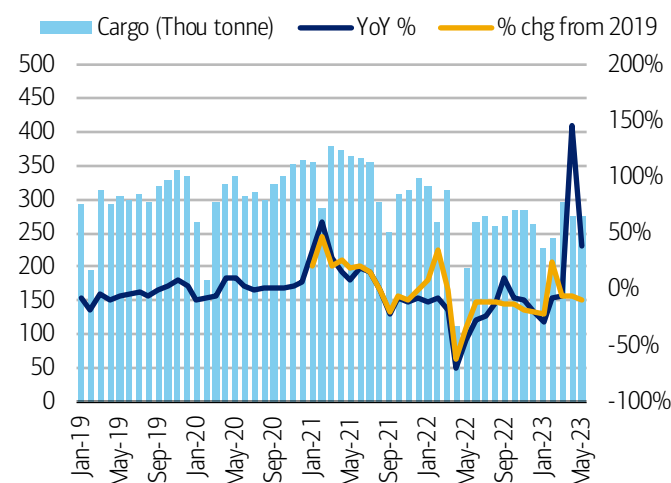


Source: BofA Global Research, company report

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#### Exhibit 23: Shanghai PVG – airport cargo traffic ('000 tonne) and % chg

May cargo traffic at -9.3% below 2019 levels, +40% YoY

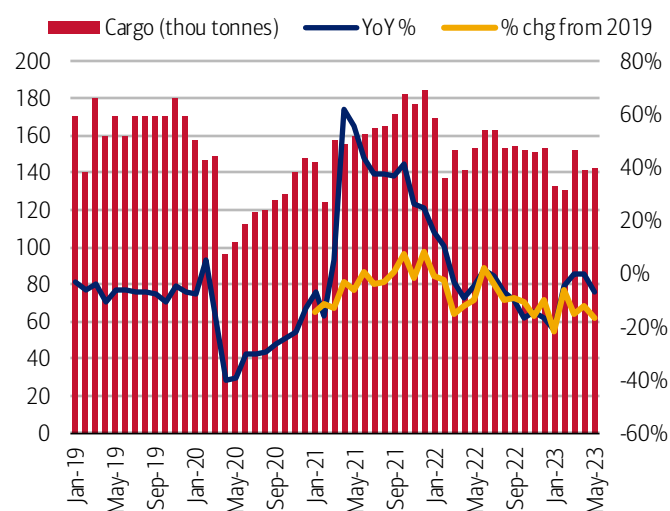


Source: BofA Global Research, company report

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#### Exhibit 24: Singapore – airport cargo traffic ('000 tonne) and % chg

May cargo traffic at -16.5% below 2019 levels, -7% YoY

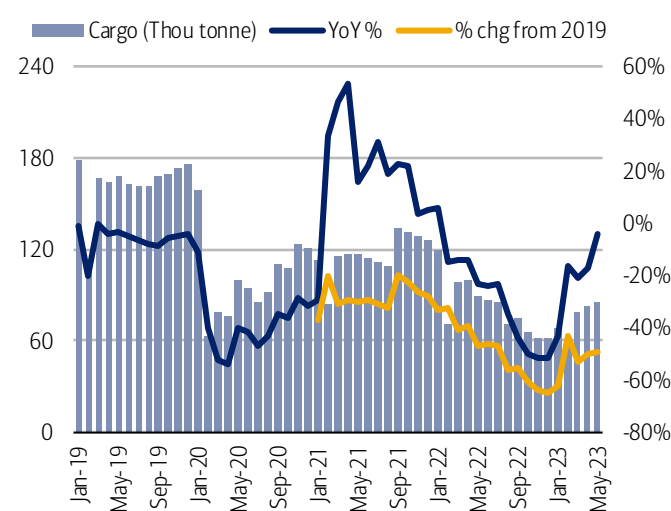


Source: BofA Global Research, company report

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#### Exhibit 25: Beijing PEK – airport cargo traffic ('000 tonne) and % chg

May cargo traffic at -48.9% below 2019 levels, -4% YoY

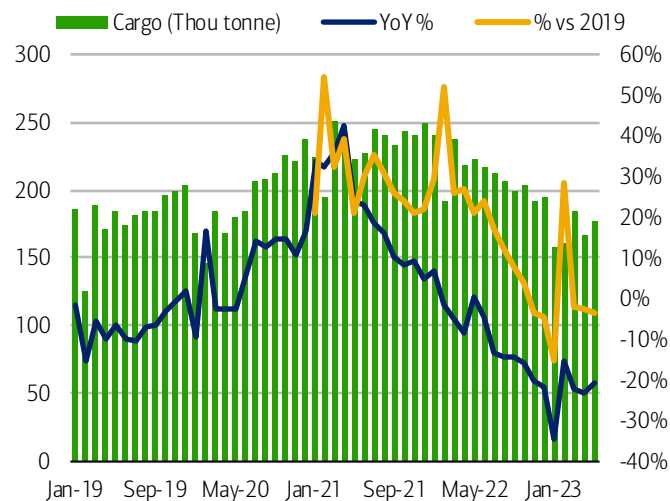


Source: BofA Global Research, company report

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**Exhibit 26: Taipei – airport cargo traffic ('000 tonne) and % chg**

May cargo traffic at 4% below 2019 levels, -21% YoY

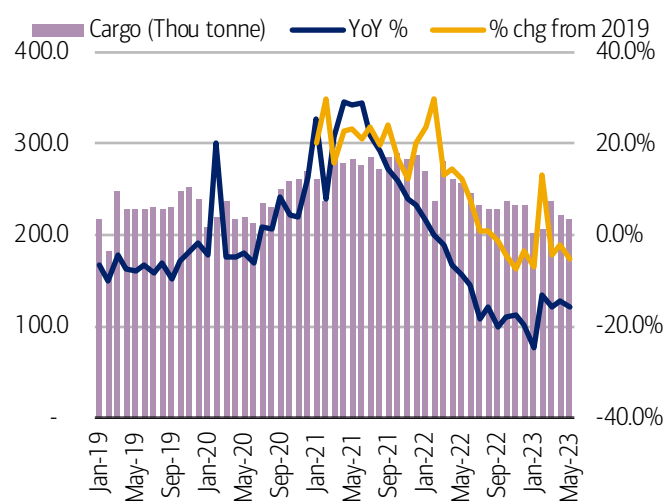


Source: BofA Global Research, company report

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**Exhibit 27: Seoul – airport cargo traffic ('000 tonne) and % chg**

May cargo traffic at 5% below 2019 levels, -16% YoY



Source: BofA Global Research, company report

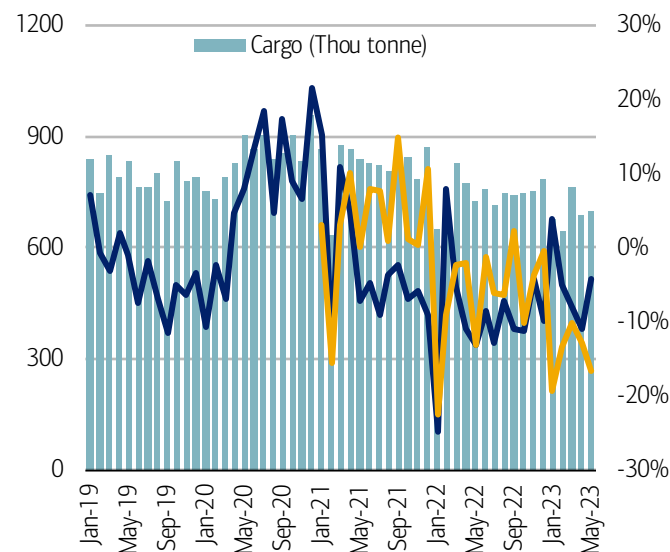
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**US airports**

Key cargo hubs for FedEx (Memphis) and UPS (Louisville):

**Exhibit 28: Memphis – airport cargo traffic ('000 tonne) and % chg**

May cargo traffic at -17% below 2019 levels, -4% YoY

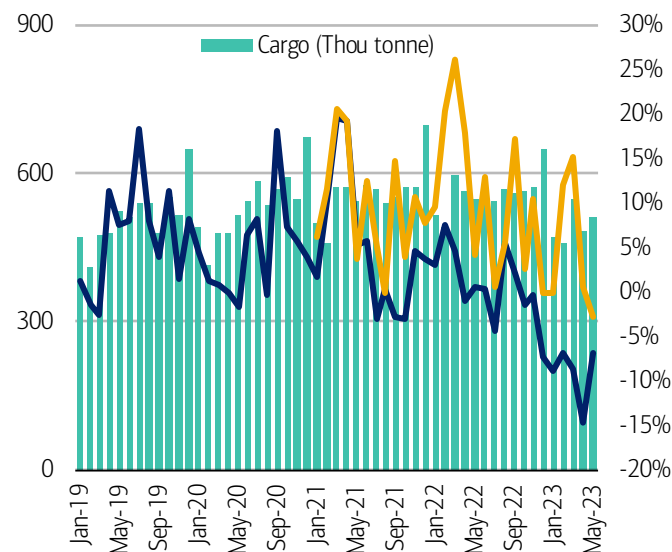


Source: BofA Global Research, company report

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**Exhibit 29: Louisville – airport cargo traffic ('000 tonne) and % chg**

May cargo traffic at -3% below 2019 levels, -7% YoY



Source: BofA Global Research, company report

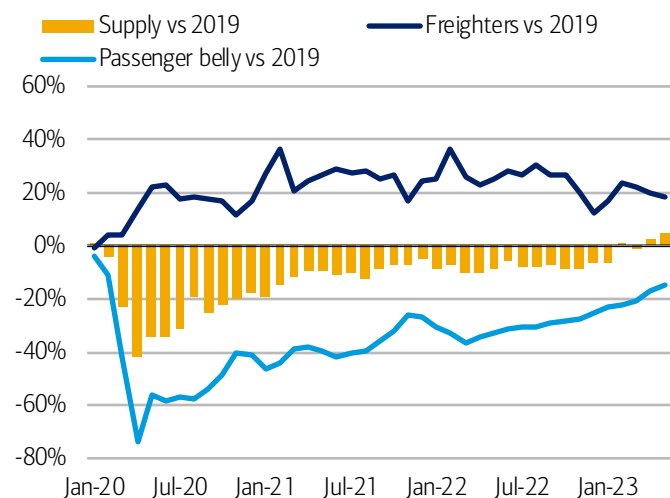
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# Airfreight supply

## Exhibit 30: Global airfreight capacity vs 2019, freighters & belly

Airfreight capacity is largely in line with 2019 in May

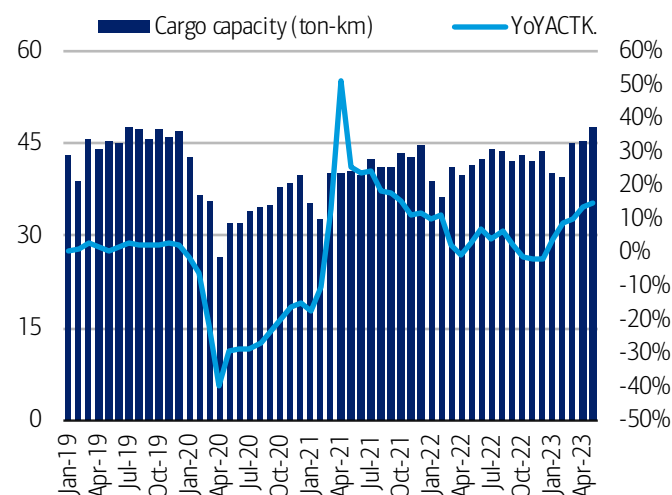


Source: BofA Global Research estimates, IATA

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## Exhibit 31: Global airfreight capacity (mn ton-km)

Global supply was up +14.5% YoY in May



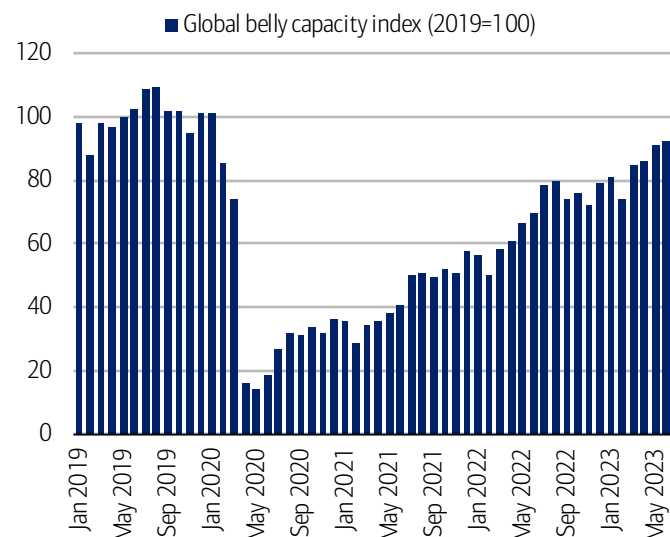
Source: IATA, BofA Global Research estimates

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## Belly capacity

### Exhibit 32: Payload adjusted global bellyhold capacity index, 2019=100

Belly cargo capacity rising to ~90% of 2019 levels

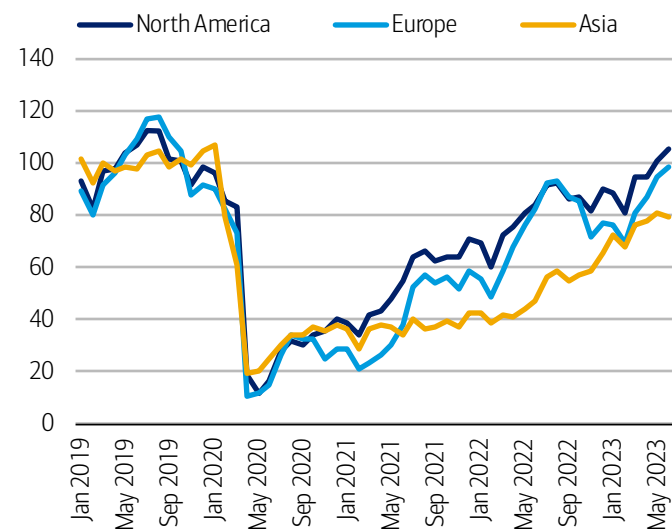


Source: BofA Global Research estimates, Dii, Boeing, Airbus

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### Exhibit 33: Payload adjusted belly capacity by region, 2019=100

Belly capacity return led by North America



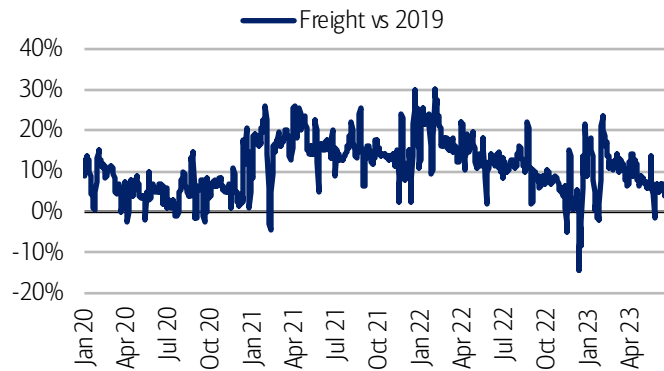
Source: BofA Global Research estimates, Dii, Boeing, Airbus

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## Freighter

### Exhibit 34: Global dedicated freighter flights tracked 7 day avg. YoY %

This excludes commercial aircraft used as freighter. It has become progressively weaker through 2022

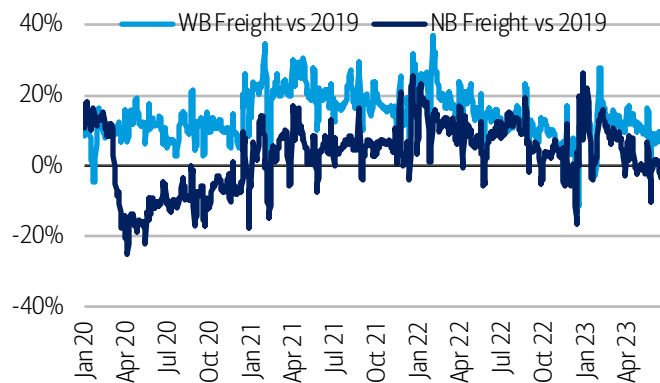


Source: BofA Global Research, Flightradar24

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### Exhibit 36: Narrowbody vs Widebody dedicated freighter flights tracked 7 day avg. YoY %

Narrowbody and Widebody freight have converged through 3Q22

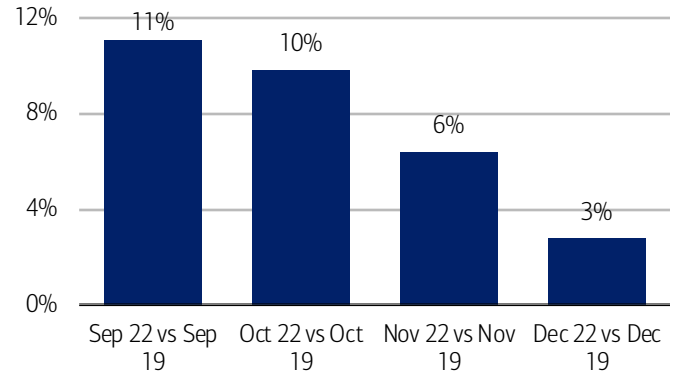


Source: BofA Global Research, Flightradar24

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### Exhibit 35: Freight landings Sep – Dec 2022 vs 2019

Monthly average number of landings vs 2019 levels have cooled off since September 2022

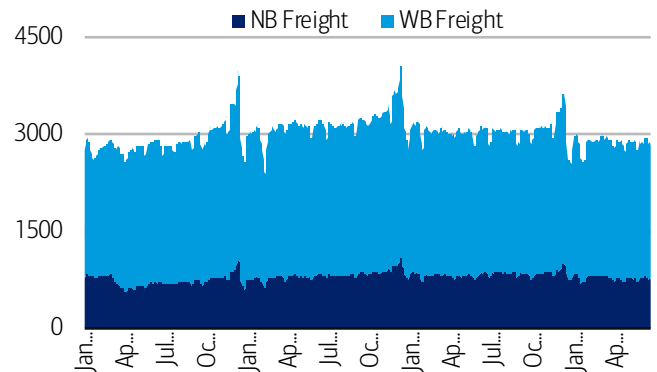


Source: BofA Global Research, Flightradar24

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### Exhibit 37: Narrowbody vs Widebody dedicated freighter flights daily

Freight cycles typically peak around the holiday period in December



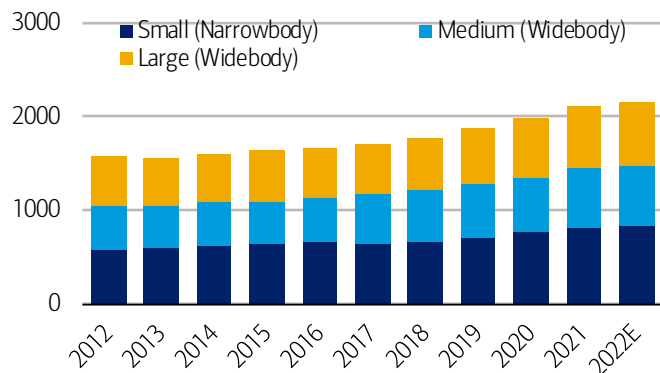
Source: BofA Global Research, Flightradar24

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## BofA Commercial Aerospace: Mixed performance across families in 2023

### Exhibit 38: Number of global freighter fleet from major OEMs

Fleet growth is at 3.2% CAGR since 2012

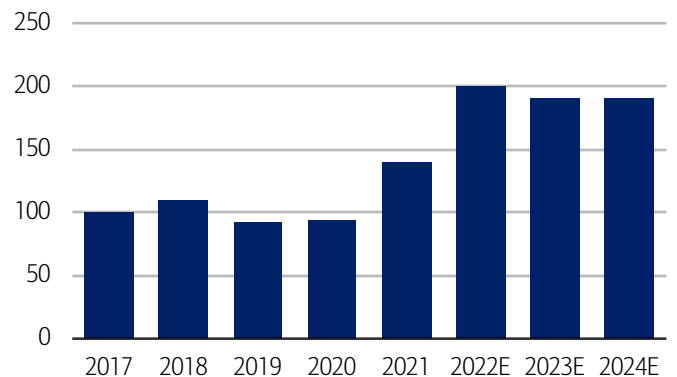


Source: Trade and Transport Group, BofA Global Research. Note: excluding smaller feeder

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### Exhibit 39: Number of freighter jet conversions from passenger

Annual conversions planned has doubled in 2022-24E vs pre-COVID

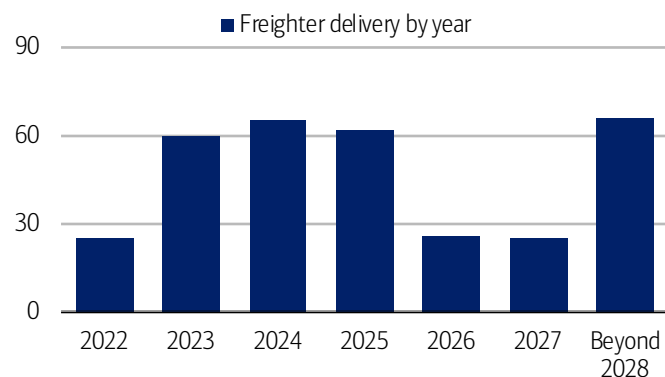


Source: Cirium, BofA Global Research estimates

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**Exhibit 40: Number of freighter deliveries by year**

Deliveries will reach 60-65 freighter per year in 2023-25

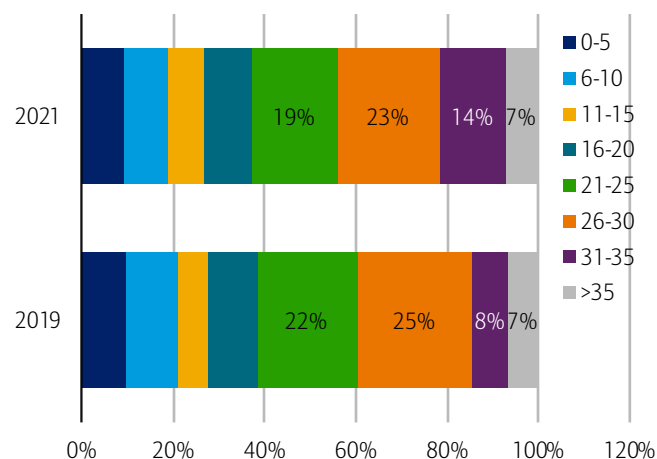


Source: Ciriium, BofA Global Research estimates

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**Exhibit 42: Age of freighters by year, 2019 and 2021**

The share of fleet with age over 30 years is higher at 21% in 2021



Source: Xeneta, BofA Global Research estimates

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**Exhibit 41: Annual freighter retirement as % of in service fleet**

About 3.5% retirement rate a year through the cycle

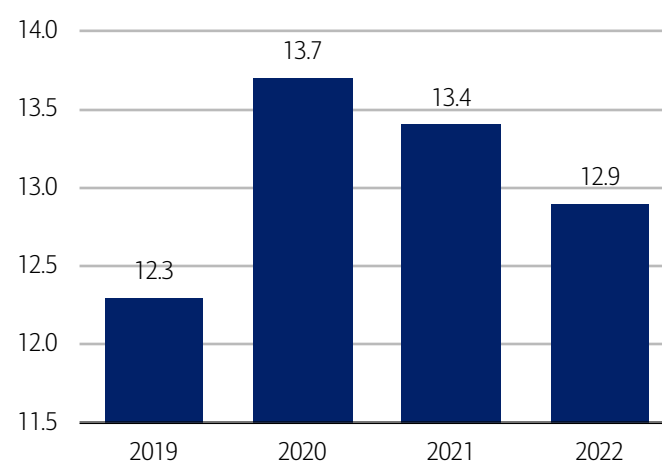


Source: Ciriium, BofA Global Research estimates

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**Exhibit 43: Large freighter hours flown per day**

Utilization hours not far from 2019 levels



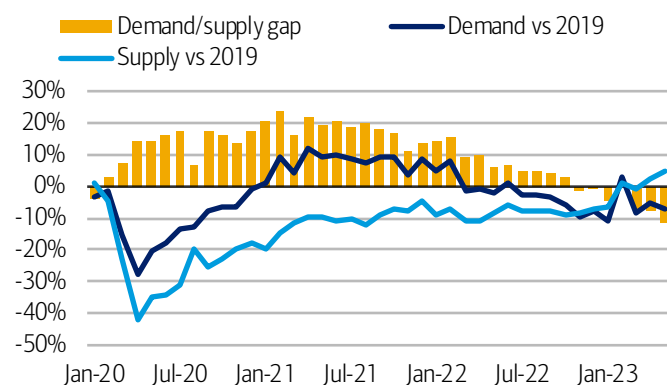
Source: Xeneta, BofA Global Research estimates

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## Demand/supply balance

**Exhibit 44: Global airfreight demand and supply vs 2019 levels and demand-supply gap**

Balance has flipped to negative since November 2022

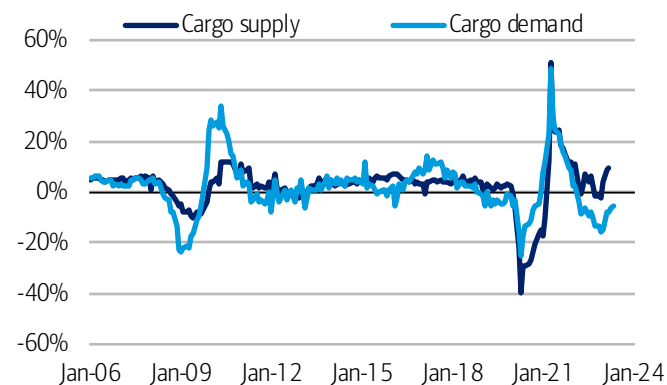


Source: IATA, BofA Global Research estimates

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**Exhibit 45: Global airfreight demand and supply growth YoY%**

YoY cargo demand and supply worsening further



Source: IATA, BofA Global Research estimates

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## BofA demand/supply model



We expect air cargo to remain in oversupply in 2023-24:

#### Exhibit 46: Global air cargo annual supply & demand balance

We see demand-supply turning negative in 2022-24E

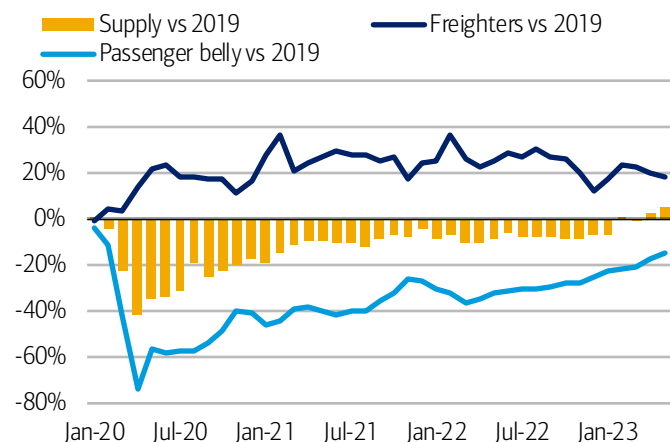
| YoY %                        | 2010         | 2011         | 2012         | 2013         | 2014        | 2015         | 2016         | 2017        | 2018         | 2019         | 2020         | 2021        | 2022          | 2023          | 2024         |
|------------------------------|--------------|--------------|--------------|--------------|-------------|--------------|--------------|-------------|--------------|--------------|--------------|-------------|---------------|---------------|--------------|
| Demand (FTK)                 | 20.8%        | -0.7%        | -1.0%        | 1.9%         | 4.5%        | 3.4%         | 3.8%         | 10.1%       | 3.7%         | -3.3%        | -8.9%        | 17.5%       | -8.0%         | -3.8%         | 3.2%         |
| Capacity (AFTK)              | 8.9%         | 4.1%         | 1.1%         | 3.1%         | 3.7%        | 6.1%         | 5.3%         | 3.8%        | 5.2%         | 2.1%         | -20.9%       | 12.8%       | 2.9%          | 7.3%          | 7.8%         |
| <b>Demand/supply balance</b> | <b>11.9%</b> | <b>-4.8%</b> | <b>-2.0%</b> | <b>-1.2%</b> | <b>0.8%</b> | <b>-2.7%</b> | <b>-1.5%</b> | <b>6.3%</b> | <b>-1.5%</b> | <b>-5.4%</b> | <b>12.0%</b> | <b>4.7%</b> | <b>-10.9%</b> | <b>-11.1%</b> | <b>-4.6%</b> |

Source: BofA Global Research estimates, IATA

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#### Exhibit 47: Global airfreight capacity vs 2019, freighters & belly

Airfreight capacity is close to 2019 levels now

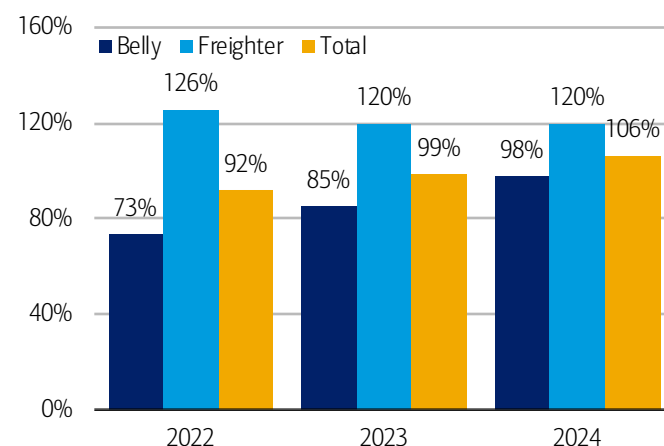


Source: BofA Global Research estimates, IATA

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#### Exhibit 48: Air cargo capacity by segment, as % of 2019 levels

We see global capacity to reach 93%/99%/106% of 2019 levels in 2022/23/24

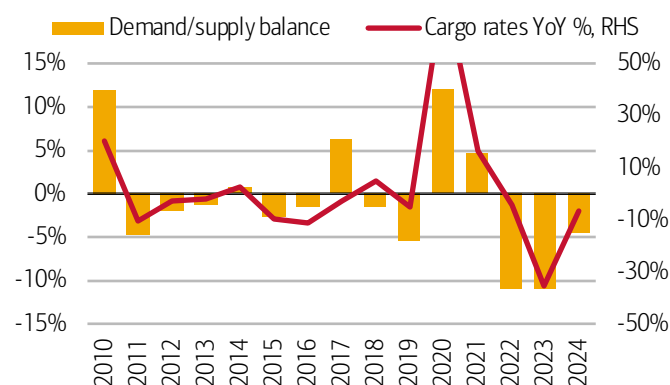


Source: BofA Global Research estimates

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#### Exhibit 49: Global air cargo balance and cargo yield YoY %

Cargo balance drives cargo yield with high correlation at 0.77

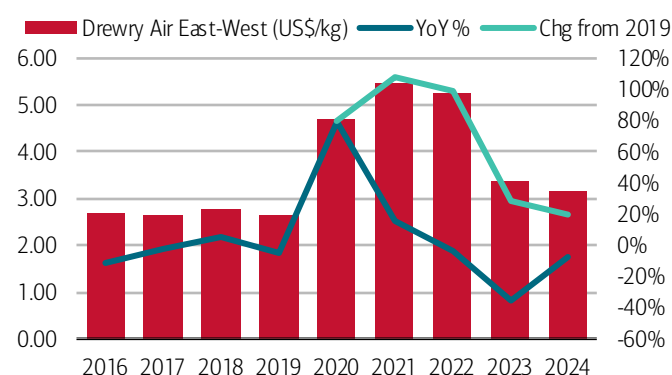


Source: IATA, BofA Global Research estimates

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#### Exhibit 50: Global air cargo yield and % change

We expect cargo yield will continue to normalize in 2023-24

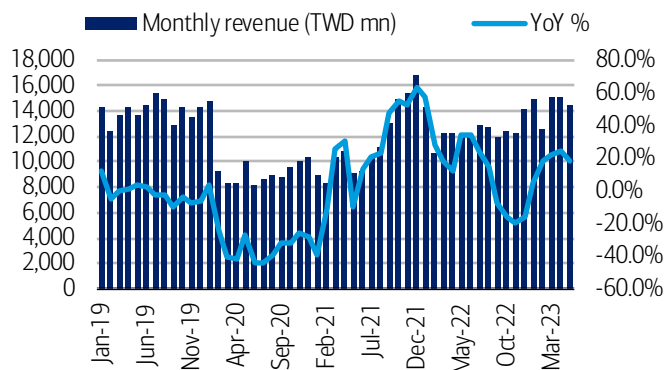


Source: Drewry, IATA, BofA Global Research estimates

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# Airlines operating data

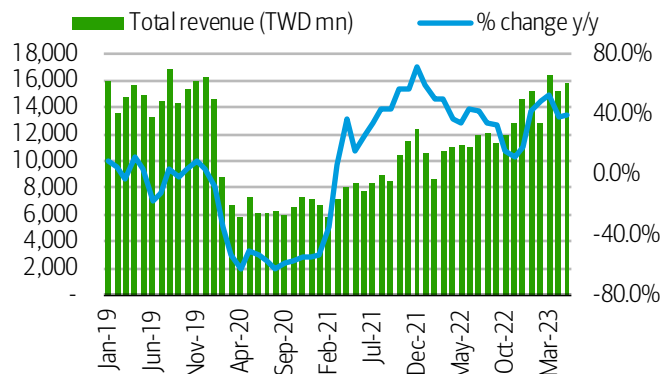
**Exhibit 51: China Airlines – monthly revenue (TWD mn) and YoY %**  
May revenue +18% YoY and -4.7% MoM



Source: BofA Global Research, company report

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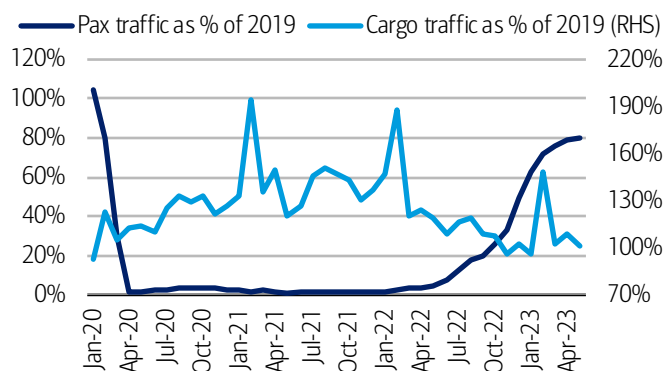
**Exhibit 52: EVA Air – monthly revenue (TWD mn) and YoY %**  
May revenue +40% YoY and +3.6 MoM



Source: BofA Global Research, company report

BofA GLOBAL RESEARCH

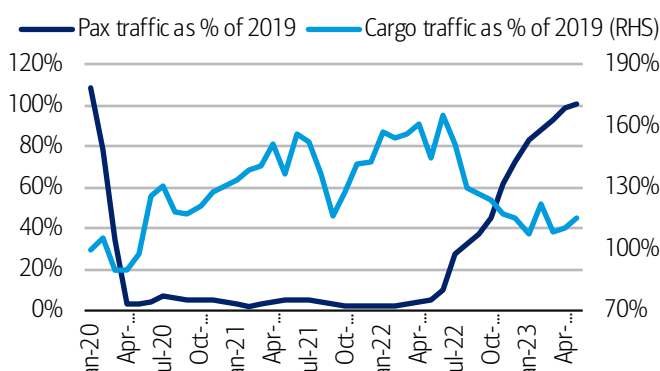
**Exhibit 53: CAL passenger (RPK) and cargo (FTK) traffic as % of 2019**  
May passenger traffic at 80% of 2019 levels & cargo traffic at 101%



Source: BofA Global Research, company report

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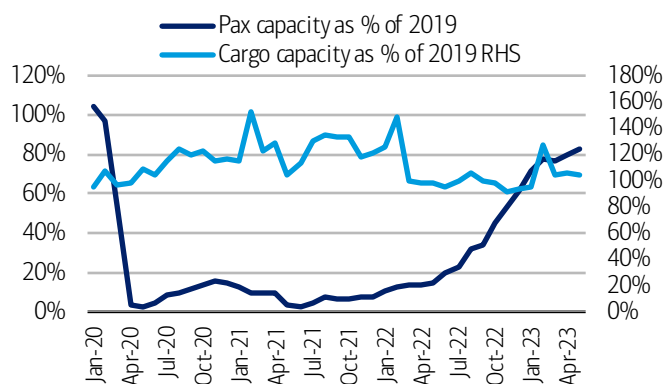
**Exhibit 54: EVA passenger (RPK) and cargo (FTK) traffic as % of 2019**  
May passenger traffic at 100% of 2019 levels & cargo traffic at 115%



Source: BofA Global Research, company report

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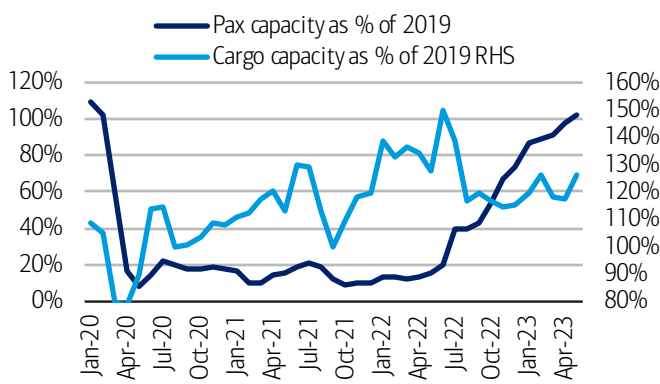
**Exhibit 55: CAL passenger and cargo capacity as % of 2019**  
May passenger capacity at 83% of 2019 levels and cargo at 104%



Source: BofA Global Research, company report

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**Exhibit 56: EVA passenger and cargo capacity as % of 2019**  
May passenger capacity at 103% of 2019 levels and cargo at 126%

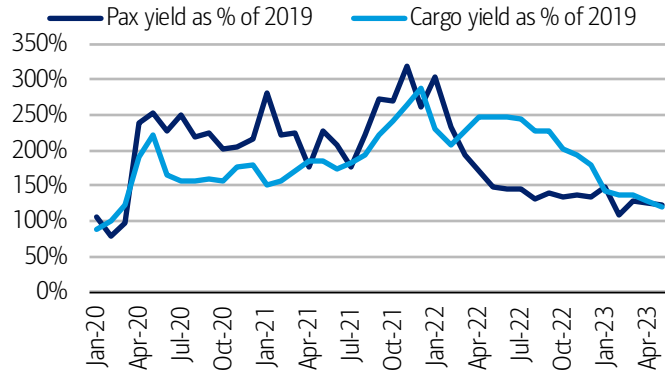


Source: BofA Global Research, company report

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**Exhibit 57: CAL passenger and cargo yields as % of 2019 levels**

May passenger yield at 124% of 2019 levels and cargo yield at 122%

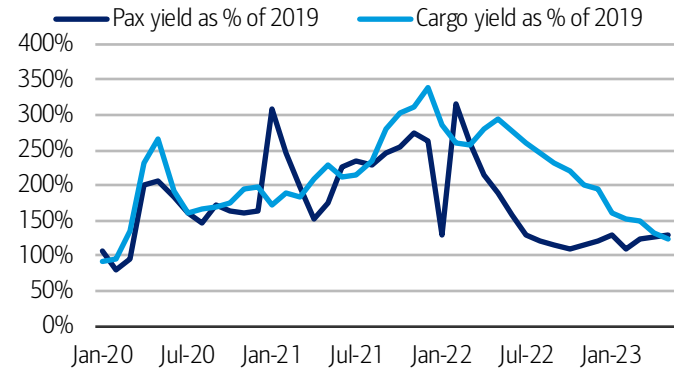


Source: BofA Global Research, company report

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**Exhibit 58: EVA passenger and cargo yields as % of 2019 levels**

May passenger yield at 129% of 2019 levels and cargo yield at 125%

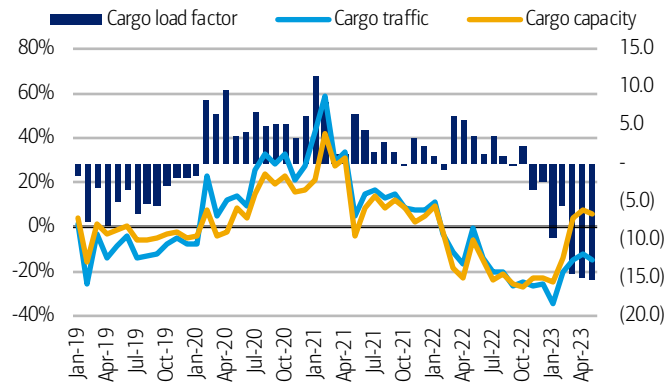


Source: BofA Global Research, company report

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**Exhibit 59: CAL cargo traffic and capacity growth, loads YoY chg (RHS)**

May cargo load factor at 68.5%, -15.3ppts YoY

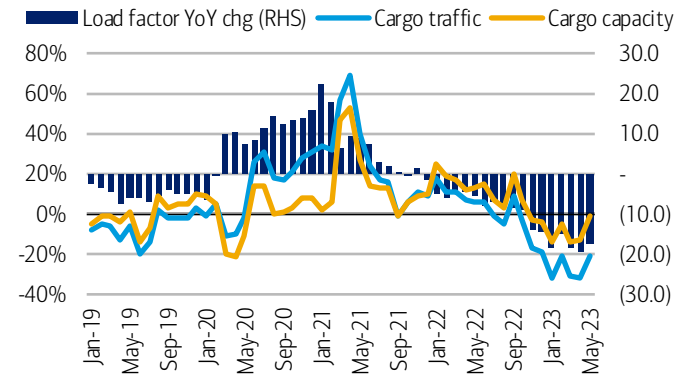


Source: BofA Global Research, company report

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**Exhibit 60: EVA cargo traffic and capacity growth, loads YoY chg (RHS)**

May cargo load factor at 72.1%, -17.6ppts YoY

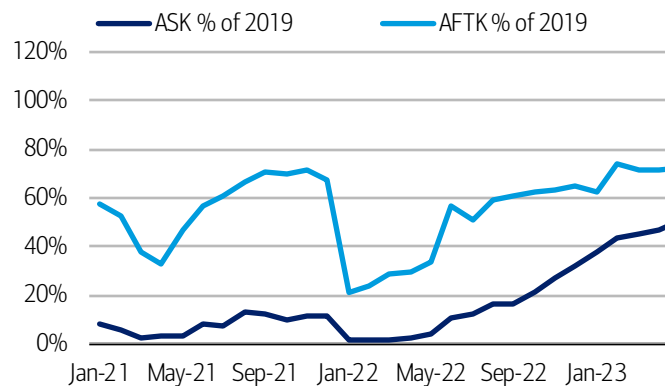


Source: BofA Global Research, company report

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**Exhibit 61: Cathay Pacific passenger and cargo capacity as % of 2019**

May passenger (ASK) capacity at 51% of 2019 levels and cargo (AFTK) capacity at 72%

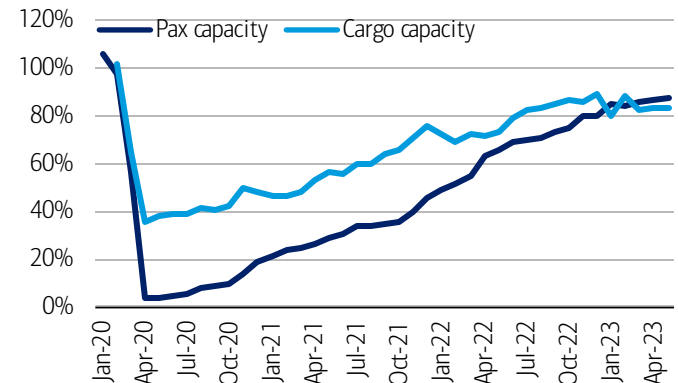


Source: BofA Global Research, company report

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**Exhibit 62: Singapore Airlines passenger & cargo capacity as % of 2019**

May passenger capacity at 88% of 2019 levels and cargo capacity at 83%

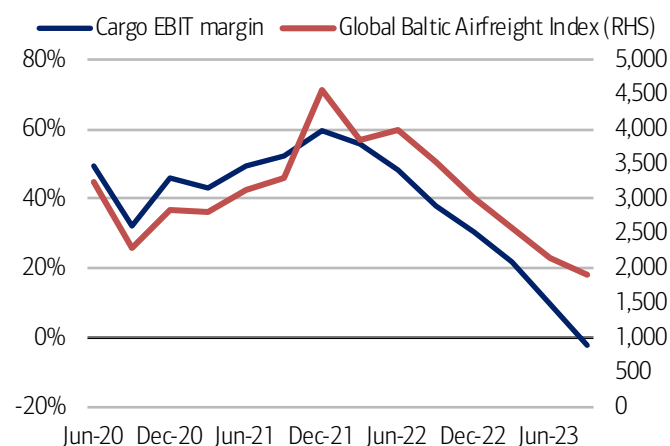


Source: BofA Global Research, company report

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**Exhibit 63: Singapore Airlines quarterly cargo EBIT margin and Baltic Airfreight Index (RHS)**

Dec-Q SIA cargo margin at 31% and likely going down to 10-15% in Mar-Q

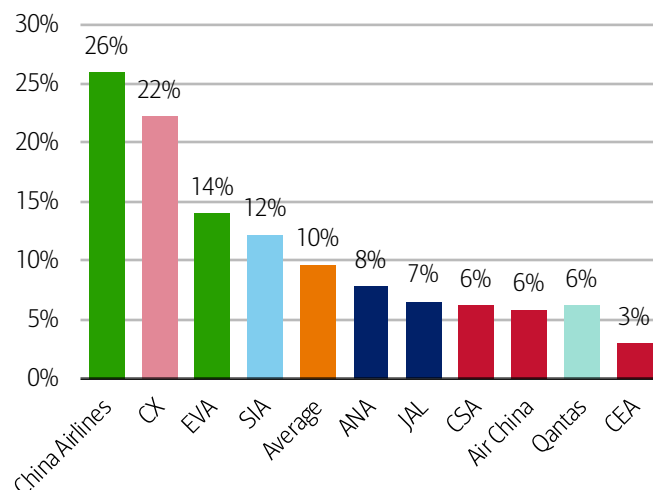


Source: BofA Global Research estimates, company report

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**Exhibit 64: Asian airlines: Cargo as % of revenue in FY2019**

China Airlines, Cathay Pacific and EVA are most exposed to cargo earnings

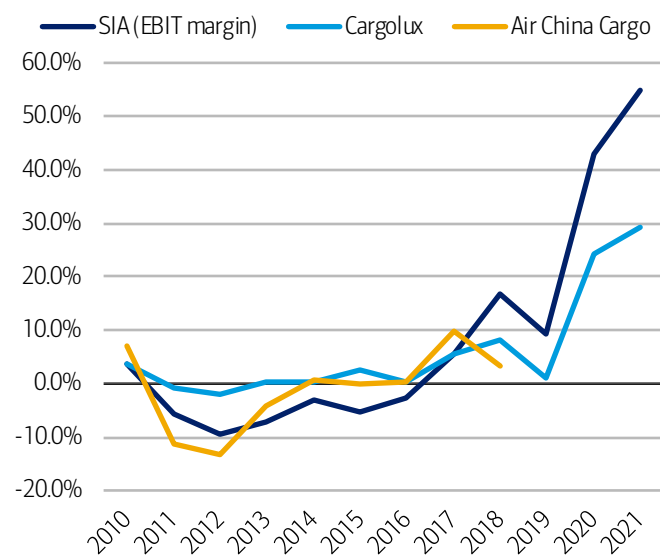


Source: BofA Global Research estimates, company report

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**Exhibit 65: Cargo margins for selected airlines with disclosures**

Cargo historically has been largely a breakeven business

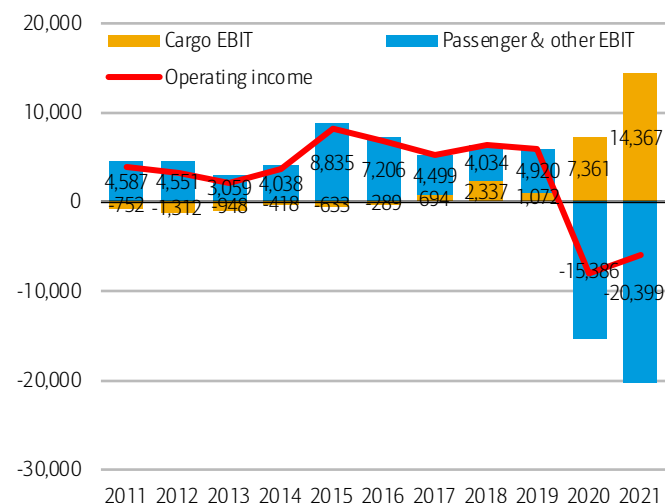


Source: BofA Global Research estimates, company report

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**Exhibit 66: Asian airlines estimated EBIT breakdown by cargo and other segments, USD mn**

We estimate cargo has contributed US\$14bn in operating profit in 2021, offsetting >70% of the losses in passenger and other businesses



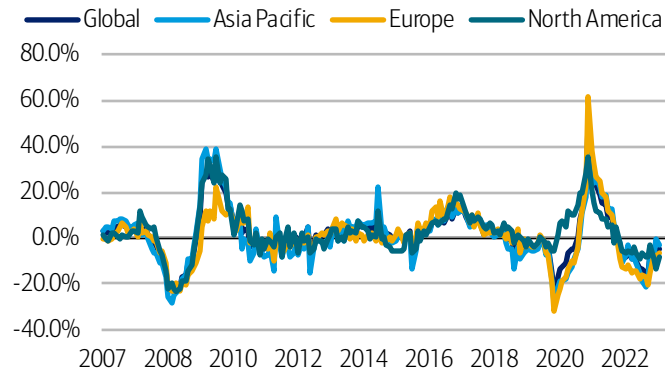
Source: BofA Global Research estimates, company report. Note airlines include Air China, CEA, CSA, JAL, ANA, EVA, China Airlines, CX and SIA

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# Global airfreight market overview

## Exhibit 67: Monthly air cargo demand growth YoY %

Cargo demand drives the cyclical nature of the industry, CAGR at ~3% pre-COVID

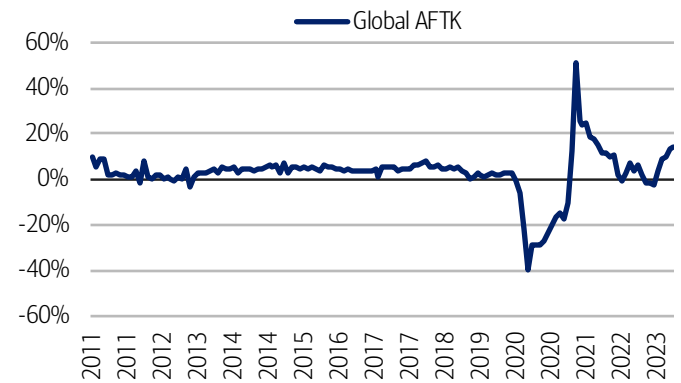


Source: IATA, BofA Global Research

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## Exhibit 68: Monthly air cargo supply (AFTK) growth YoY %

Cargo supply has been relatively steady at 3-4% p.a. pre-COVID

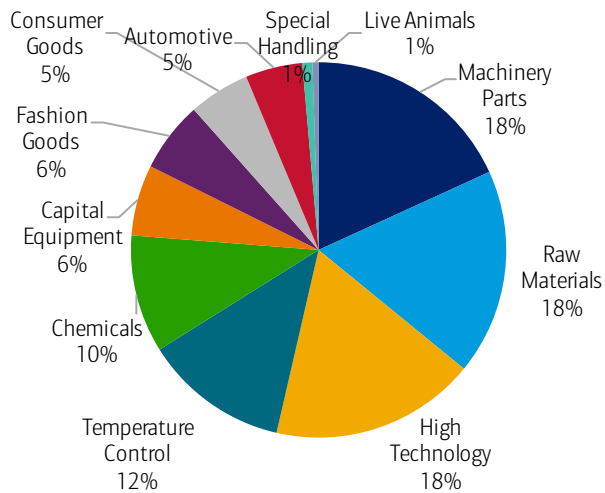


Source: IATA, BofA Global Research

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## Exhibit 69: Global air cargo demand (metric tonne) by industry, 2022

Major industries are machinery parts, raw materials and high tech

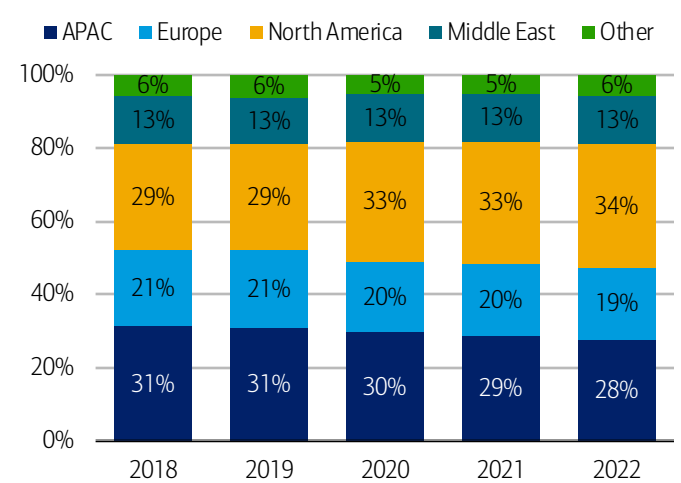


Source: BofA Global Research estimates

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## Exhibit 70: Global air cargo demand by region

The share of North America has risen from 29% to 34% now



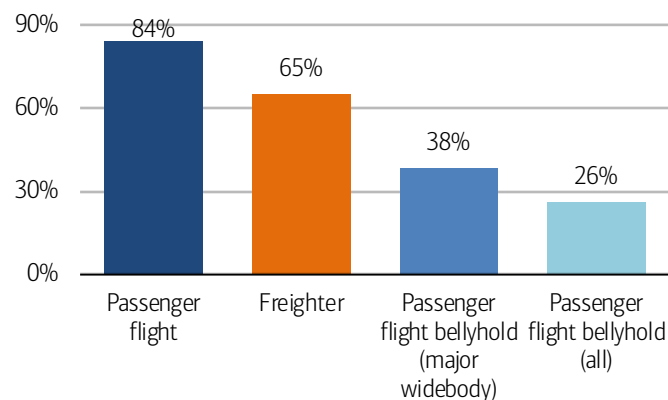
Source: IATA, BofA Global Research

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**Exhibit 71: Seat/cargo load factors for different type of services, 2019**

Freighter has higher cargo loads than bellyhold capacity

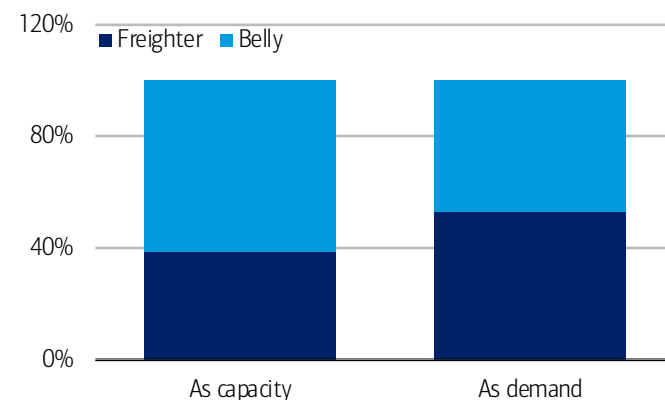


Source: IATA, Boeing

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**Exhibit 72: Capacity and demand breakdown by cargo fleet type, 2019**

Freighter represented 39% of capacity but 53% of demand with higher loads

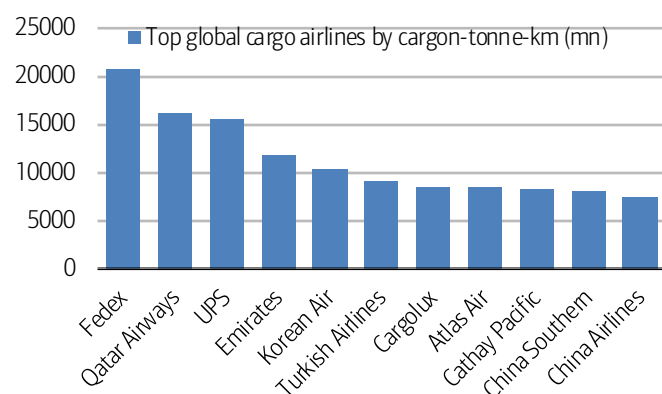


Source: IATA

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**Exhibit 73: Top global cargo airlines by cargo-tonne-km (mn), 2021**

Fedex, Qatar and UPS the global top 3

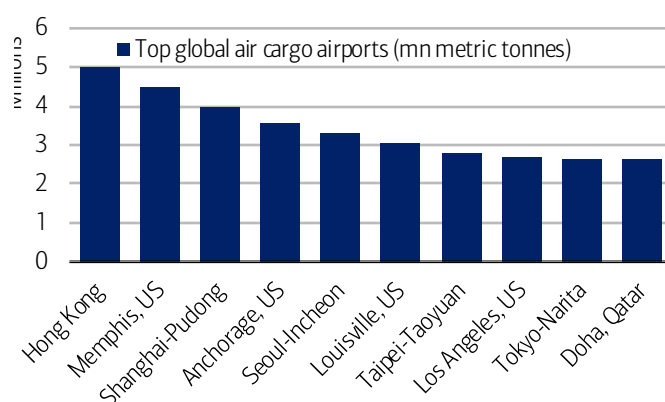


Source: IATA

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**Exhibit 74: Top global air cargo airports (mn metric tonnes), 2021**

Hong Kong, Memphis and Shanghai-Pudong the global top 3

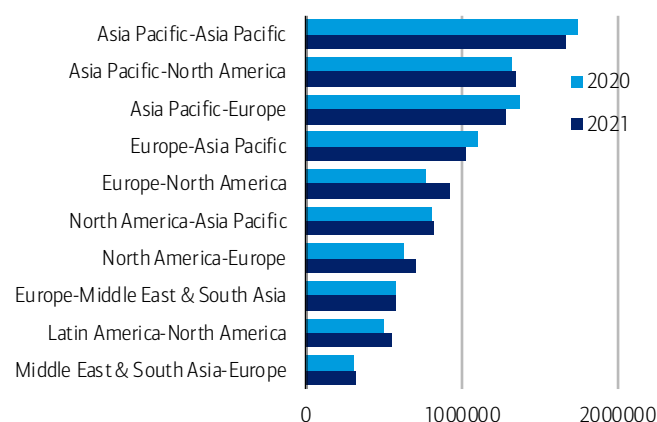


Source: ACI

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**Exhibit 75: Global air cargo trade (metric ton) by trade lane**

Trades among Asia, North America and Europe the top lanes

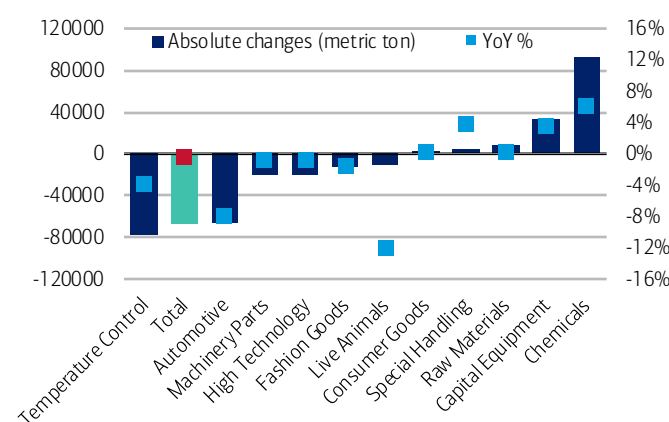


Source: IATA

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**Exhibit 76: Air cargo demand (metric tonne) YoY changes by industry**

Global demand growth is flattish YoY year to date



Source: BofA Global Research estimates, IATA

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