

AIRFREIGHT STATE OF THE INDUSTRY

AUGUST 2021

DHL Global Forwarding – Excellence. Simply delivered.



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Summary

Demand

- Volumes continue to remain very strong; **+31%** YoY growth in Jun 21
- Demand surge still spread across various sectors from hi-tech, automotive to pharma
- E-commerce contributed to robust air demand
- Port congestions, astronomical ocean rates along with inventory re-stocking continues to divert previously ocean reliant cargo to air
- Healthy PMI index, historically low I/S ratio & approaching peak season indicate strong air cargo demand in coming months
- Upcoming hi-tech product launches to exert pressure on demand

Capacity

- Incremental improvement in overall capacity; however remained severely affected and down by **-23% in Jul 21 vs Jul 19**
- **PAX capacity** down by nearly **-35%** in Jul 21 vs Jul 19

Carriers

- CK, CZ, CA among other airlines recently cancelled flights due to increase in Covid cases in China; capacity to get affected
- Some airlines expected to re-deploy *preighters* back to PAX service to holiday destinations during summer holidays
- Lufthansa Cargo will offer freight capacities on Eurowings Discover- will add more long haul capacity
- Silk Way Airlines signs interline agreement with Astral Aviation to offer capacity to Africa
- WFS partnered with Japan Airlines to offer cargo ops in EU; focus on Covid vax handling

Jet Fuel

- Prices remained at \$79/b by Jul 21 end but touched \$82/b
- CN situation may put downward pressure on oil prices

Rates

- Freight rates **remained high in Jun 21**. Now **+75% higher** than 2019 +13% higher than 2020 levels
- Rates expected to remain high due to demand vs capacity imbalance & upcoming peak season
- Total landed cost with AFR now quite favourable vs OFR

Regulation/News

- Increasing Covid cases, flood damages in China - flights cancellations announced, upgraded sanitizing process & operation restrictions likely to cause restricted capacity and increased rates
- New ICAO¹⁾ rules for 100% cargo screening in US creating backlogs at airports; transit times lengthening
- Yantian port congestion likely to continue; months before supply chains recover- likely to cause more freight conversion to air
- Delay in FRA, AMS, ORD due to heavy volumes; transit times likely to get affected for couple of weeks
- DHL invested in fully electric freighters(1.2 tonnes capacity) towards a sustainable aviation future
- DHL offers via HKG solution ²⁾ on own flights + trucking to mitigate CN impact

Source: IATA, Seabury, DGF Desk Research; ¹⁾ICAO-International Civil Aviation Org. ²⁾see slide 12, 13

Market Developments

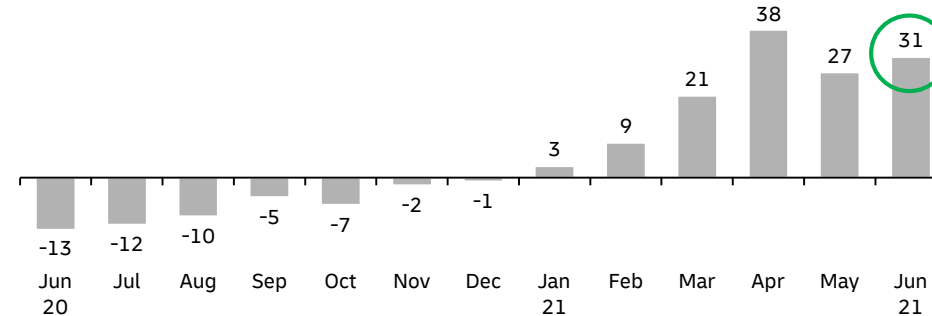
Economic Outlook

GDP Growth by Region

	2021F	2022F	2023F	2024F	2025F	CAGR (2021-2025)
EURO	4.46%	4.19%	2.18%	1.75%	1.66%	2.44%
MEA	4.01%	4.39%	4.23%	3.76%	3.38%	3.94%
AMNO	6.69%	4.67%	1.88%	2.21%	2.19%	2.73%
AMLA	4.44%	3.51%	2.66%	2.67%	2.78%	2.90%
ASPA	6.14%	4.83%	4.35%	4.32%	4.29%	4.45%
World	6.00%	4.53%	3.04%	3.00%	2.96%	3.38%

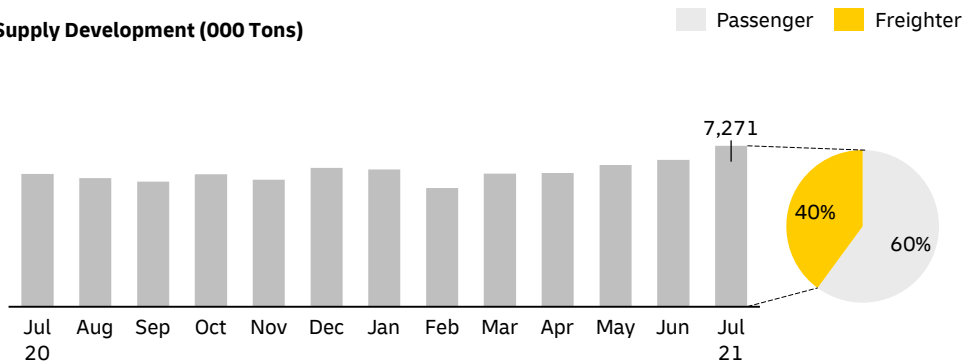
Demand

Demand Development in Tons (% change YoY)



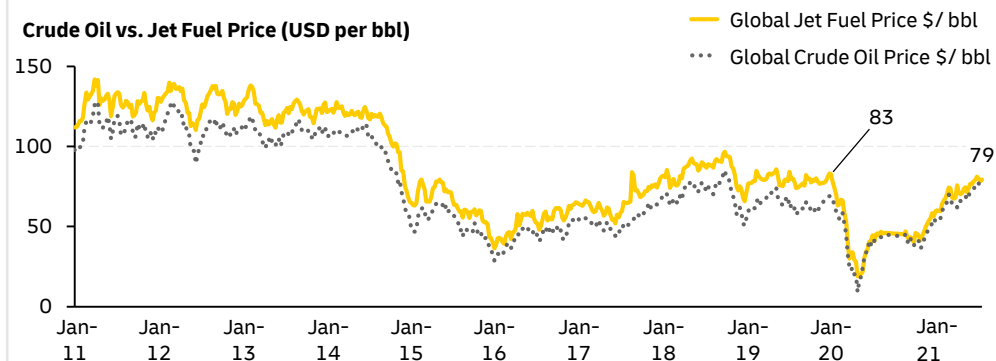
Supply

Supply Development (000 Tons)



Jet Fuel

Crude Oil vs. Jet Fuel Price (USD per bbl)



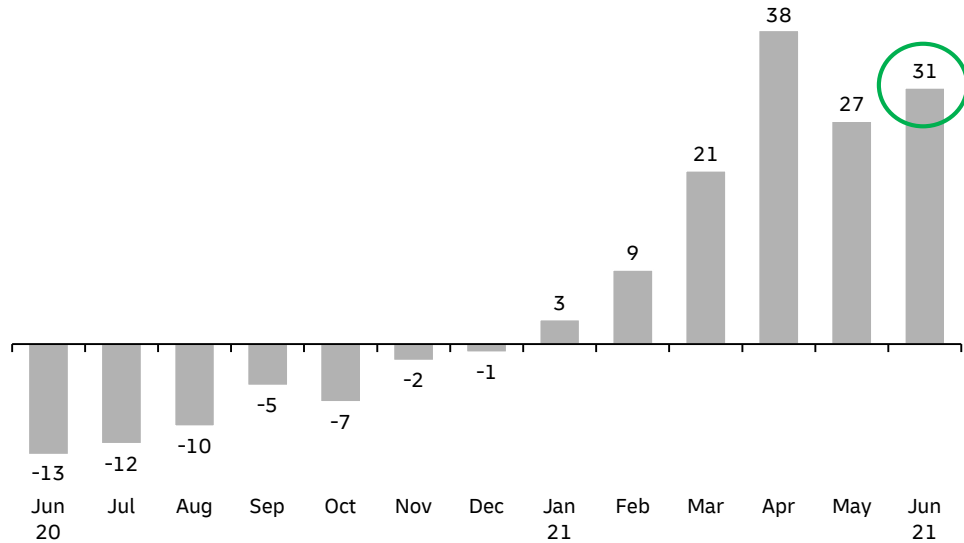
- After contraction in 2020, the IMF has revised up forecast for the world economy to growth by 6%
- Demand growth remained strong in 2021; now above pre-pandemic levels
- Overall scheduled capacity decreased by -23% in Jul 21 vs Jul 19; any improvement seen vs 2020 is due to last year's very low base
- Lack of cargo capacity still remains a key obstacle for the rising demand
- Jet fuel price ended at around \$79/b in Jul 21

Source: IHS Markit Group, IATA, Seabury, Economic Data Factbook, IMF

Demand

Global Volume Development

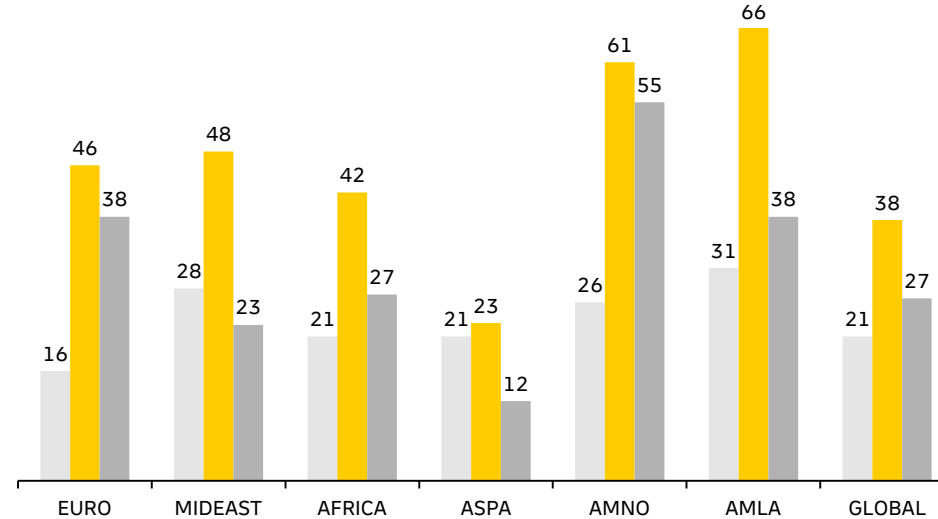
In Tons (% change YoY)



Regional Volume Development

In Tons (% change YoY)

Mar 21 Apr 21 May 21

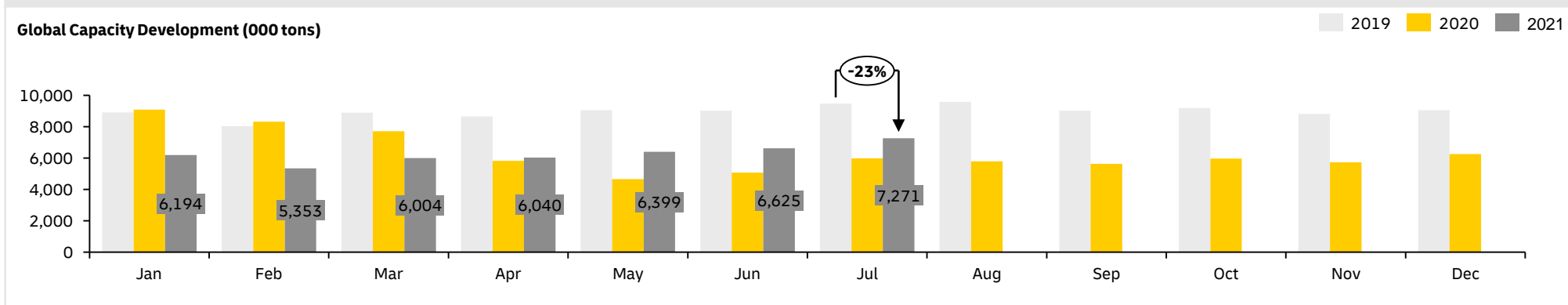


Source: Seabury
*I/S- Inventory to Sales ratio

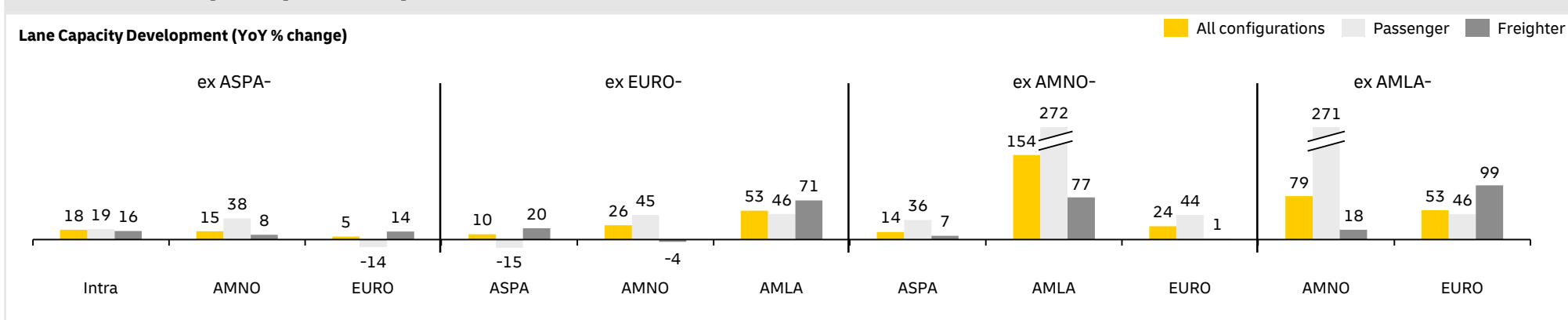
- Demand growth remained high for all regions; overall growth **+31%** YoY in Jun 21
- In **YTD** comparison, demand is **already higher than 2019** levels
- **Congested ocean ports** still adding to air volumes; **disruption bigger than Suez Canal incident**
- ASPA-AMER/EURO cargo movements continued in full swing; CN situation may affect demand in coming months
- AMNO e-commerce remained very strong; **US imports increased +32%**
- Strong import volumes to LATAM mainly due to ocean congestions
- EU outbound demand continued to improve
- **PMIs are above 50 mark** for key markets which indicates high volumes in coming months; **as peak shipping season approaches**

Supply

Global Capacity Development



Trade Lane Capacity Development

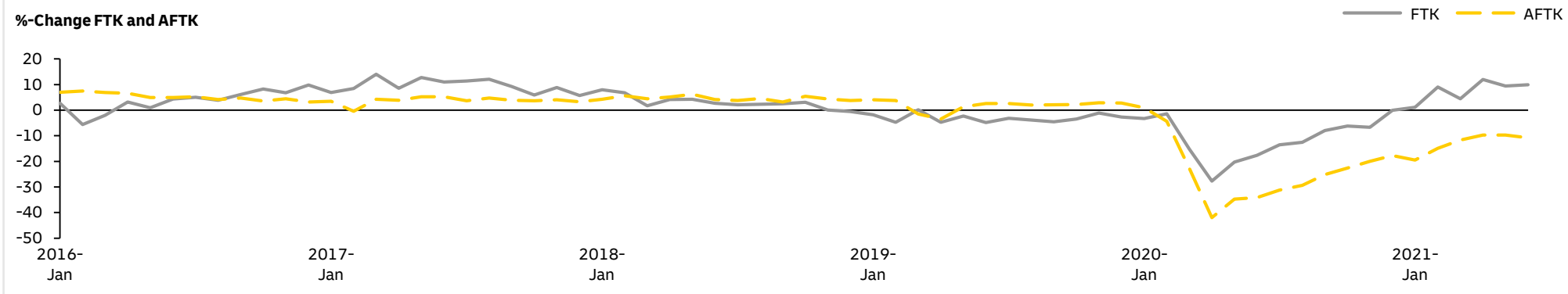


- Global capacity still affected & down **-23% against Jul 19**
- The YoY increase vs 2020 is due to severe decline in capacity in 2020
- **Belly capacity improved slightly** in cue with increasing vaccinations; **still -35% below** pre-COVID levels
- Transatlantic capacity improved but EU to AMER belly capacity still restricted vs 2019
- AMNO, AMLA capacity growth influenced by strong influx of vaccines, intra-AM perishable trade; sudden spike due to low 2020 baseline
- Capacity still insufficient to support current demand

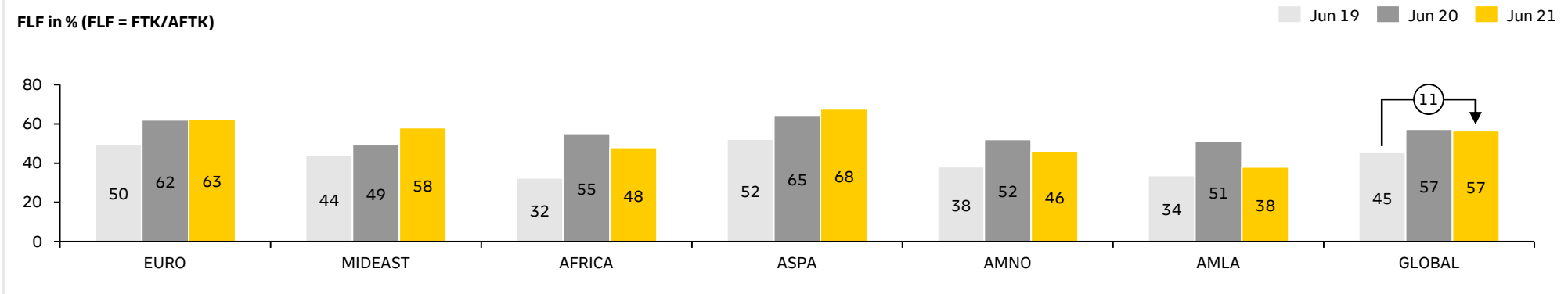
Source: Seabury

Utilization

Global Freight Load Factor Development



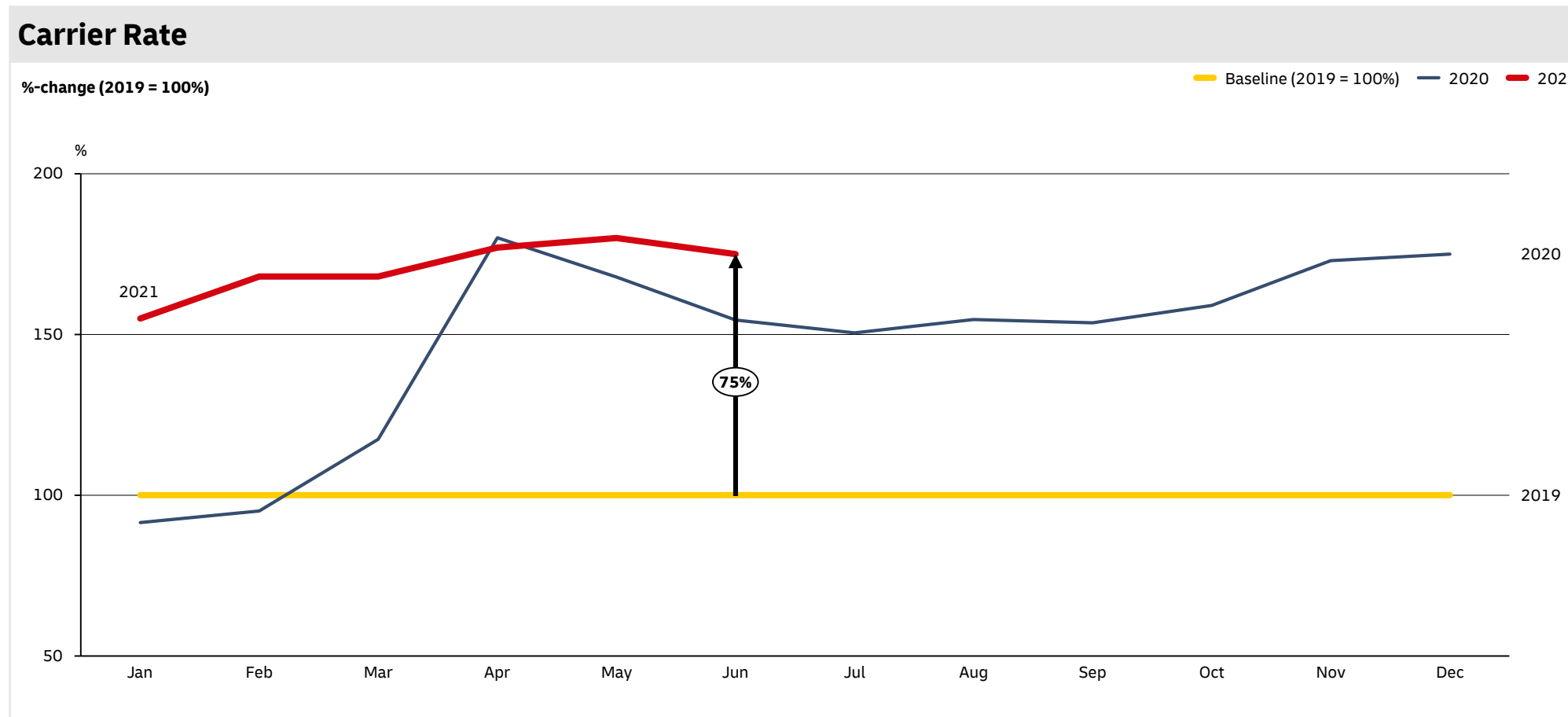
Regional Freight Load Factor Development



Source: IATA; 2021 onwards FTK and AFTK are being compared against same month in 2019

- Recovery in capacity lagged rebound in cargo demand - gap between supply (AFTK) and demand (ATK) appears close in a YoY comparison but remains high when compared against 2019
- Resilient cargo volumes against reduced capacity led to high load factors in all regions
 - Freight Load Factor (FLF) is an indicator of how tight is the demand-supply balance
- Industry-wide FLF in Jun 21 was at par with Jun 20 but still **up +11 percentage points** compared to pre-crisis Jun 19
- Global FLF level was at 57% in Jun 21; international **FLF of 64% was a new record-high** for any month of Jun in history

Rates-Global Carrier Rate Development

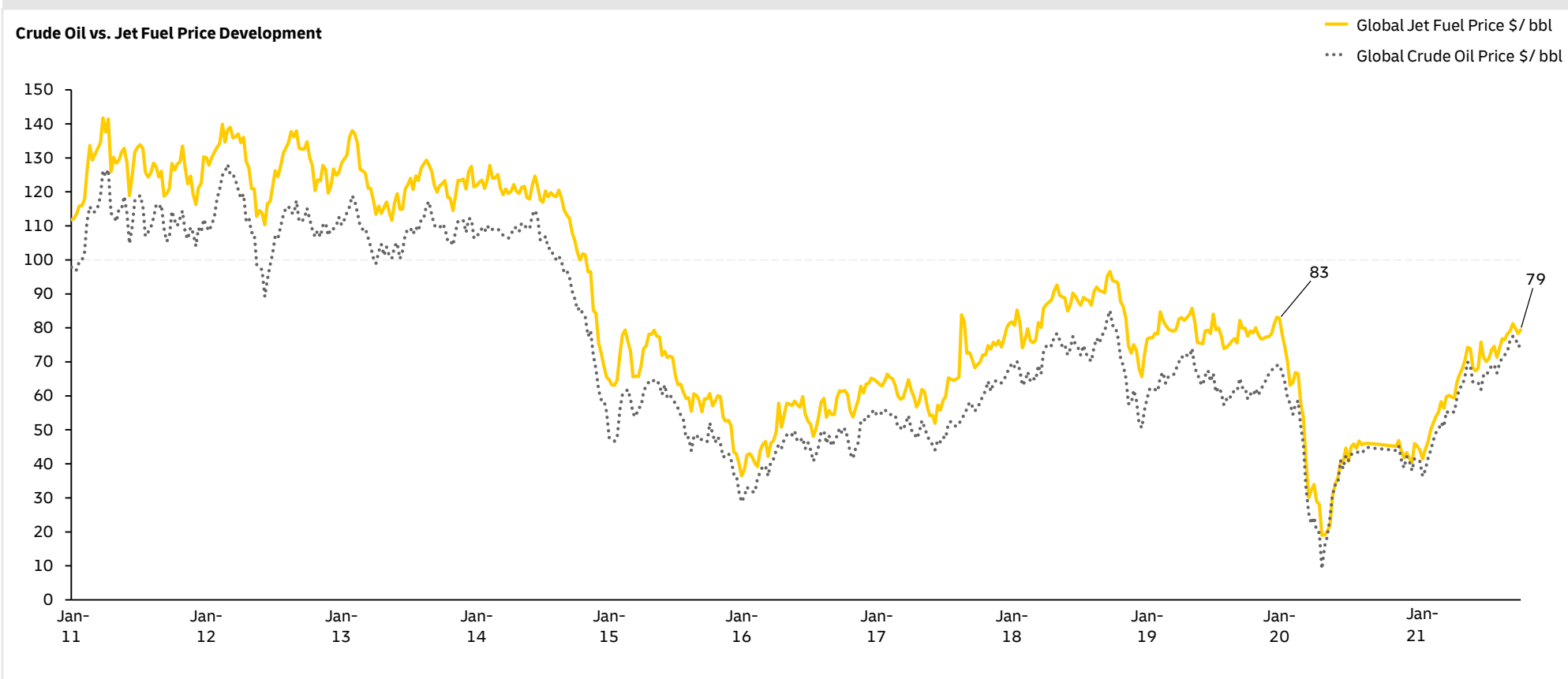


- Rates were **+75% higher** in Jun 21 than 2019 baseline and **+13% more** than a higher 2020 baseline
- Rates continued to remain high in Jun as manufacturers still replenishing stocks using air freight
- Rates will remain high as we continue to see huge demand growth against limited capacity; **upcoming peak season will push demand higher**
- Despite high rates, relative **price gap to ocean freight shrunk dramatically**: landed cost of air now quite favourable vs ocean
- Airlines continue to manage yields aggressively; extra capacity still available at a premium

Source: IATA; average freight rate including other charges

Jet Fuel

Jet Fuel Price Development



- Jet fuel price ended at around \$79/b in Jul 21
- Prices averaged \$75/b in Jul 21, **up further by \$2/b from Jun** and \$25/b higher than in '20 end
- Heightened levels of **uncertainty in Covid recovery expected to push price higher**, continued to increase from \$60/b in Jan 21
- **Production expected to increase in '22**; likely to bring stability in price
- **EIA continues to forecast** Brent prices to average \$72/b from Aug to Nov 21

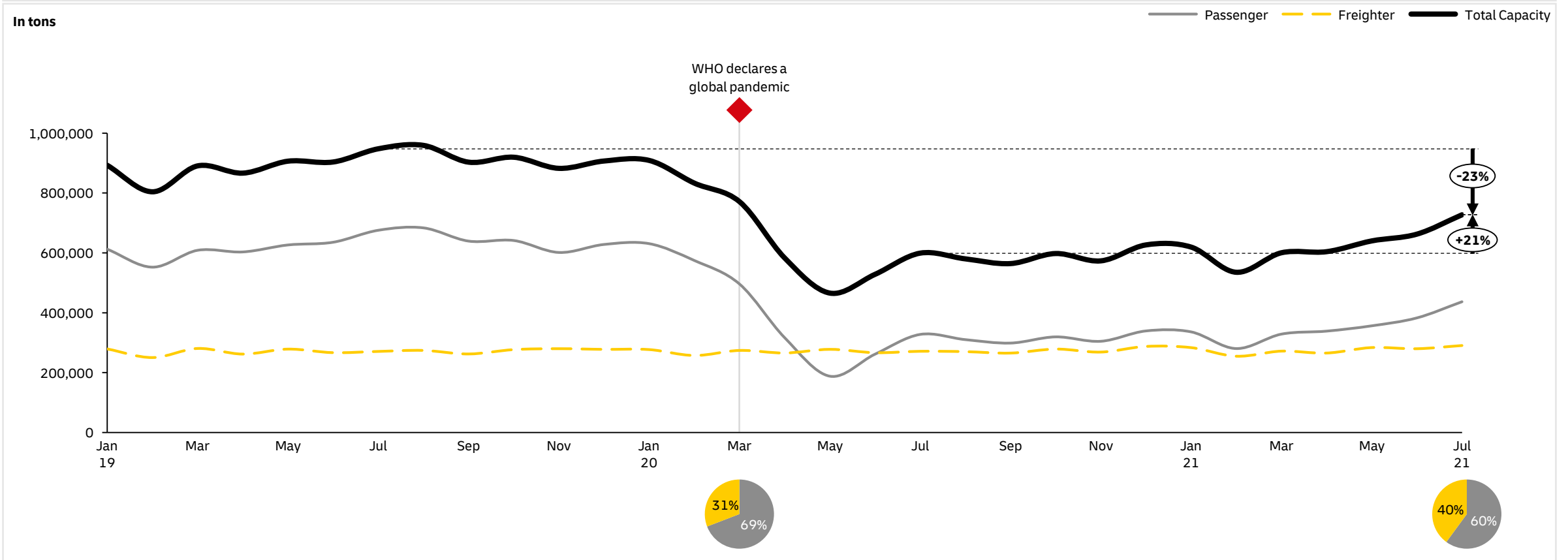
Source: DGF Desk Research



BACKUP

Global Capacity Development

Capacity Development by Aircraft Configuration January 2019 – June 2021



Source: Seabury (Total Capacity includes marginal Combi aircraft contribution)

DHL AIR-TRUCK SOLUTION

Airfreight transshipment via Hong Kong into China

HKG-CN Trucking Lead Time & Max. Volume / Gross Weight for different Truck Type

Routing	Truck Type Max. Volume / Gross Weight	Lead Time
HKG → SZX		1 Day
HKG → SZX → CAN		1 Day
HKG → SZX → XMN	3T Truck – 12 CBM / 1,200 KG	2 Days
HKG → SZX → SHA	8T Truck – 25 CBM / 4,800 KG	3 Days
HKG → SZX → BJS	10T Truck – 32 CBM / 6,500 KG	4 Days
HKG → SZX → CKG	12T Truck – 38 CBM / 10,000 KG	4 Days
HKG → SZX → CTU	40' Container – 58 CBM / 18,000 KG	5 Days

Remarks:

- Lead Time (for HKG IMP handling) will be 1 day (or ULD recovery and break-down)
- The rates for HKG-CN trucking charges are:
 - Only applicable for general cargo. Special commodity, DG, temperature control are required to have separate quote.
 - Not include loading & unloading fee, customs inspection, gate-in or registration fee and truck detention.



DHL TRUCK-AIR SOLUTION

Airfreight transshipment from China via Hong Kong to Worldwide

HKG-CN Trucking Lead Time & Max. Volume / Gross Weight for different Truck Type		
Routing	Truck Type Max. Volume / Gross Weight	Lead Time
SZX → HKG		1 Day
CAN → SZX → HKG		1 Day
XMN → SZX → HKG	3T Truck – 12 CBM / 1,200 KG	2 Days
SHA → SZX → HKG	8T Truck – 25 CBM / 4,800 KG	3 Days
BJS → SZX → HKG	10T Truck – 32 CBM / 6,500 KG	4 Days
CKG → SZX → HKG	12T Truck – 38 CBM / 10,000 KG	4 Days
CTU → SZX → HKG	40' Container – 58 CBM / 18,000 KG	5 Days

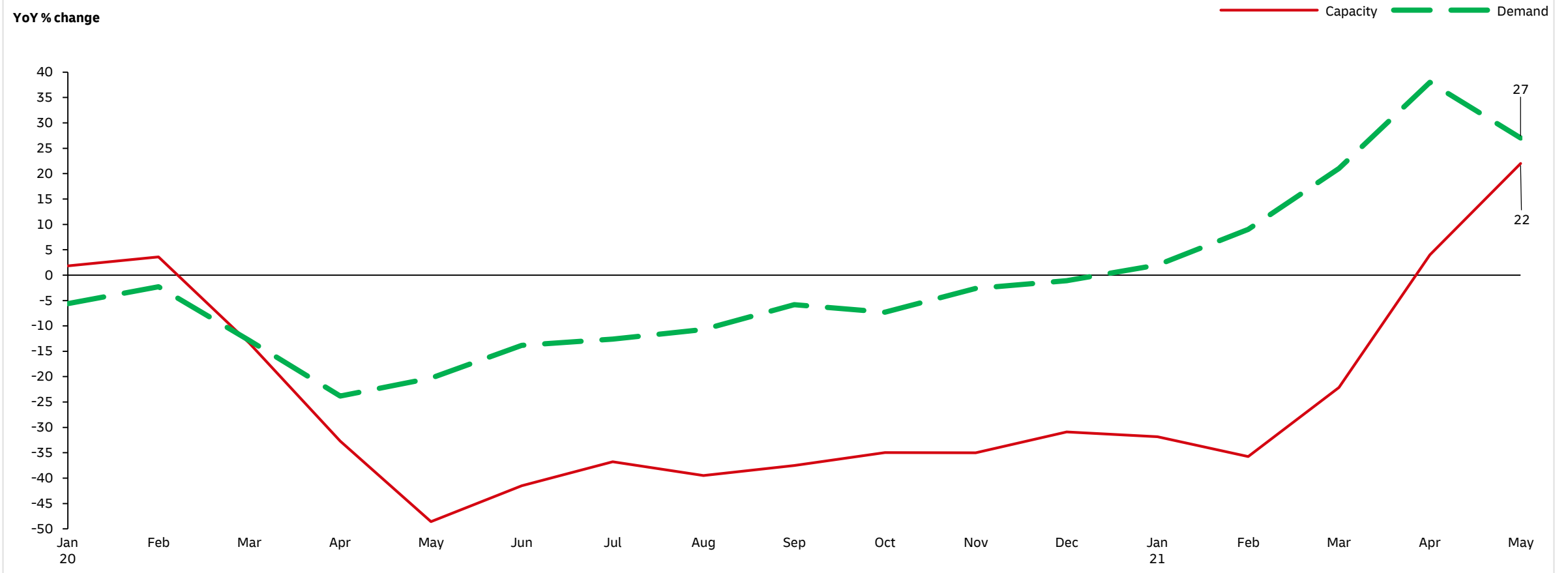
Remarks:

- Lead Time (for HKG EXP handling) will be 1 day
- The rates for HKG-CN trucking charges are:
 - Only applicable for general cargo. Special commodity, DG, temperature control are required to have separate quote.
 - Not include loading & unloading fee, customs inspection, gate-in or registration fee and truck detention.



Global Capacity vs Demand Development

Capacity vs Demand YoY change gap continues



Source: Seabury

Abbreviations

Explanation of Abbreviations

AFTK	-	Available Freight Ton Kilometers
AMLA	-	Latin America
AMNO	-	North America
ASPA	-	Asia Pacific
ATK	-	Available Ton Kilometers
Bbl	-	Barrel
bn	-	Billions
CAGR	-	Compound Annual Growth Rate
FLF	-	Freight Load Factor
FRT	-	Freighters (in the airline industry)
FSC	-	Fuel surcharge
FTK	-	Freight Ton Kilometers (also referred to as Cargo Ton Kilometers or CTK)
IATA	-	International Air Transport Association
ICAO	-	International Civil Aviation Organization
LY	-	Last Year
mn	-	Millions
MoM	-	Month-on-Month
PAX	-	Passengers (in the airline industry)
PPE	-	Personal Protective Equipment
Pts	-	Percentage points
RPK	-	Revenue-Passenger-Kilometers
SSC	-	Security surcharge
T	-	Thousands
YoY	-	Year-on-Year
YTD	-	Year-to-Date