



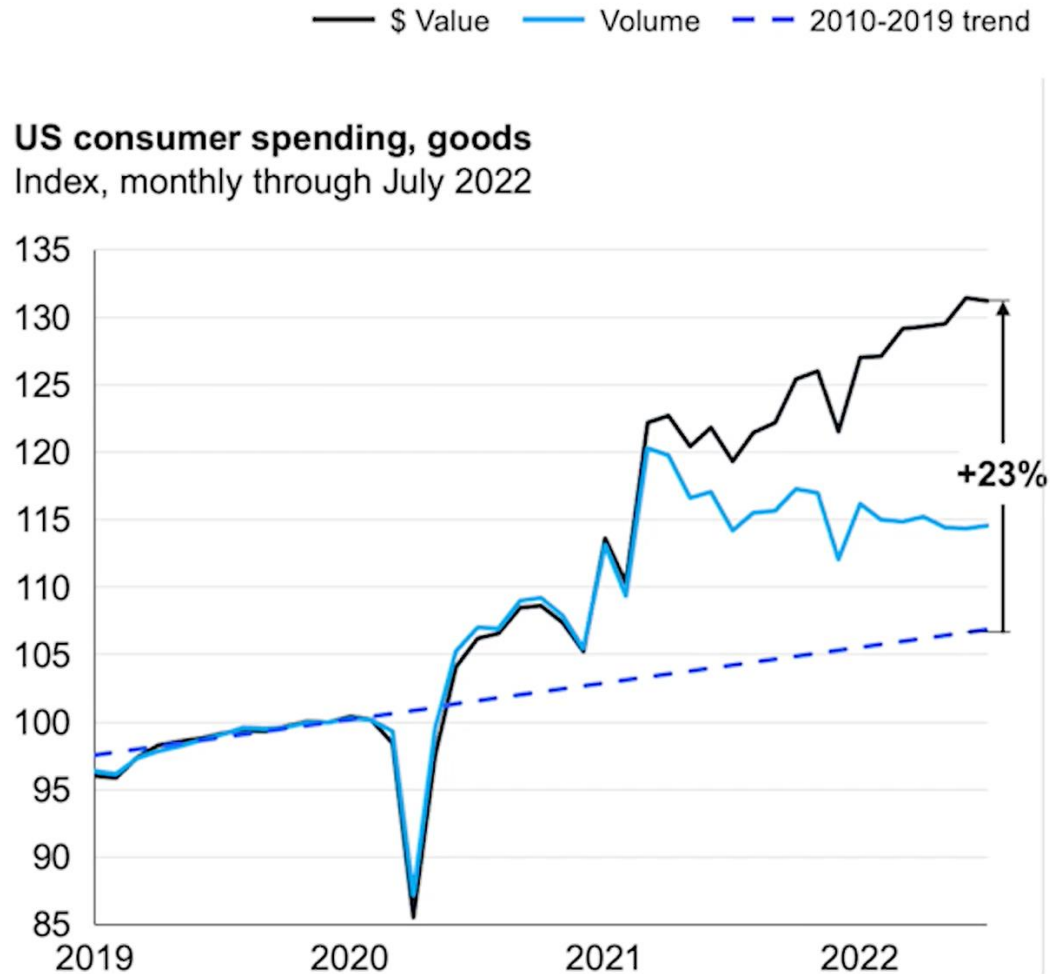
DSV Air & Sea

Market update December 2022

Economic update



US retailers; Inventories at the highest level



Source: BEA; United States Census Bureau; McKinsey analysis



U.S. Inflation Eased in November, CPI Report Shows

Consumer prices rose last month at the slowest 12-month pace since December 2021, closing out a year in which inflation hit the highest level in four decades and challenged the Federal Reserve's ability to keep the U.S. economy on track.

Consumer-price index, climbed 7.1% in November from a year ago, down sharply from 7.7% in October. The pace built on a trend of moderating price increases since June's 9.1% peak, but it remained well above the 2.1% average rate in the three years before the pandemic.

The Federal Reserve approved an interest-rate increase of 0.5 percentage point and signaled plans to lift rates through the spring, though likely in smaller increments, to combat high inflation

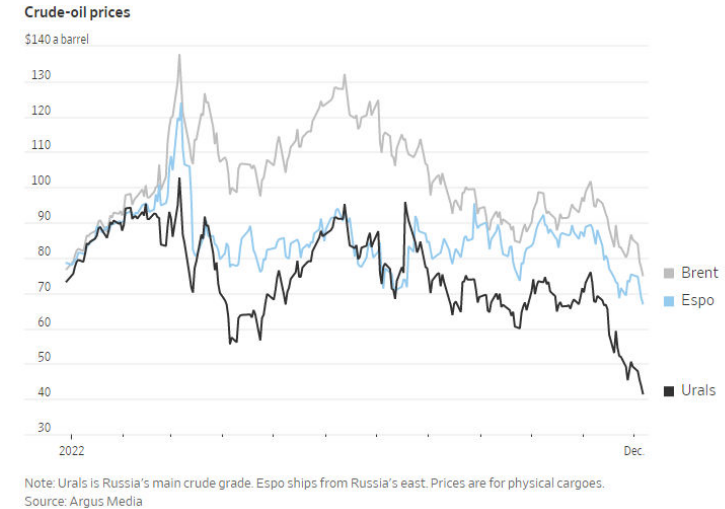


Ukraine war: Oil cap on Russian crude kicks in from December 5th at \$60 for Russian Oil barrel (Urals)

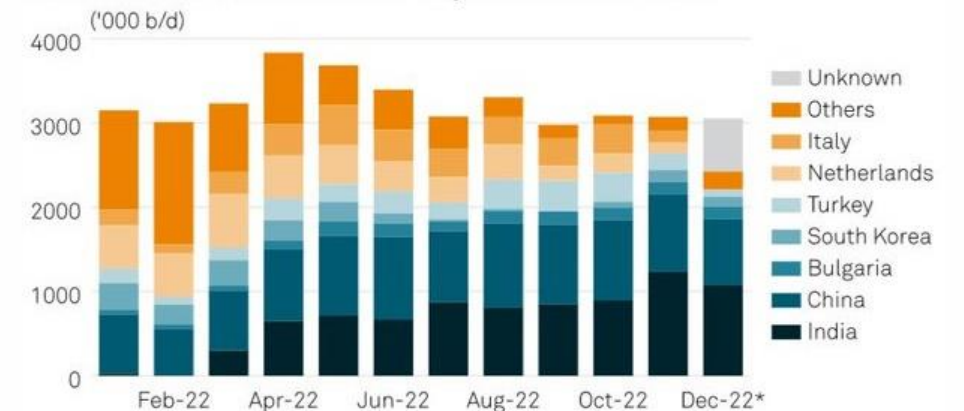
The price cap on Russian oil will limit price surges driven by extraordinary market conditions and drastically reduce the revenues Russia has earned from oil after it unleashed its illegal war of aggression against Ukraine. It will also serve to stabilise global energy prices while mitigating adverse consequences on energy supply to third countries.

The Council decision also introduced an exemption from the above-mentioned prohibitions for crude oil or petroleum products which originate in or are exported from Russia, and are purchased at or below a pre-established price cap agreed by the Price Cap Coalition.

The functioning of the price cap mechanism will be reviewed every two months to respond to developments in the market, and will be set at least 5% below the average market price for Russian oil and petroleum products, calculated on the basis of data provided by the International Energy Agency.



Russia's seaborne crude export shift to Asia



Source: UE & S&P

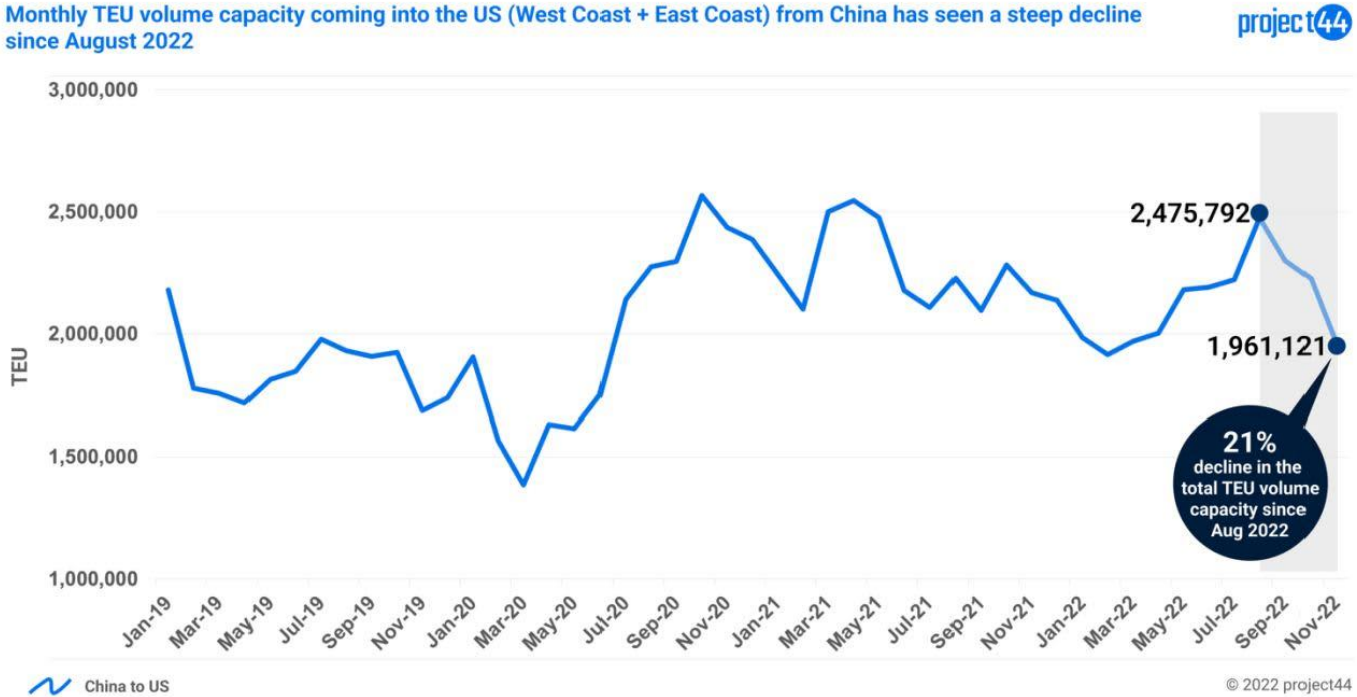
U.S. manufacturing orders from China down 40% in unrelenting demand collapse

U.S. manufacturing orders in China are down 40%.

Chinese factories are shutting down two weeks earlier than usual ahead of Chinese New Year.

As the Federal Reserve and other central banks around the world attempt to fight inflation by raising interest rates and cooling the economy, there is significant risk that a slowdown in demand turns into a recession.

Carriers have been executing on an active capacity management strategy by announcing more blank sailings and suspending services to balance supply with demand



Surprise European manufacturing increase to the US

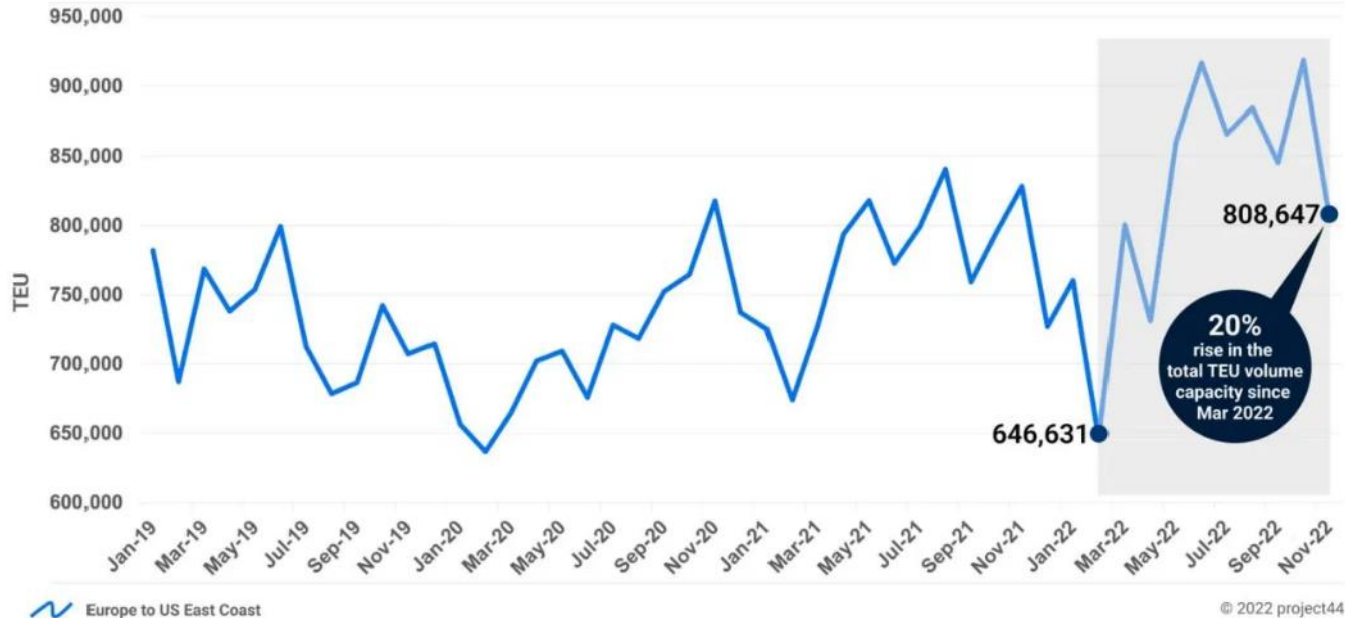
There is a strategic shift from over-dependency on trade with China and geopolitical tensions over Russia are the main drivers of the EU-U.S. trade boom.

The global trading map is being rapidly redrawn, with EU-U.S. trade and investment in U.S. rising sharply as economic ties between the West and China are subjected to critical scrutiny. This year, the U.S. has imported more goods from Europe than China – a big shift from the 2010s

Germany's exports to the U.S. were almost 50% higher in September year over year. Germany's mechanical engineering sector has boosted its exports to the U.S. by almost 20% in a year over year comparison of the first nine months of 2022

Monthly TEU volume capacity coming into US East Coast from the European regions has seen a sharp rise since March 2022

project44



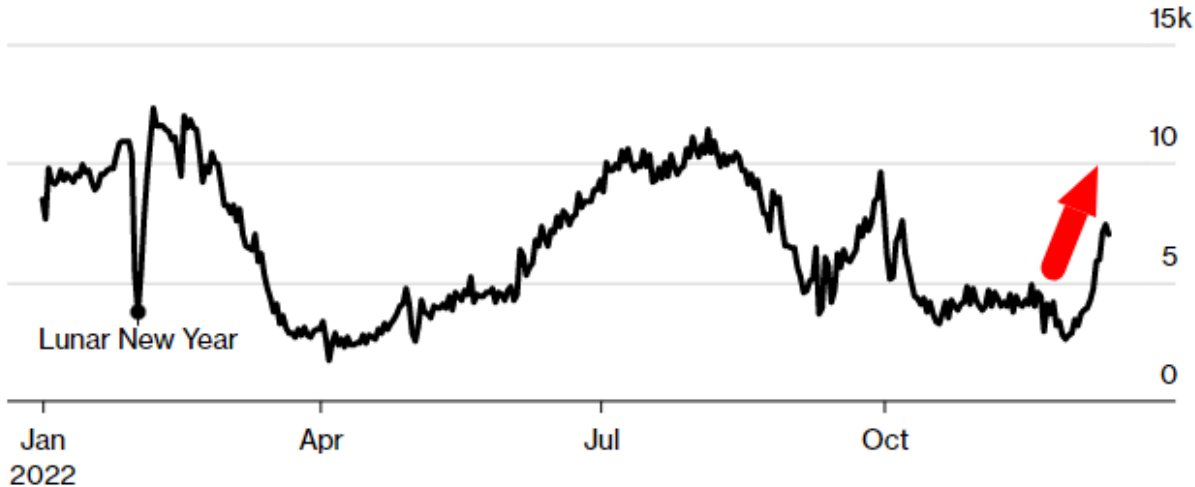
China Covid-19 update



China's domestic air travel demands rebounds on covid Zero easing

Up, Up and Away

China's domestic air travel demand rebounds on Covid Zero easing
/ Daily domestic China flights



China's rapid unwinding of Covid Zero restrictions has spurred a sharp recovery in the world's biggest domestic air-travel market.

Domestic flight activity jumped to around 65% of pre-pandemic levels Monday, from just 22% on Nov 29th according to Chinese aviation data company VariFlight.

Ticket sales for the crucial Lunar New Year period in late January have also surged.

Warehouses and port facilities in China have lifted covid restrictions

China Terminal/Drayage situation

	Booking affected by Covid		Ports status Updating	Vessels Delay Situation (including container ships)		Drayage		Remark
	Y/N	Reduced percentage		Vessels Delay Situation (including container ships)	Vessel Delay Percentage	Trans - city (Y/N)	Trans - province (Y/N)	
Shanghai	N	5%	All terminal operations keep normal.	2-3 days	35%	Y	Y	Negative PCR test result is no longer required.
Zhejiang(Ningbo)	N	5%	All terminal operations keep normal.	2-3 days	35%	Y	Y	Negative PCR test result is no longer required.
Yang Zi River (Nanjing)	N	5%	All terminal operations keep normal.	3 days	50%	Y	Y	Negative PCR test result is no longer required.
Qingdao	N	5%	All terminal operations keep normal.	1-2 days	30%	Y	Y	Negative PCR test result is no longer required.
Tianjin	N	5%	All terminal operations keep normal.	3 days	30%	Y	Y	Negative PCR test result is no longer required.
Dalian	N	5%	All terminal operations keep normal.	2-3 days	30%	Y	Y	Negative PCR test result is no longer required.
Shenzhen	N	5%	All terminal operations keep normal.	2-3 days	40%	Y	Y	Negative PCR test result is no longer required.
Xiamen	N	5%	All terminal operations keep normal.	3 days	30%	Y	Y	Negative PCR test result is no longer required.
Fuzhou	N	5%	All terminal operations keep normal.	1-2 days	20% (feeder only)	Y	Y	Negative PCR test result is no longer required.

Latest restrictions COVID-19

APAC

Note: The following updates are based on various online sources and subject to changes due to the evolving COVID situation.

Australia

- AU lifted all Covid-19 border restrictions for travelers, all visa holder can travel to AU without a travel exemption.
- Unvaccinated Australian citizens & permanent residents can leave AU without an individual travel exemption.

New Zealand

- Travelers to NZ are not required to be vaccinated or to test for COVID-19 after arriving.
- The requirement to not exhibit COVID-19 symptoms has also been removed. All travelers are however encouraged to complete a Day 0/1 and Day 5/6 RAT.

Mainland China

- China announces nationwide loosening of Covid restrictions. Covid-19 tests will be reduced, lockdowns limited, and isolation at home allowed.
- Earlier, the government reduced isolation from 10 to eight days - five days at an isolation centre, plus three at home.

Hong Kong

- Travelers are required to do home medical surveillance for 3 days
- From 9 Dec, all travelers are only required to undergo RATs daily until Day 5 after their arrival in Hong Kong.
- Travelers are not required to wait for result when register "test-and-go" upon arrival.

Taiwan

- Travelers to TW need to undergo 7 days of "self-monitor".
- Travelers are no longer required to provide PCR test result, but if they want to go out during the weeklong monitoring period, they need a negative test result within the past 2 days.
- TW removed weekly cap of arrivals

Japan

- Japan relaxed border control measures, as well as resumed visa-free travel and individual travel.
- Tourists must present a proof of vaccination or a negative coronavirus test within 72 hrs before departure if not vaccinated.

Korea

- All travelers are not required to present any negative COVID-19 test result.
- There are no quarantine requirements for all travelers.
- All travelers are still required to register for Q-code on Gov website prior to entry into Korea.

Singapore

- No entry approvals, pre-departure tests, on-arrival tests and quarantine required by fully vaccinated travelers
- Non-fully vaccinated visitors will no longer need to apply for entry approval or undergo quarantine. PCR/ART is required.

Malaysia

- Pre-Departure Test (PDT), On-Arrival Test (OAT) and Traveller's Pass are no longer required.
- Travelers are not required to do quarantine when visiting Malaysia.
- Inbound travelers will no longer need to fill in the Traveler's Card.

Vietnam

- Vietnamese gov already lifted the requirement for quarantine, Covid test result on arrival and present of vaccination certificate for all incoming travelers.
- E-visa for a stay of up to 30 days is available to travelers.

Cambodia

- All COVID-19 restrictions were lifted. All travelers can now visit Cambodia without proof of COVID-19 vaccination, or a negative COVID-19 test result.
- E-visa for a stay of up to 30 days is available to travelers.

Thailand

- All COVID-19 restrictions have been removed. Travelers are no longer required to provide vaccination status/negative test result
- Visa exemption for a stay is extended to 45 days.
- The Visa on arrival (VOA) for a stay is extended to 30 days.

Myanmar

- Fully vaccinated travelers are only required to present proof before arrival and must have done a test upon arrival.
- Unvaccinated travelers still need to present RT-PCR test proof (within 48 hr prior to departure).
- All travelers must present medical insurance at airport.

Philippines

- Fully vaccinated travelers are only required to show proof of vaccination.
- Unvaccinated or partially vaccinated travelers are required to have (within 24 hr) pre-departure test only.
- Quarantine requirement was lifted.

Indonesia

- Fully vaccinated travelers are no longer required to provide PCR test result upon arrival or have COVID-19 insurance coverage and now exempted from mandatory quarantine.
- Non-fully vaccinated travelers must show the recovery certificate for entry to Indonesia.

Port congestion

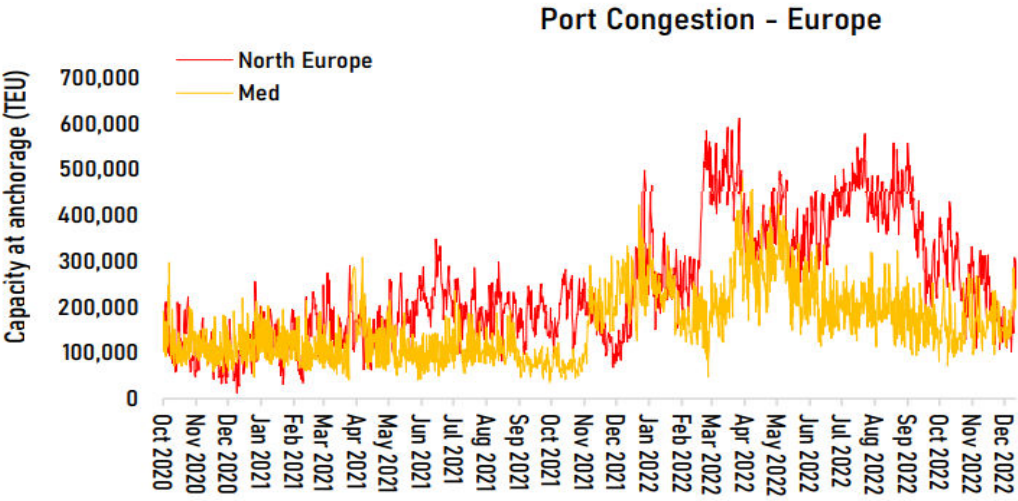
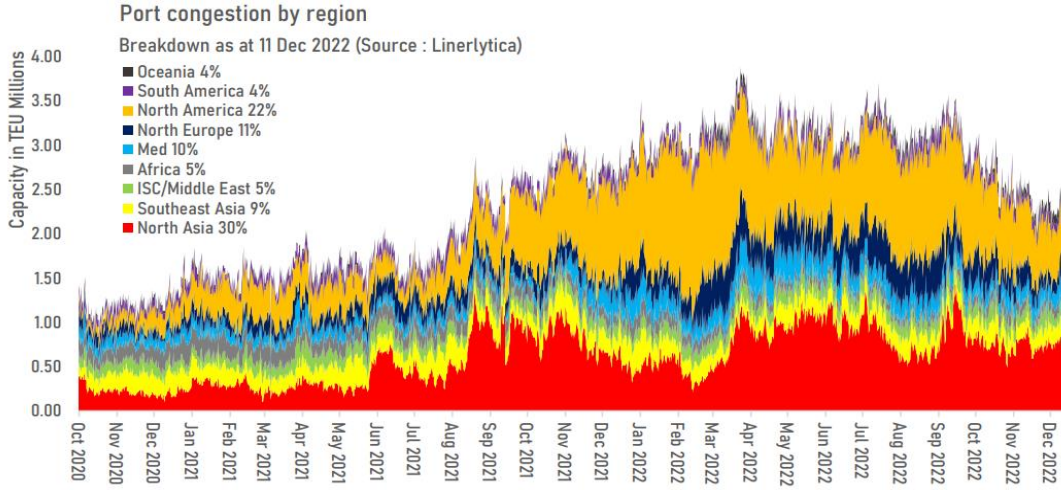


Global port congestion

8,8 % congestion is mainly declining in USA, while small increases in Europe and Asia



Global congestion continues to ease – 8.8%

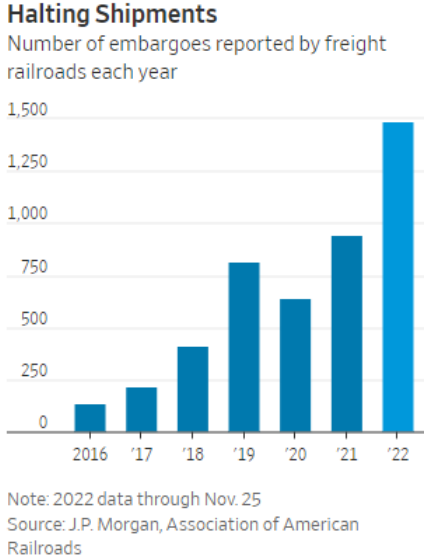
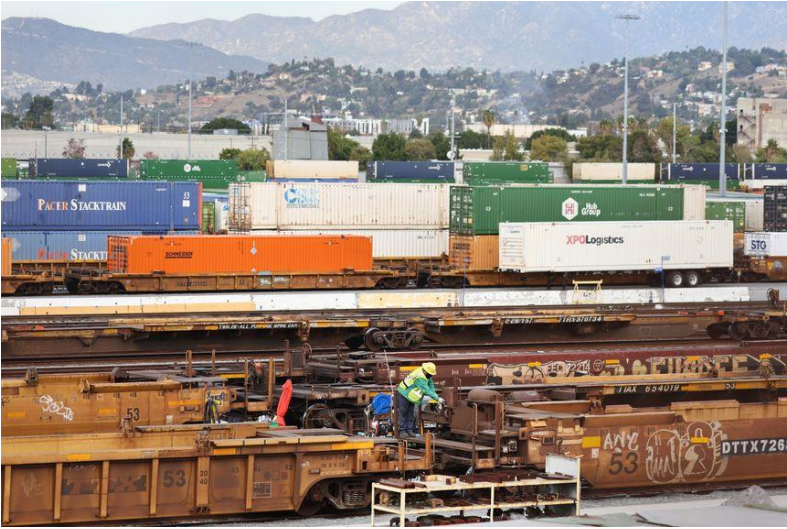


Global port congestion edged up last week on rising congestion in Europe, with both North Continent and Med ports recording increased vessel delays. In North Europe, congestion is mainly concentrated in the Benelux ports of Antwerp and Rotterdam, as well as in the UK with Felixstowe and Southampton still facing delays.

In the Med, congestion has built especially around the Spanish port of Barcelona, Valencia and Algeciras as well as in the East Med hub of Piraeus. Smaller ports in the Middle East and Black Sea region are also facing high yard density that have resulting berthing delays.

Congestion in North Asia continues to remain high, which carriers still relaying on ad hoc blank sailings to manage excess capacity

US rail strike threatens after latest union rejection of compromise deal



President Biden signed a restricting rail workers from striking, but the industry is still struggling with a big problem: having enough staff to handle customer demand.

The largest U.S. freight railroads have reported strong profits in recent years, helped by higher prices and steady business in transporting everything from automobiles to fertilizer. Export demand for coal and grain, stemming from disruptions in supply chains in Europe after Russia invaded Ukraine, bolstered freight volumes this year, railroads said.

At the same time, railroads continue to face disruptions tied to having a shortage of workers. This year, Union Pacific Corp. and BNSF Railway have issued more embargoes—restrictions placed on the amount of cargo that can be transported—than in previous years. Railroads issue embargoes as a way to control traffic movements when service is disrupted due to a disaster or to ease congestion. .

Ocean update

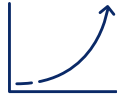


DSV

What to expect for 2023



Volumes / **demand down by ~20%** (depending per trade)



High inflation, energy crisis, low consumer confidence, geo-political disruptions



Near sourcing strategies (risk mitigation within the supply chain + sustainability)



Global **port congestion is at 8.8%** coming from 14%, adding more capacity to the market



Over the upcoming two years ~**Mio 7 TEU in capacity is flooding** the markets due to various new build programs

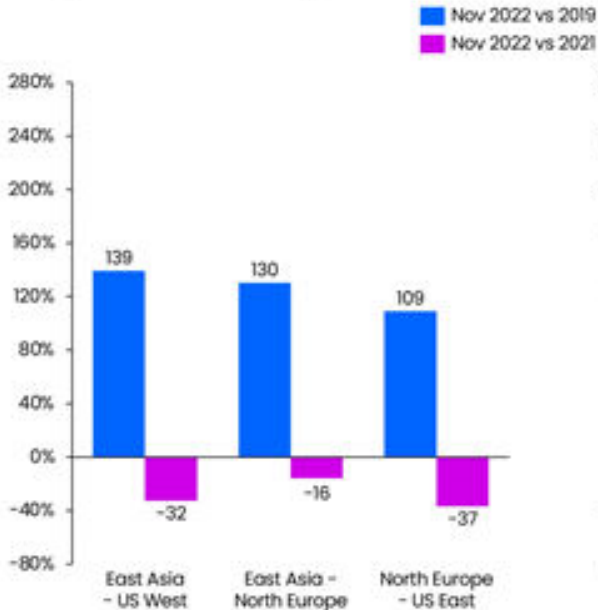


Slow steaming (=IMO2023) will not impact the big volume trades too much, active tonnage is still young and complies with IMO regulations – it will be relevant for out-ports and less dominant trades

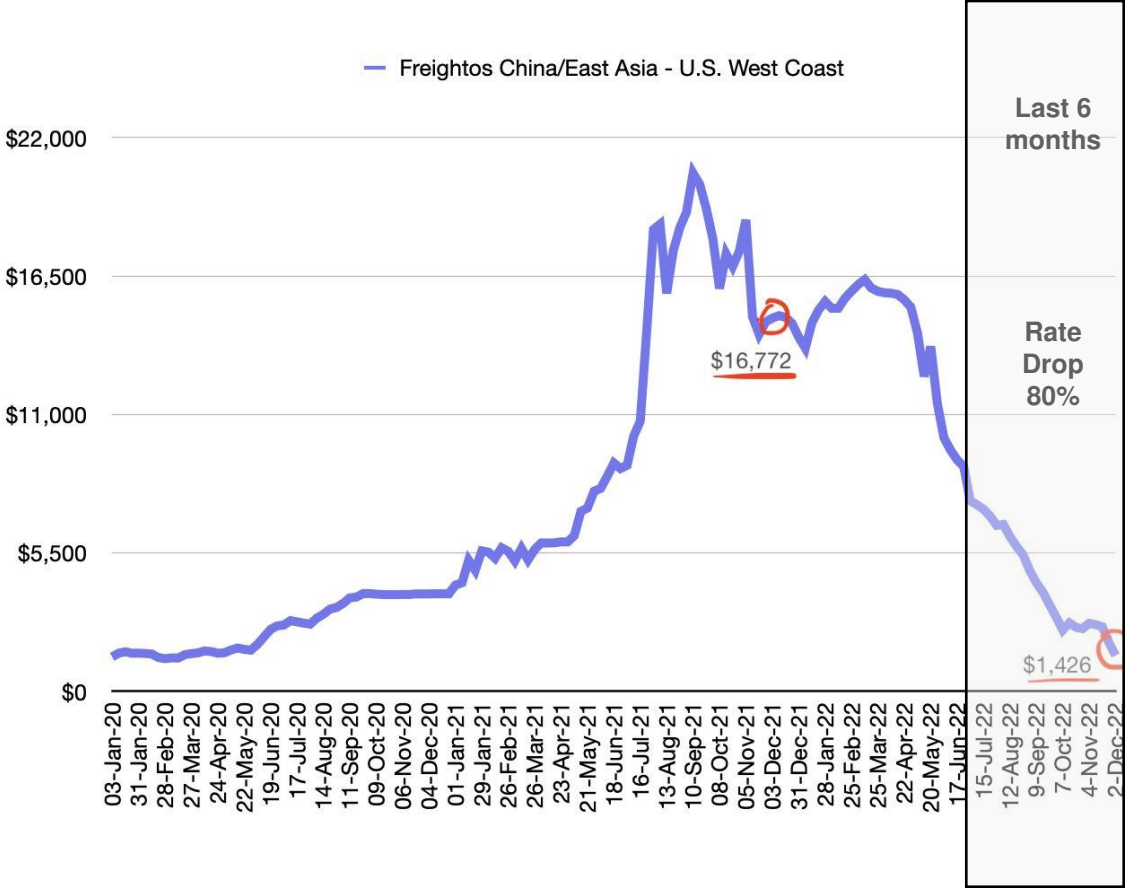
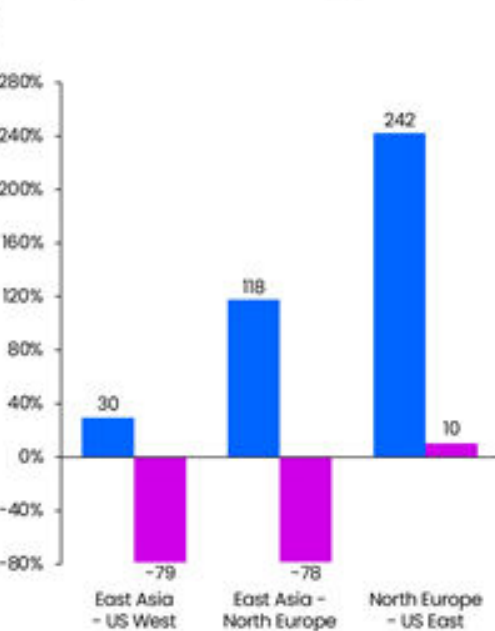
Last quarter spot rates have dropped adding pressure to long term rates more on ocean than airfreight

Changes in air cargo rates are less diverse among top corridors, compared to ocean

Changes in November air freight rates

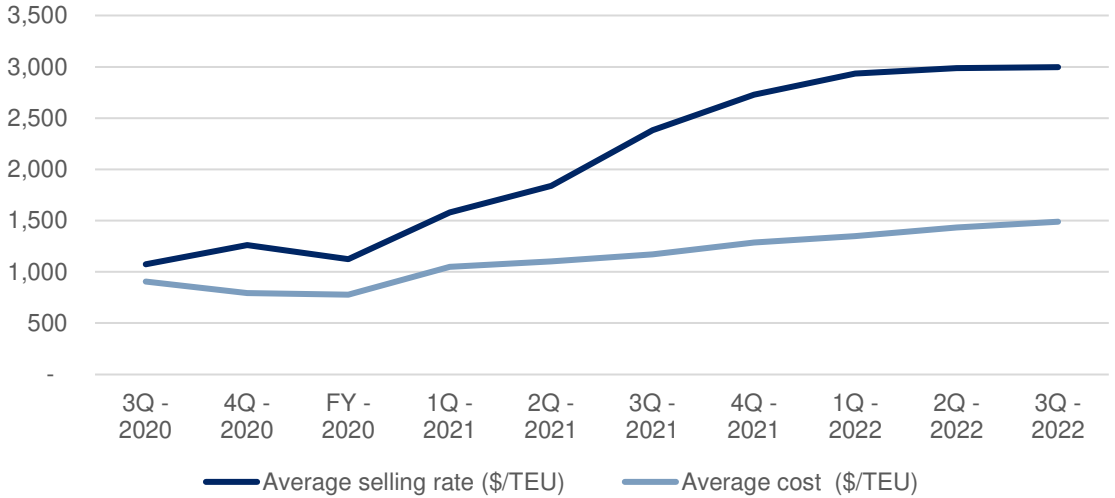


Changes in November ocean freight rates



Average cost per TEU for liners have been increasing in past months, from week 49 spot rates are below carrier operating cost

Average Maersk, CMA-CGM, ONE, Hapag and ZIM



Industry	3Q - 2020	4Q - 2020	FY - 2020	1Q - 2021	2Q - 2021	3Q - 2021	4Q - 2021	1Q - 2022	2Q - 2022	3Q - 2022
Average selling rate (\$/TEU)	1.075	1.261	1.124	1.579	1.838	2.382	2.729	2.934	2.988	2.997
Average cost (\$/TEU)	907	794	779	1.049	1.103	1.172	1.286	1.349	1.434	1.491

Reviewing financial Carrier information, we can see that the cost per TEU at the moment is at USD 1,191 per TEU on Q3-22.

Shanghai Index on week 49 was USD 1,138/TEU
Freightos index was at USD 1,162 per TEU

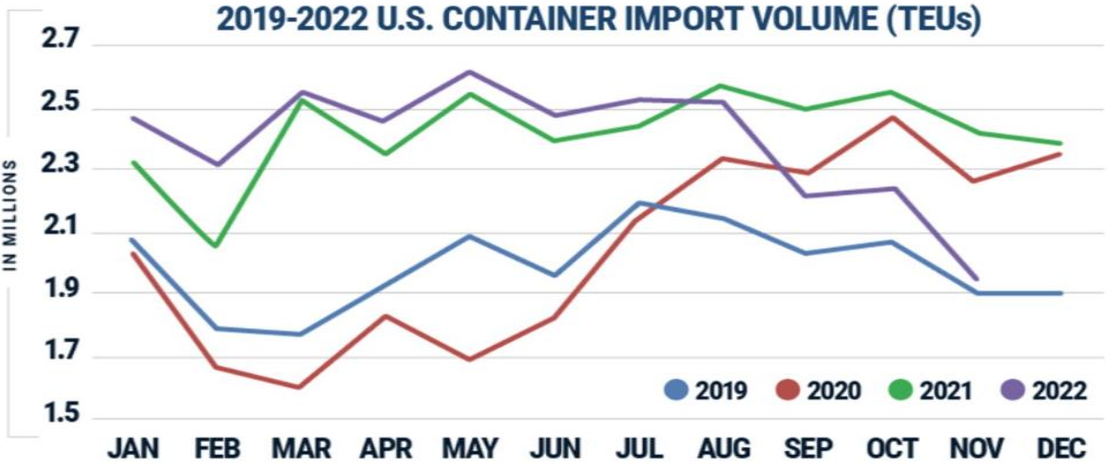
Spot rates are below now than reported cost, this doesn't mean that carriers will lose money since contractual rates are on the high size, but this gives a signal for 2023 that current spot rates are not sustainable in the long term and carriers will have to reduce more capacity to push rates in case that volumes are not recover.

From the financial reports, ONE was the carrier able to operate container with the lowest cost with 1,325\$/TEU and ZIM was the most expensive with USD 1,740\$/TEU.

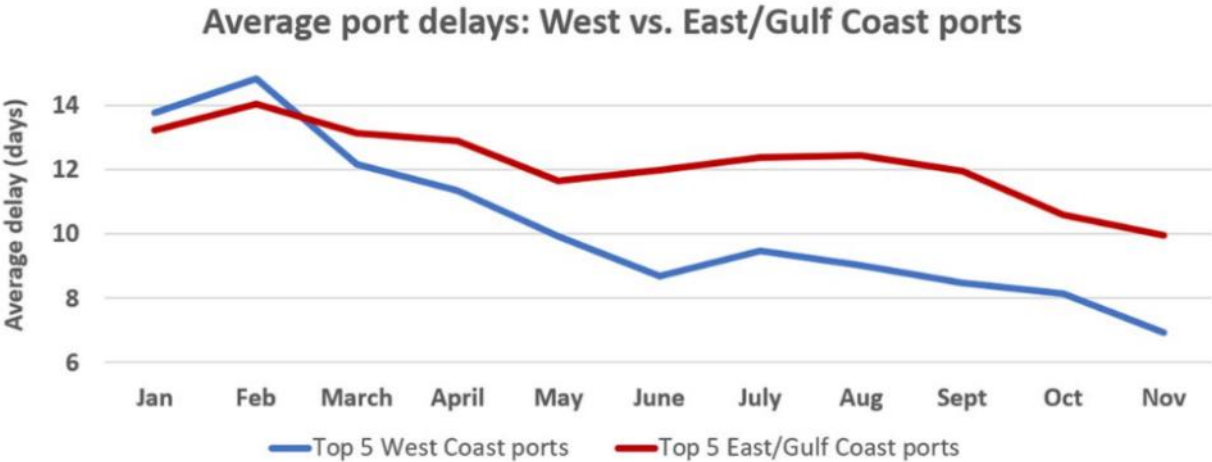
Selling rates are expected to drop 40% during Q4.



Plunge in US imports accelerates; volumes near pre-COVID levels



(Chart: Descartes based on data from Descartes Datamyne)



(Chart: American Shipper based on data from Descartes Datamyne)

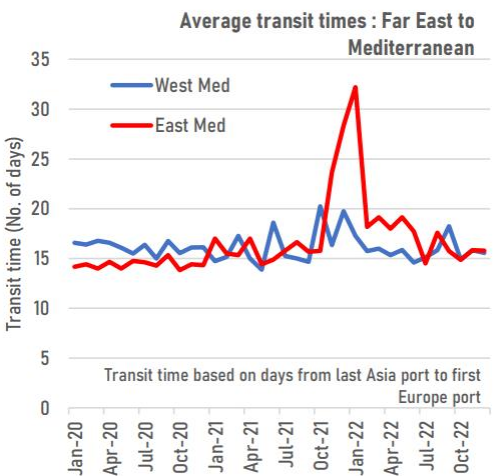
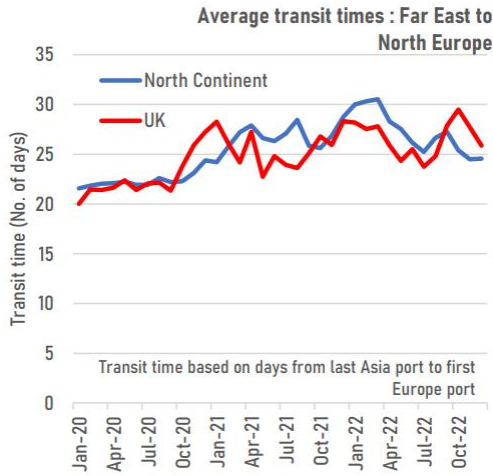
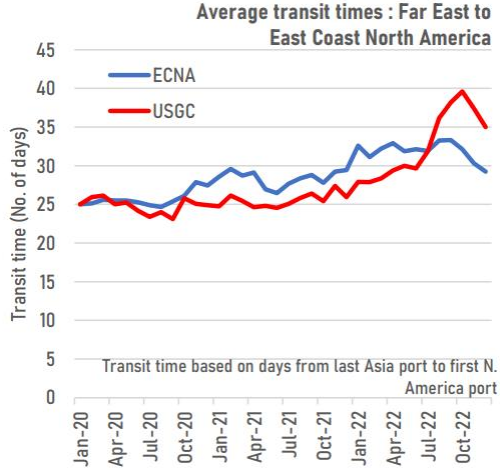
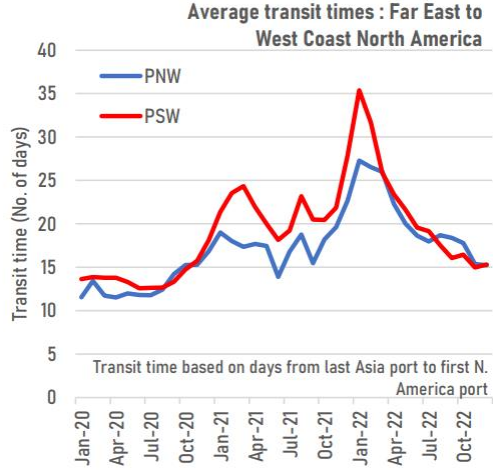
The situation remains far from normal at some U.S. ports. There were still 18 container ships at anchor waiting for a berth in Savannah, Georgia, on Monday. But for the country overall, plummeting inbound cargo volumes are bringing imports close to where they were before the pandemic-induced spending splurge.

Imports typically decline in November versus October — but not by this much. This year’s m/m November drop is the steepest recorded by Descartes since 2016.

The direction shown for import volumes is back to pre-pandemic levels, a trend that continues this month. Real-time U.S. Customs data measured in TEUs shows volumes in the first half of December at or below November levels.



Transit times on the main east-west routes have continued to improve over the past week in most of the trades



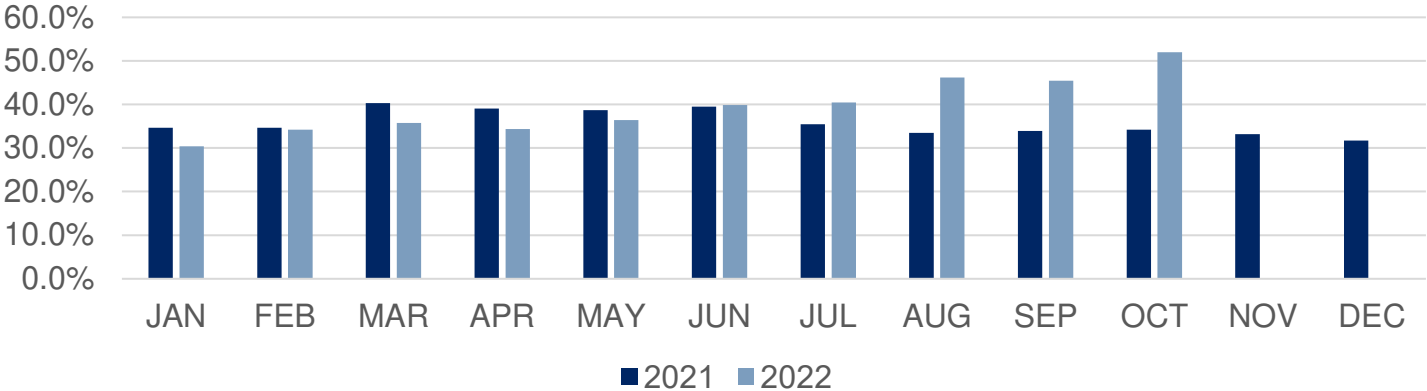
On the US West Coast, is coming back to precovid with services in general with the majority of recent arrivals at LA/LB taking less than 15 days to sail from Far East. Oakland continues to suffer delays with some ships waiting for over 7 days before berthing.

East Coast North America improvements in New York. For Savannah took over the last 7 days took just took 28 days to travel from Far East. Houston remains congested latest arrival took over 40 days to sail from Far East .

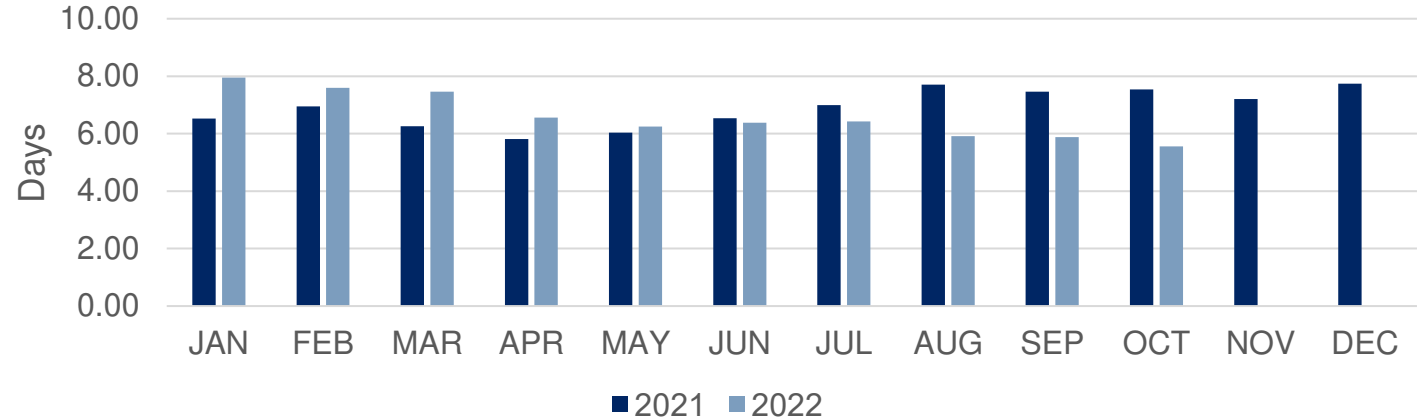
Transit times for arrivals at Felixstowe dropped to 22 days, improving further

Global Liner performance on October 2022 – 52% on time a 6% improvement

Carriers Schedule Reliability 2021 vs 2022



Average Delays 2021 vs 2022



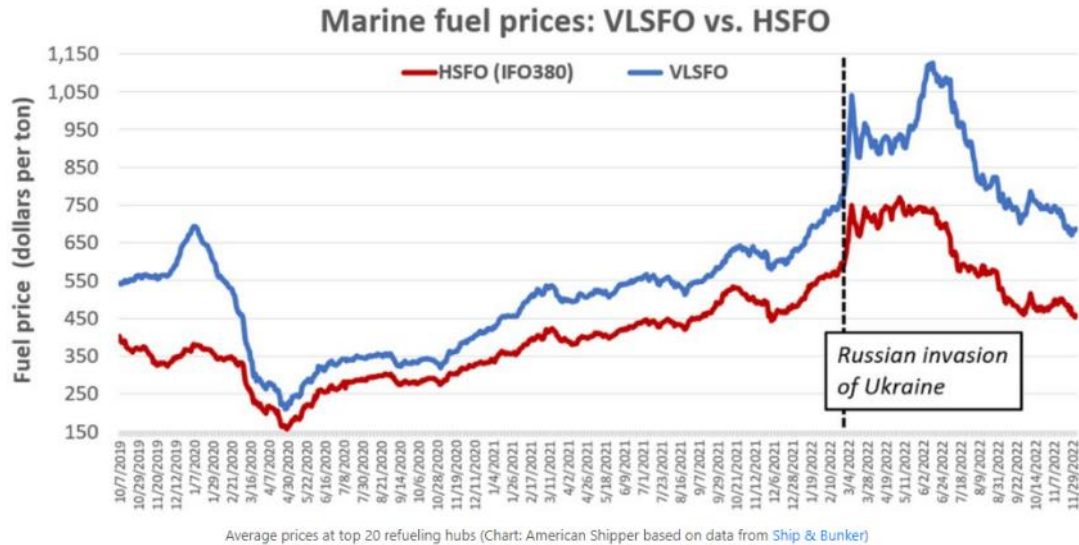
Vessel reliability per tradelane on October:

- Schedule reliability continues to trend upwards, and in October 2022 improved M/M by 6.6 percentage points and reached 52.0%. This was the largest M/M increase in 2022 so far. Schedule reliability in October 2022 is 17.8 percentage points higher Y/Y, bringing it very close to the 2020 level.
- The average delay for LATE vessel arrivals has been dropping consistently since the turn of the year. In October 2022, average delay dropped by another -0.31 days M/M and reached 5.56 days. The October 2022 figure is now closer to 2020 than to the extraordinarily high delay of October 2021, with the improvement from the latter of -1.95 days.



Price of ship fuel falling even as Russia-Ukraine war rages on

The gap between VLSFO and HSFO has a spread for \$228.50 per ton

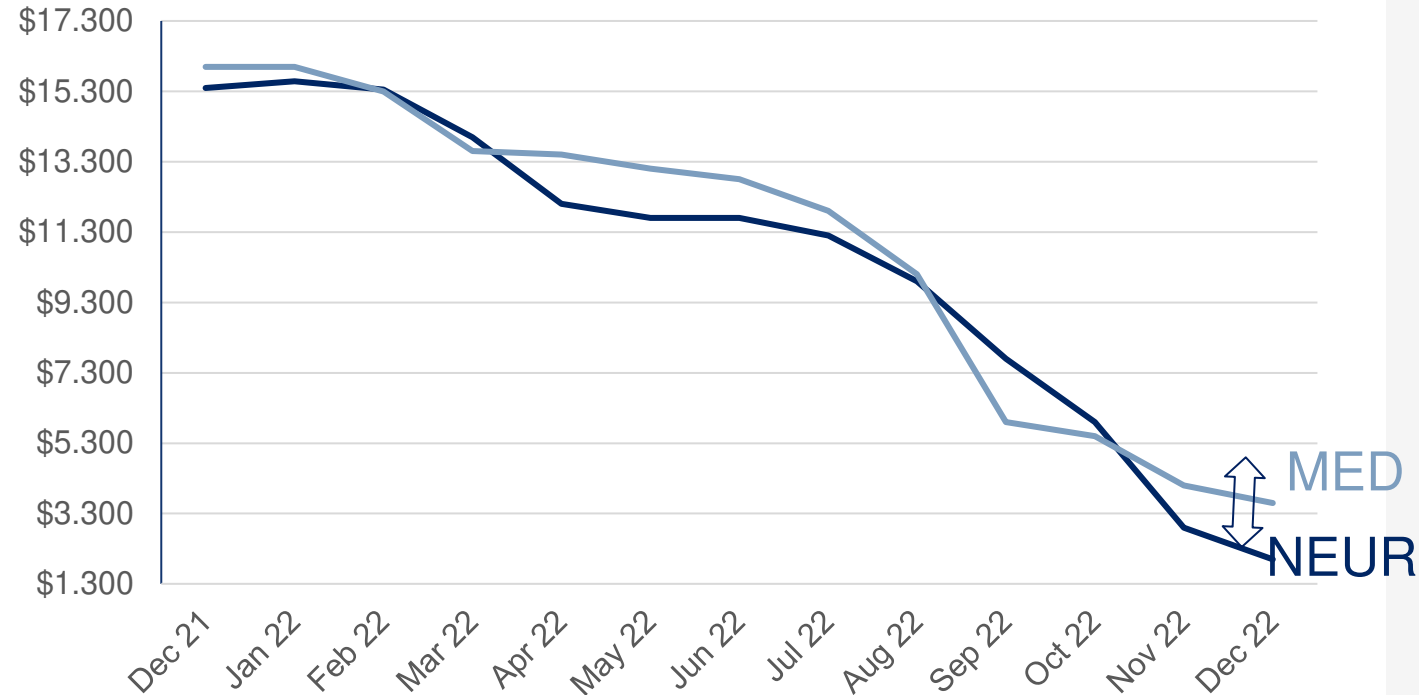


- The average price of high sulphur fuel oil (HSFO) — the fuel burned by ships using exhaust gas scrubbers — was \$457 per ton, down 32% from the high on May 5 and back to levels seen in September 2021.
- The spread between VLSFO and HSFO jumped to over \$300 per ton in January 2020, when the new IMO 2020 regulation went into force. That regulation required ships without scrubbers to switch from HSFO to more expensive VLSFO.
- As oil pricing and refinery utilization picked up in 2021, the spread widened again. When Russia invaded Ukraine, it rocketed to new highs, surpassing the previous peak in January 2020. According to Ship & Bunker data, the average spread at the 20 top refueling hubs hit an all-time high of \$420.50 per ton on July 5. It has fallen back again in recent months. The spread was \$228.50 per ton on Friday. Even so, scrubbers are still paying off handsomely for shipowners..

Ocean Freight Asia - Europe

The price gap between North continent and Mediterranean is getting bigger

SCFI – North Europe WB Rate Index (US\$/40ft)



Source: SCFI Week 49-2022

Alert: To guarantee space and equipment carriers are applying additional surcharges that are not part of the index rate aggregation and they can be a large amount. Carriers have partially stopped accepting bookings for the time being in some origins

Carriers are activating blank sailing programmes and this affects service performance (not being measure on the vessel reliability)

SCFI Levels Week 49-2022:

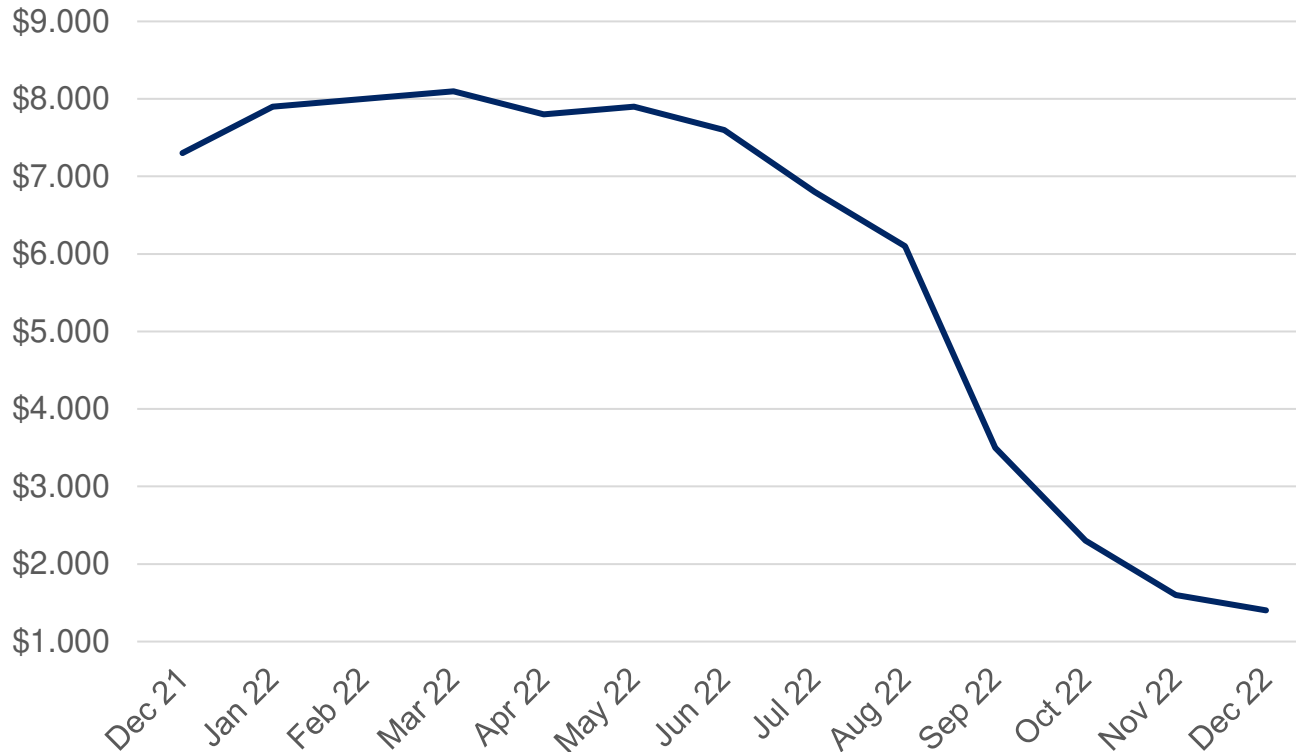
- Shanghai – North Europe: USD 2,094/ FEU
- Shanghai – Mediterranean: USD 3,682/ FEU
- There are ONLY 3 services active from Asia to Mediterranean
- For North Europe carriers are keeping 17 services active and this is why we have a price gap.
- We see congestion easing in North Europe, low demand and volume in general



Ocean Freight Asia - North America

We see a big increase to US East coast, but still a large price gap between West Coast and East Coast,

SCFI Transpacific EB Rate Index (US\$/40ft)



Source: SCFI Week 49 2022

Alert: To guarantee space and equipment carriers are applying additional surcharges that are not part of the index rate aggregation and they can be a large amount. Carriers have partially stopped accepting bookings for the time being in some origins

The market seems to be slowing further and we are seeing some slack to the USWC

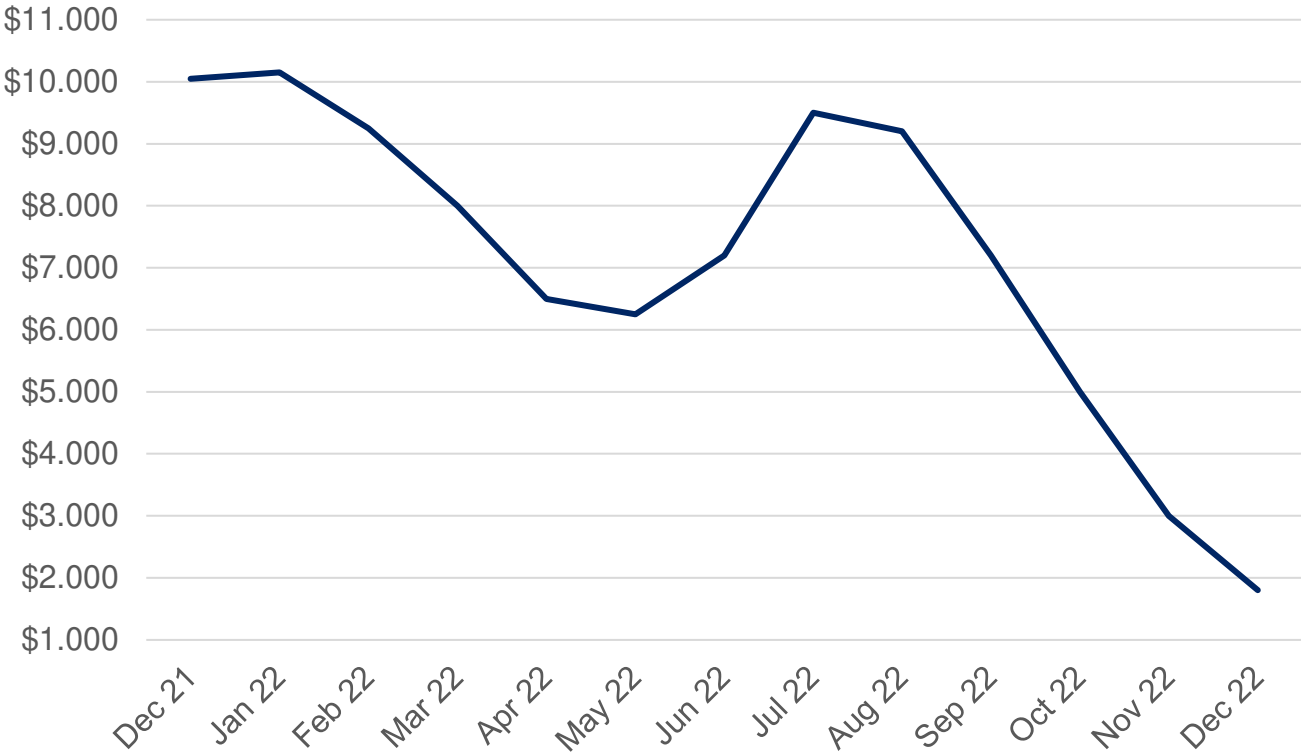
SCFI Levels Week 49-2022:

- Shanghai – US West Coast: USD 1,430/ FEU
- Shanghai – US East Coast: USD 3,290/ FEU
- It seems we have reached the lower price level to West Coast (we have reached pre-covid levels).
- Congestion is easing in the East Coast ports (there are 17 vessels waiting in Savannah)
- Non alliance member carriers are removing their services and we start to see vessel scrapping activities

Ocean Freight Asia – South America (East Coast)

We continue with rate erosion on both West Coast and East coast

SCFI to Santos Brazil (US\$/20ft)



Source: SCFI Week 49-2022

Alert: To guarantee space and equipment carriers are applying additional surcharges that are not part of the index rate aggregation and they can be a large amount. Carriers have partially stopped accepting bookings for the time being in some origins

SCFI Levels Week 49-2022:

- Shanghai – Santos: USD 1,834/ TEU

Open space with different carriers adding new rotations to trade.

WCSA: SUPPLY is higher than DEMAND, ocean rates are on a down-trend.

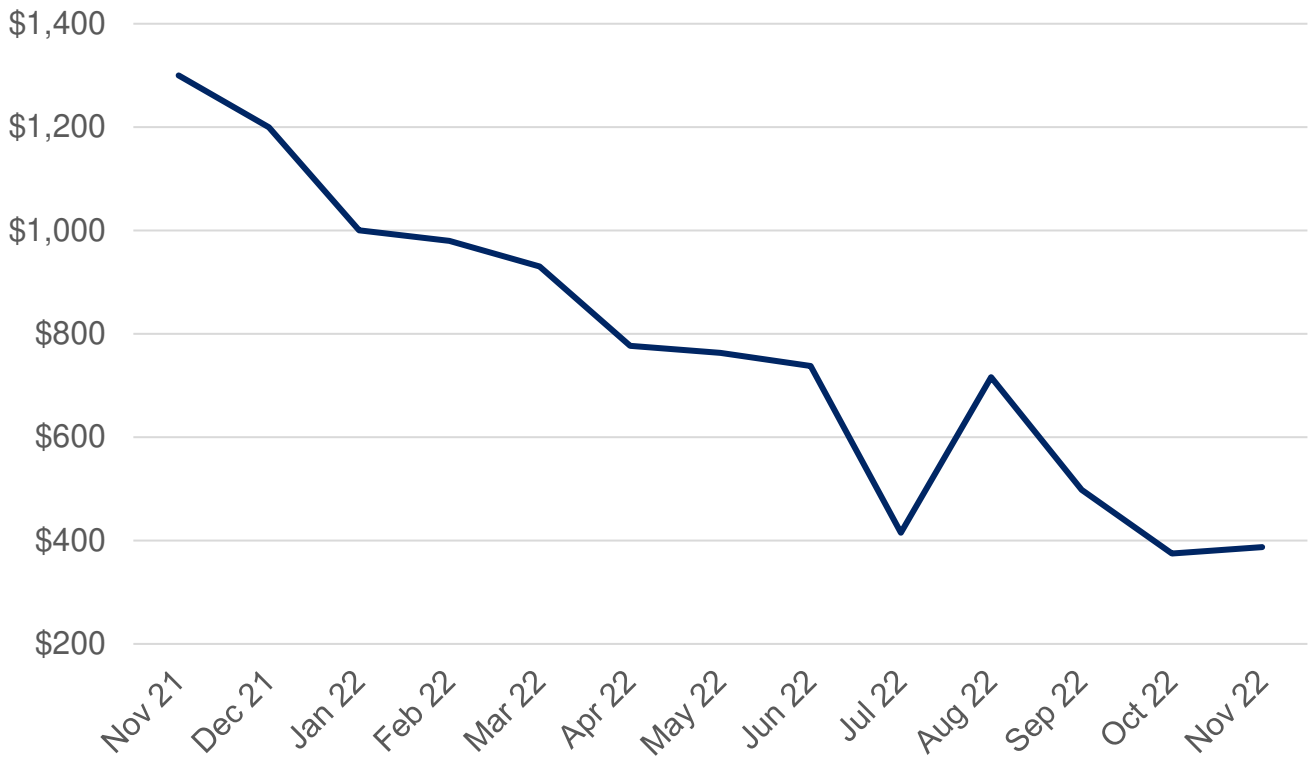
2023 CNY (end of January) to add additional pressure on the demand side during end of Q4 2022.



Ocean Freight Europe – Asia

Pressure on rates while there are heavy issues in ports

Baltic Freightos Europe to Asia (US\$/40ft)



Source: Freightos Baltic Week 49-2022

Alert: To guarantee space and equipment carriers are applying additional surcharges that are not part of the index rate aggregation and they can be a large amount. Carriers have partially stopped accepting bookings for the time being in some origins

Freightos Baltic (FBX12) index Levels 40-2022:

- Europe to ASIA : USD 387/ FEU

Ongoing softening in the spot market

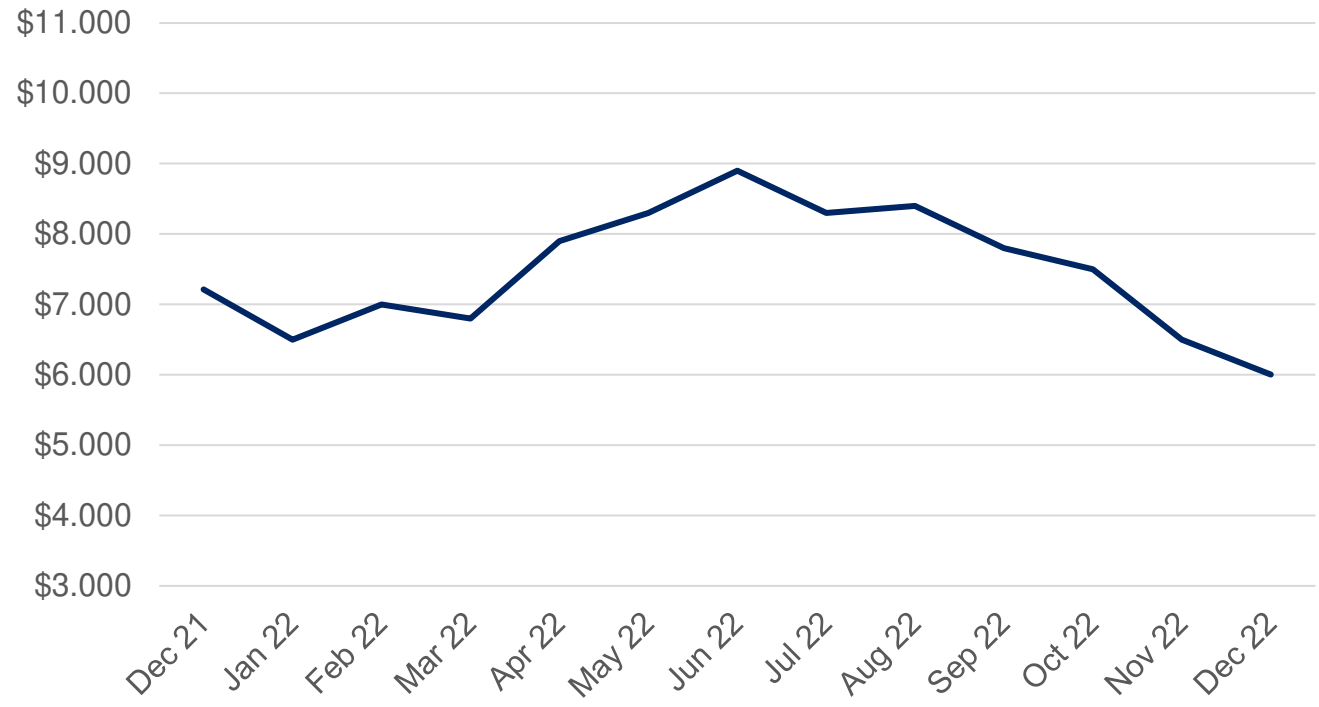
- Space available on the majority of loops
- Ongoing operational challenges due to port congestion, and blank sailing problems
- Carriers are starting to sales across south of Africa instead of Suez in order to reduce capacity (11 days extra of transit time)



Ocean Freight Europe – North America

We see some improvements in congestion in both North American and European ports

Freightos FBX 22 Europe North America (US\$/40ft)



Source: Freightos Baltic W49-2022

Alert: To guarantee space and equipment carriers are applying additional surcharges that are not part of the index rate aggregation and they can be a large amount. Carriers have partially stopped accepting bookings for the time being in some origins

Freightos Baltic index Levels Week 50-2022:

- Rotterdam – New York: USD 6,046/ FEU
- Q4 onwards we expect carriers to adjust tariff costs for inland moves and remain reluctant to offer door deliveries. Fuel prices are expected to stay high on inlands as well as ocean freight.
- 2023 unpredictable but North Atlantic weather conditions may negatively influence schedule reliability and port congestion.
- There is still strong volume and carriers have added extra loaders in the trade

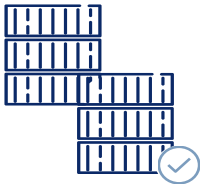


Trade Update

Intra Asia

As per week 49 status, which is evolving and depends on latest updates

Demand



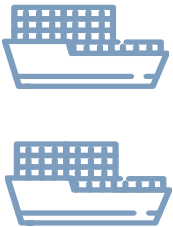
- Lower factory output than expected is leading to less need for capacity in particular China outbound.
- SEA countries export is decreasing, which are leading to open space across all strings and services. Despite the shift of production from China to SEA, the demand is getting weaker.

Rate



- The market slows down and the supply/demand scenario is getting in favour of supply.
- The long term contract level remains high as carriers intend to protect their yields.
- Raw material indexes are decreasing, which implies the effect of an increasing interest rate is calming down the inflation spikes.







Supply



- Capacity reverts to the IA trade as the feeder space is getting less demand from the TP & FEWB movements.
- Continuous or last-minute blank sailings lead to schedule reliability low as the carriers are controlling the supply to stabilize the price fluctuations.
- Congestion in North Asia has edged up with a heavy build up of ships in the Bohai region, with longer waiting time at Qingdao.



Ocean freight market overview – Large rate reductions from Asia

TRADE LANE	COMMENTS	RATES AND SPACE	
ASIA to Europe	<ul style="list-style-type: none"> • Peak season volumes not performing • Space is open from China and there is equipment available • Congestion is easing at the terminals, UK is improving 	↓	
ASIA to NAM	<ul style="list-style-type: none"> • Market is open, it seems we have reached the end of price cuts • Equipment is available • Less problems of congestion in USA, specially in East Coast 	↓	
Europe to NAM	<ul style="list-style-type: none"> • Less congestion in both North American and European ports affects service • Vessel are full and less capacity available • Demand keeps strong in the trade 	→	
Exports from India	<ul style="list-style-type: none"> • Space is open • Shipping lines are opening long term contract rates to negotiate • Ports, terminals and ICD continue to work normally 	↓	
ASIA to LATAM	<ul style="list-style-type: none"> • Booking needs to be placed one month in advance • ASIA to LATAM due to longer transit times needs to offset with higher rates • Rates are stable 	↓	
INTRA ASIA	<ul style="list-style-type: none"> • Port congestion improving in some south Asian ports • New bunker level. Australian ports are still congested but improving • Overstock of container equipment 	↓	






Project cargo update

DSV

Pack & Ship

DSV

Global Chartering

TRADE LANE	COMMENTS	PRICE 2022
Asia - NCE	<ul style="list-style-type: none">The market continue to decrease, Still higher that pre-COVID-19 rates	
Shortsea – (Europe)	<ul style="list-style-type: none">The market has started to decrease.	
Asia - VAME	<ul style="list-style-type: none">The wind- and container demand for MPP vessels have decreased, and rates decreased	
Asia – LATAM	<ul style="list-style-type: none">The rates are stable, but we predict that rates will start to decrease on this trading lane as well.	
Intra Asia	<ul style="list-style-type: none">The intra Asia market is similar like the deep sea market which continue to decrease.	

“The worldwide MPP freight rates are decreasing due to lack of large volume cargoes.” Sune Thorleifsson

Airfreight update



DSV

What to expect for 2023



Less Demand:

- Retail and inventory levels will not balance out until H2-2023
- Early Chinese new year (22-Jan) – Domestic flights open again
- No more Ocean to Airfreight conversion

Future events

- Geopolitical tensions over Russia and China, will continue to push Europe to USA trade
- Production shift to Southeast Asia and near shoring will cause issues in the supply chain and more demand for Airfreight
- Investments plan in semiconductors will drive Air Freight in some specific trade lanes (USA, China and Europe are working to build up a local industry)

Demand will be down in H1-23 where there will be shifts in production and growth in some specific industry verticals. Expectations of demand picking up in **H2-23 with around 2%-3% growth**

Balance of Capacity between PAX and Freighters

Passenger airlines starting 2023 strong

- High passenger demand going on to H1-2023 following the Covid re-opening and expected as well in China
- Strong passenger loads and increasing networks, this will improve more airport to airport direct

Freighters oversupply

- Market saturated after Covid
- New factory freighters and PAX-to-Freighter conversions entering the market
- Integrators scaling back network (FedEx cancelled grounded flights as e-commerce demand is reduced)

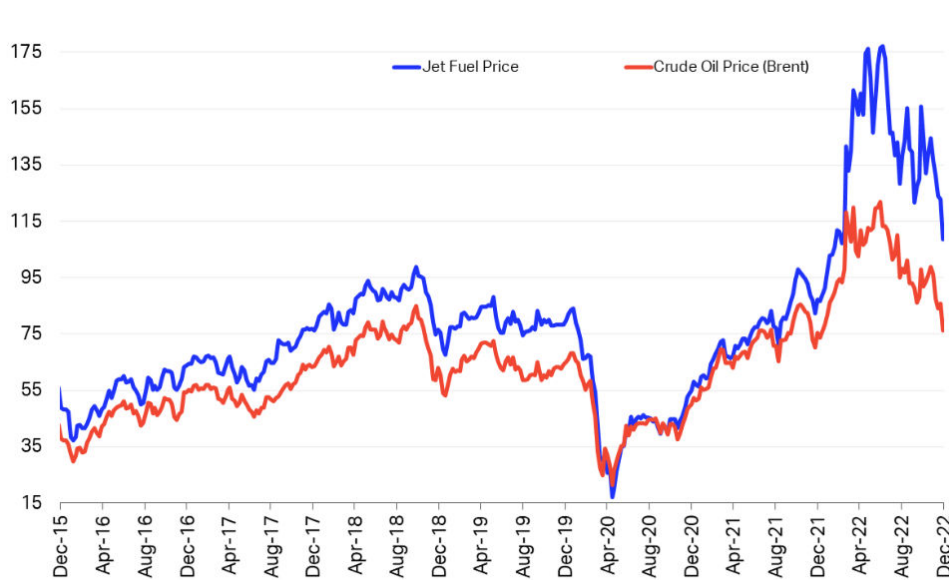
With revenue dropping and high operation cost, freighter airlines are in difficult position. If demand is slow, **freighter capacity** will be removed until demand & supply is balanced



Fuel cost

Jet fuel price developments - longer term perspective

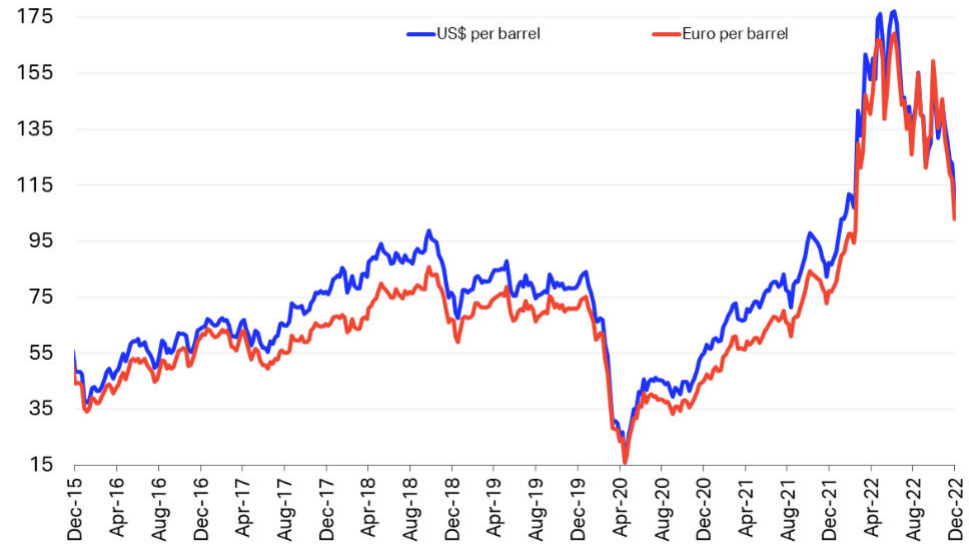
Jet Fuel & Crude Oil Price (\$/barrel)



Source: S&P Global, Refinitiv Eikon

Jet fuel price developments - impact of Euro/US\$ exchange rate movements

Jet Fuel Price Currency Comparison



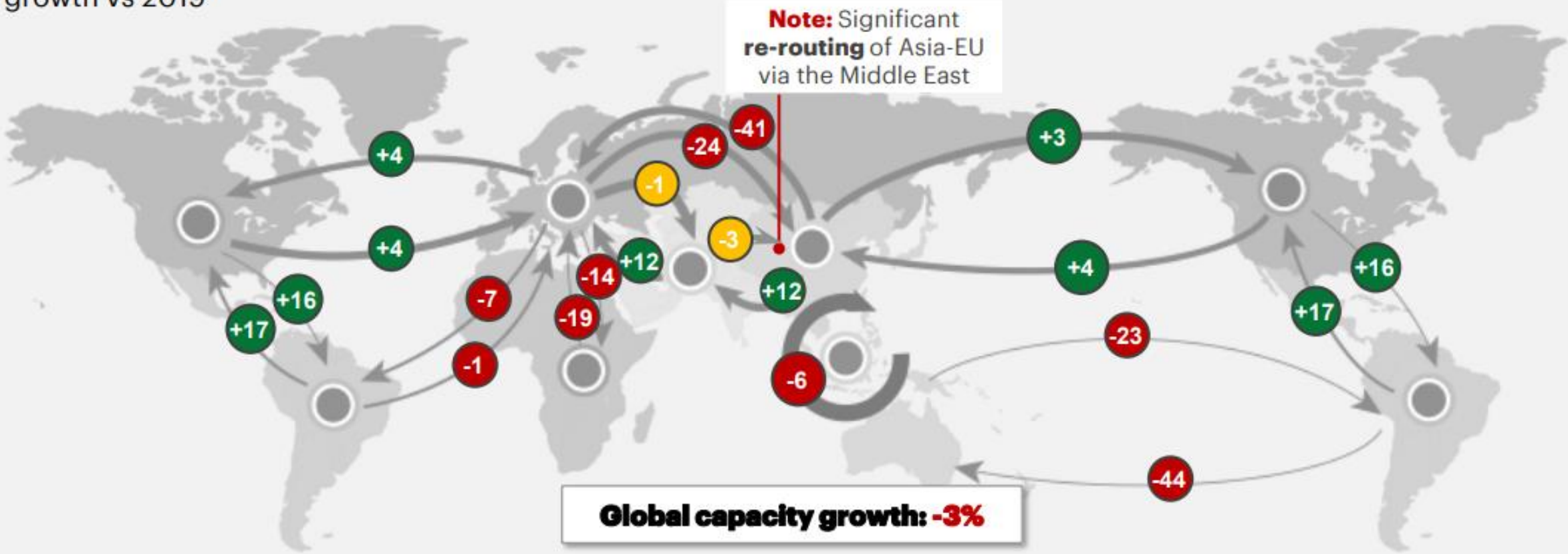
Source: S&P Global, Refinitiv Eikon

- High volatility in fuel price
- **Russian sanctions** on Crude Oil on Dec 5th 2022 and **refined petroleum products from Feb 5th 2023 will drive jet fuel prices up**
- **Cost to refine Jet Fuel “crack spread” have gone up**, due to a global reliance on Russian, European and US refineries and this will have a problem of availability in different global airports (this might not follow the price of oil)
- Increase on labour and operation cost

Global international air cargo capacity was down -3% (vs. 2019) between November 21 and December 4, 2022

Total international air cargo capacity growth, November 21-December 4 2022 vs same weeks in 2019¹

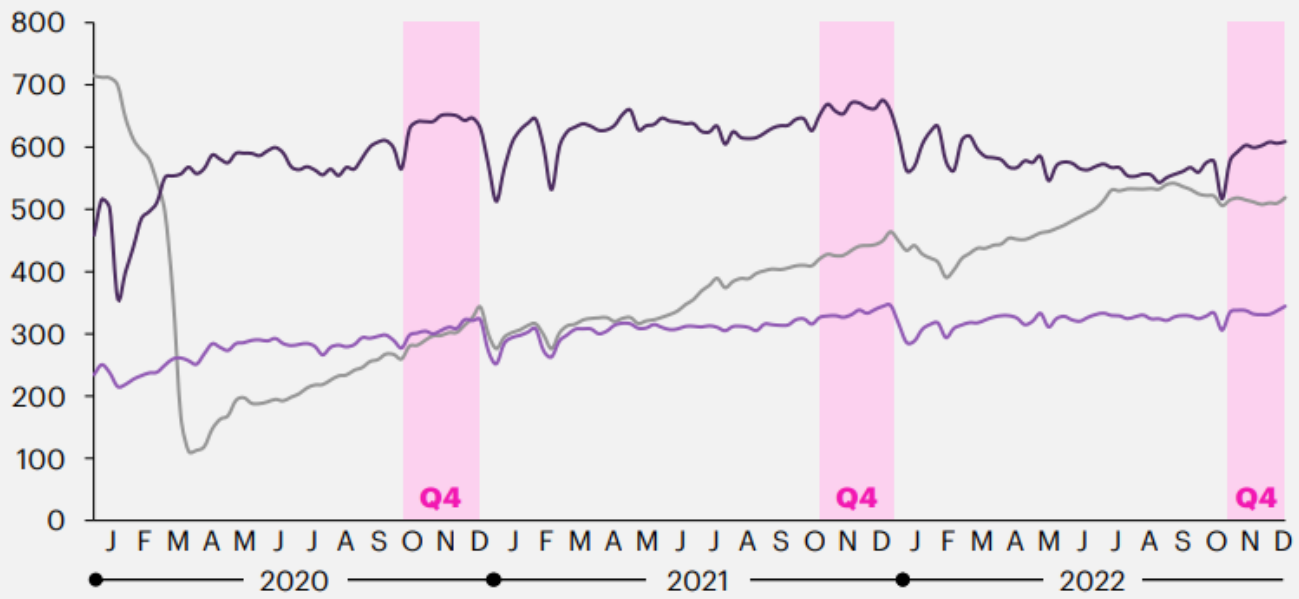
% growth vs 2019



Global air cargo capacity increased +1% in last two weeks, mostly driven by integrator activity during the Q4 peak

International air cargo capacity, Jan 2020 – Dec 2022

Thousand tonnes per week



	vs. 2019 ¹	vs. previous two weeks ²
Total capacity	-3%	+1%
Airline freighters	+7%	0%
Passenger belly <small>Widebody aircraft only</small>	-25%	+1%
Integrator freighters	+31%	+3%

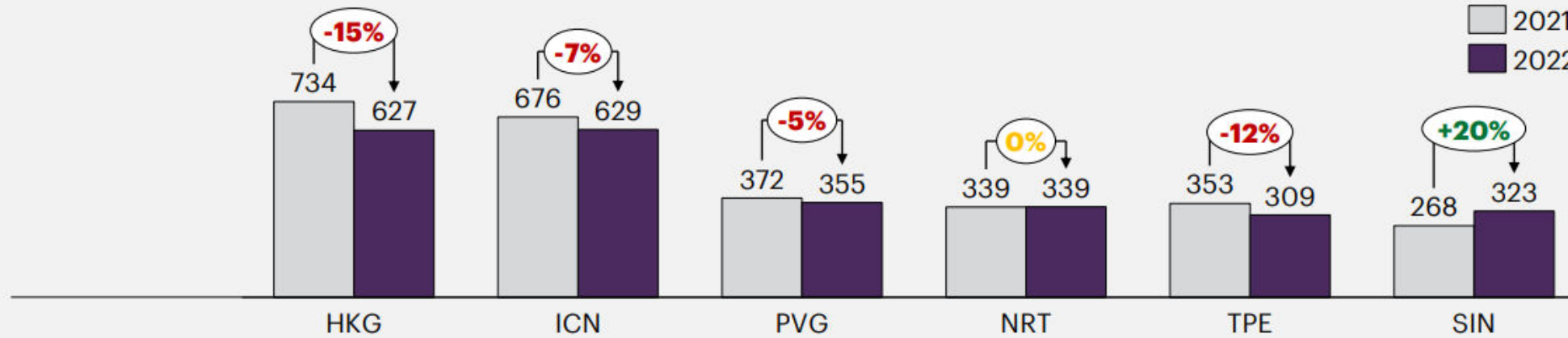
Transatlantic air cargo capacity now exceeds pre-COVID levels by +4%

Airline freighters show a limited Q4 capacity increase, compared to previous years

Air cargo capacity out of major APAC airports supports industry consensus that Q4 2022 demand is down on 2021

International air cargo capacity out of key Asia Pacific airports, Q4 2021 vs. 2022 Q4^{1,2}

Thousand tonnes



Change in air cargo capacity

	HKG	ICN	PVG	NRT	TPE	SIN
Widebody pax (%):	-27%	+9%	-24%	-1%	-2%	+56%
Freighters(%):	-12%	-10%	0%	0%	-17%	-2%

Key APAC hubs show flat or lower freighter air cargo capacity in Q4 2022, in comparison to Q4 2021

As the last Boeing 747 ever leaves the factory, B747 freighters account for over 25% of global air cargo capacity

Final Boeing 747 Airplane Leaves Everett Factory

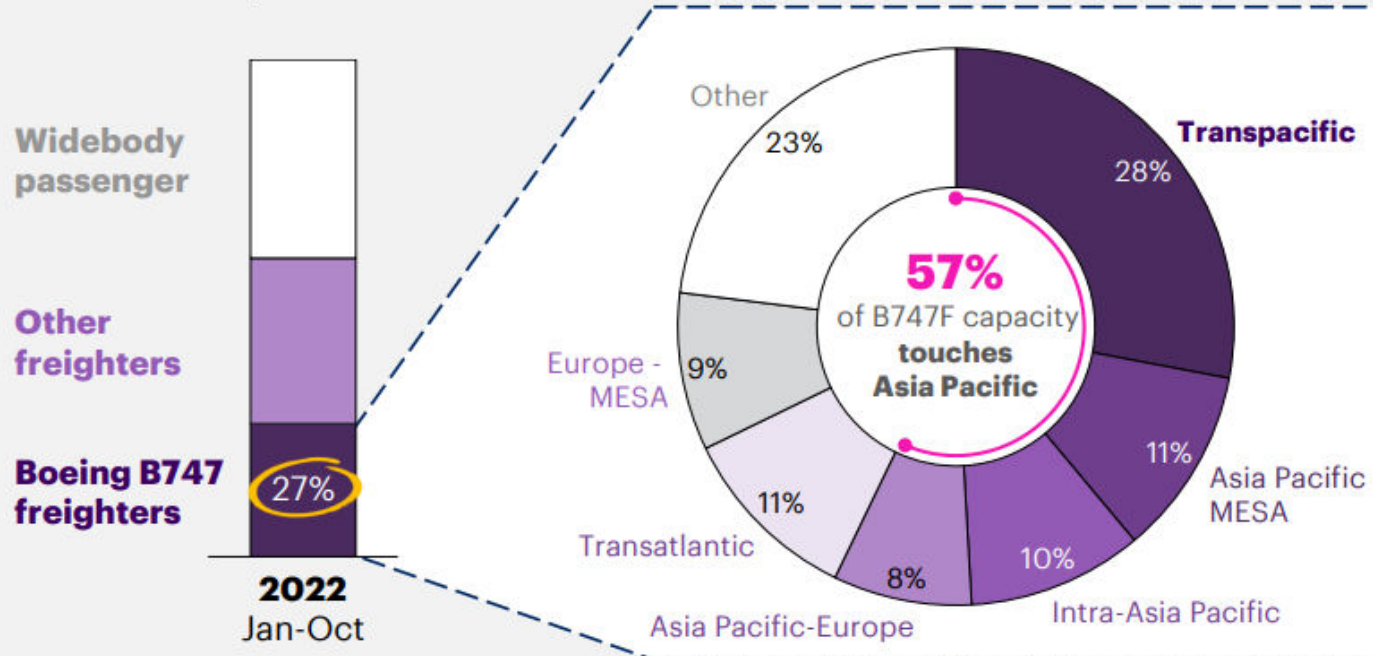
Dec 7, 2022



"The final 747-8 freighter will be delivered to Atlas Air in early 2023"

B747F share of international capacity and trade lane split, Jan-Oct 2022





Share of ATKs (trade lanes are bi-directional)



B747 freighters mainly serve key Asia Pacific hubs, connecting these to North America

Air freight market overview

We see increasing demand to North America from peak season

TRADE LANE	COMMENTS	RATES AND SPACE	
Exports from China / Hong Kong	<ul style="list-style-type: none"> USA demand in the market is on the rise, and that trend is expected to continue through the Christmas holiday. Rates have also increased compared to the week prior. European demand and rates remain stable.. 	→	
South East Asia	<ul style="list-style-type: none"> The overall export markets in Southeast Asia continue to be soft. There is a trend of volumes switching back to ocean freight as reliability and rates stabilize, with clients opting to use air freight for more urgent requests. 	→	
Exports from India/Bangladesh	<ul style="list-style-type: none"> This has led to carriers passing on rate deductions for many key lanes Capacity is waiting to recover 	→	
Export from Europe	<ul style="list-style-type: none"> Demand out of Europe has picked up slightly, with spikes into main North American hubs.. Terminal congestion in Amsterdam (AMS) and London Heathrow (LHR) due to staff shortages, strikes, and software issues are expected to cause delays.. 	↓	
Exports from NAM	<ul style="list-style-type: none"> US airports are running at a normal pace. Capacity is opening up further, especially into Europe, Rates remain stable week over week. 	↓	