

WEBINAR ON ECONOMIC & SUPPLY CHAIN IMPACTS OF COVID-19

March 25 from 8:30 – 10:30 am





COVID-19 and Impacts to Supply Chain Management

Edward DeMartini
VP, Head of Airfreight Business Development – North America

The Health and Personal Care Logistics Conference
March 25, 2020

Agenda

1. COVID-19 Latest & Economic Impact
2. Airfreight COVID-19 Impact
3. Seafreight COVID-19 Impact
4. Overland COVID-19 Impact
5. Oil & Carrier Fuel Development
6. Where Do We Go From Here...





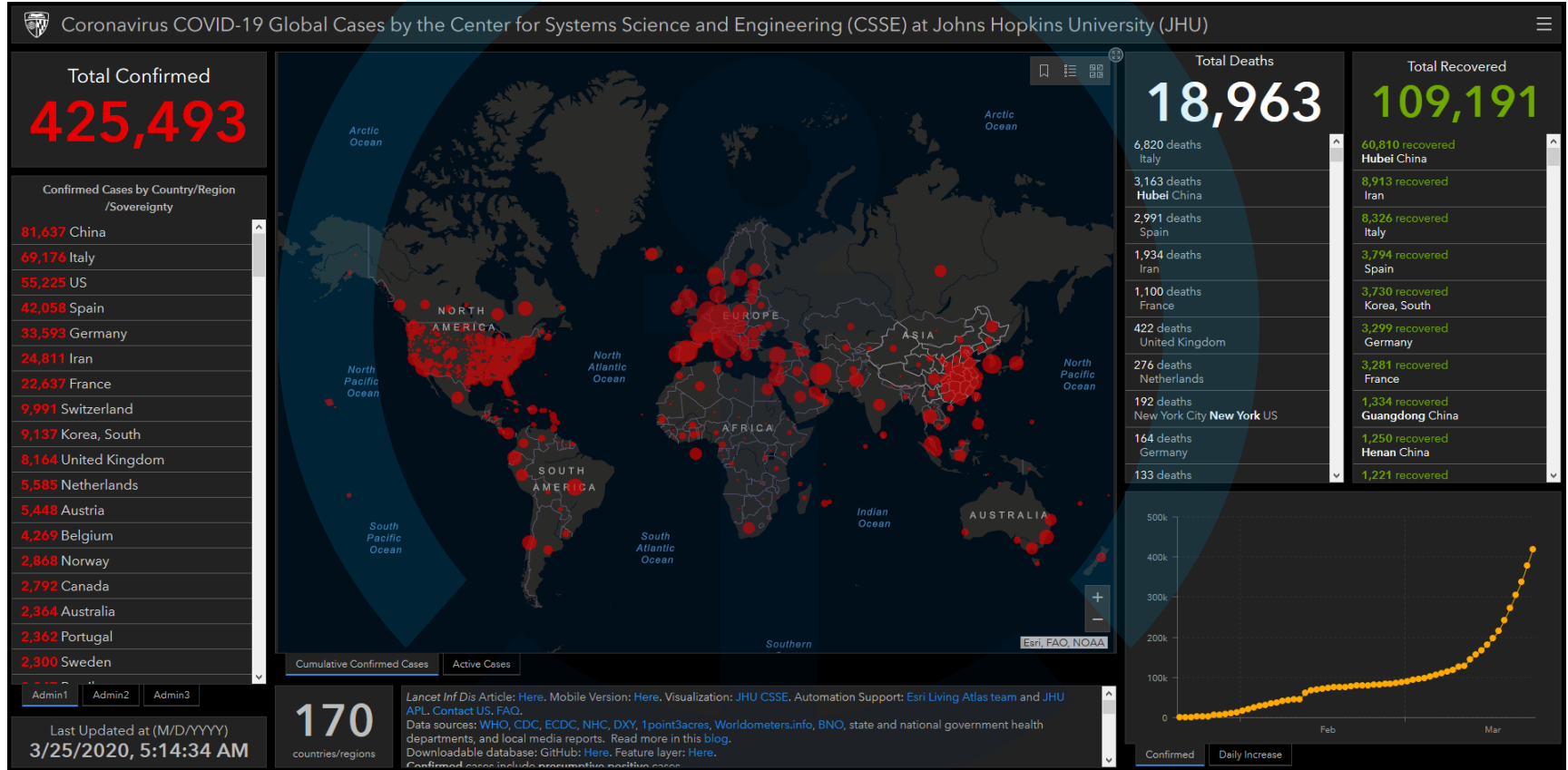
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*COVID-19 Latest
& Economic
Impact*



COVID-19 Outbreak

Global cases confirmed by country





Government Enacted Restrictions

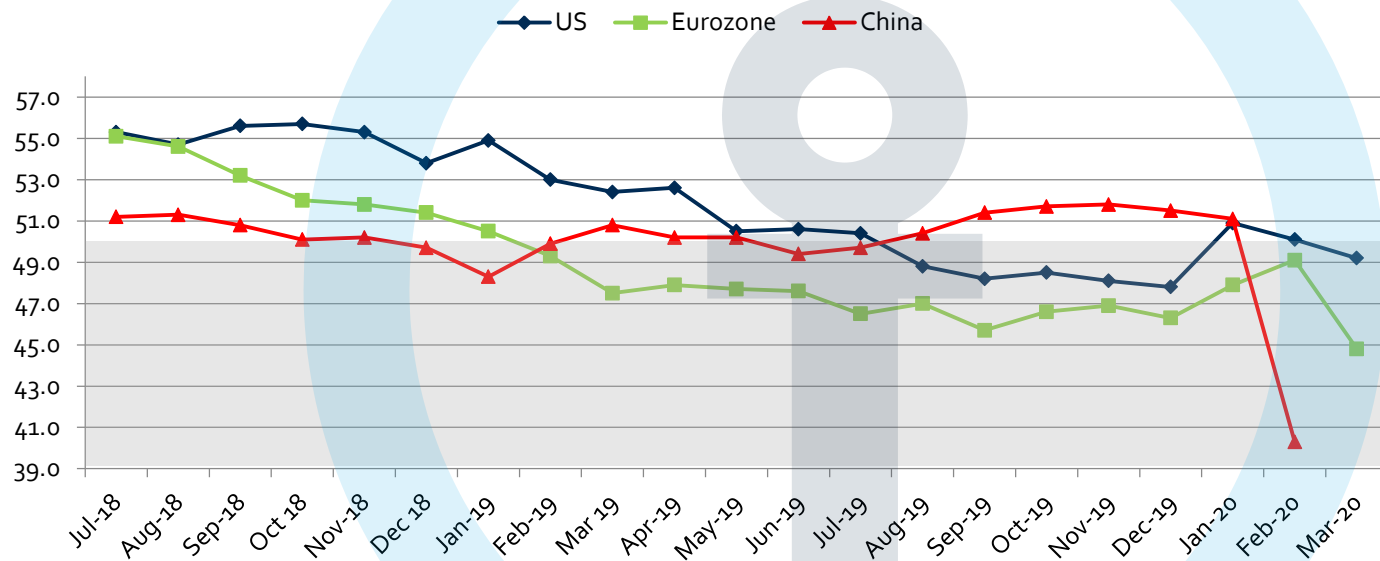
- The European Commission proposed an unprecedented **30-day restriction on nonessential travel to the EU**.
- The U.S. has imposed **travel bans on foreigners coming from Europe, the U.K. and Ireland**.
- France, Greece, Italy, Spain, UK and Netherlands have all imposed **nationwide sheltering**. Germany **partially shut its borders**
- CA, IL, NY & NJ ordered **residents to stay home** while ports of Seattle & Miami closed & Houston shut down for a day
- Canada has **closed its borders to most nonresidents**, though trade is exempted
- Brazil, Argentina & Chile **closed their borders** and Colombia quarantine till 4/13. Peru & Ecuador banning all PAX flights.. Customs delays starting
- Australia & New Zealand imposing new lockdowns and school closures with IN **shutting down to April 21st**



US, Eurozone, China Purchasing Managers' Index (PMI)



Continued drops and stagnation plague the major economies



| Country | PMI |
|----------|--------|
| US | 49.2 ↓ |
| Eurozone | 44.8 ↓ |
| China | 40.3 ↓ |



2

Airfreight
COVID-19
Impact



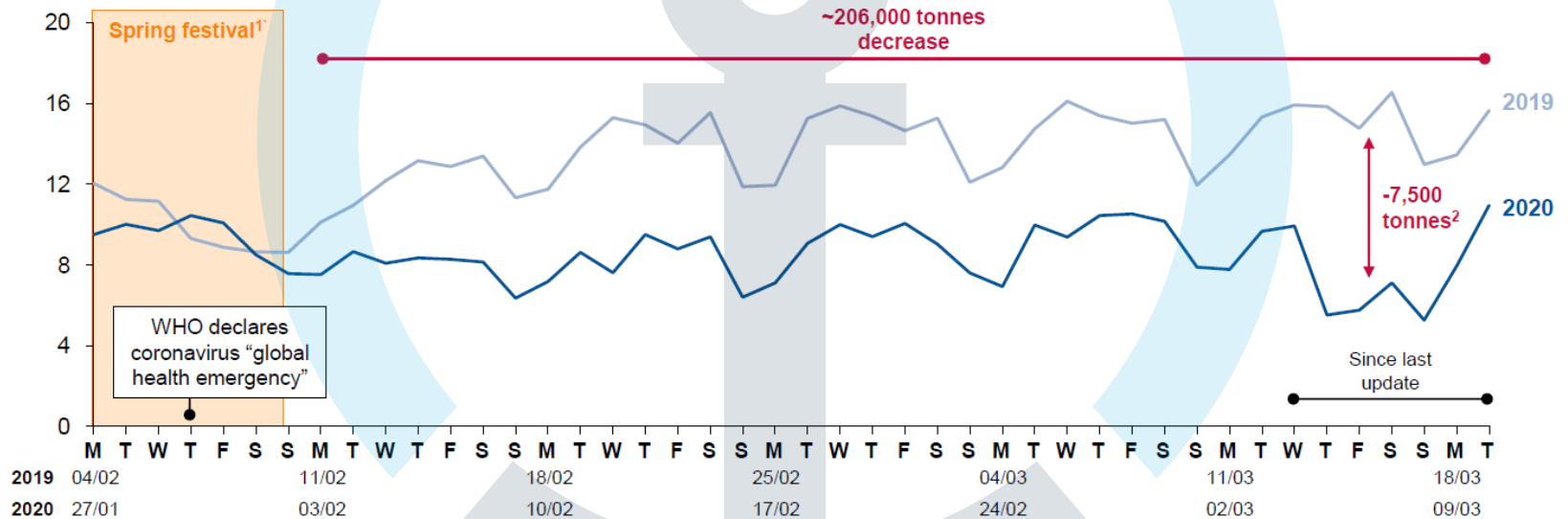
Cargo Capacity Reductions Since COVID-19 Outbreak



Flight cancellations are removing more than 7,500 tons of capacity per day on average and overall cargo capacity is -50% compared to 2019

Daily international cargo capacity out of mainland China, 2019 vs. 2020

Thousand tonnes





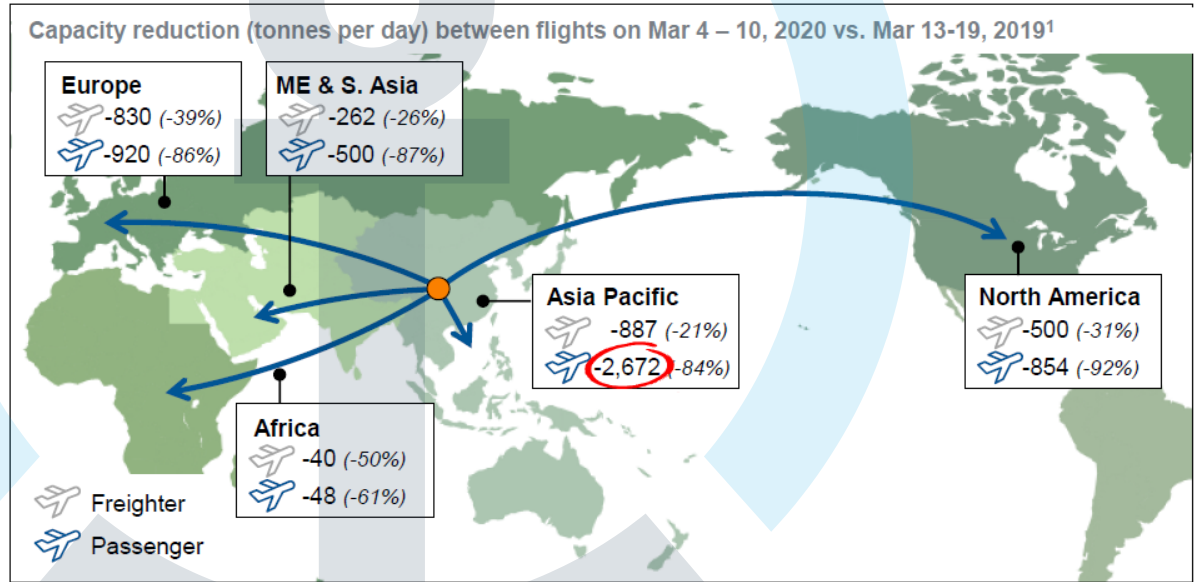
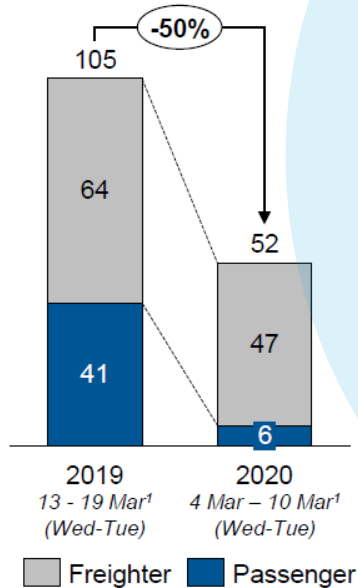
Mainland China Outbound International Capacity YoY



Belly capacity from mainland China to the rest of Asia shows the largest absolute decrease

Mainland China outbound international capacity comparison, 2020 vs. 2019

Thousand tonnes



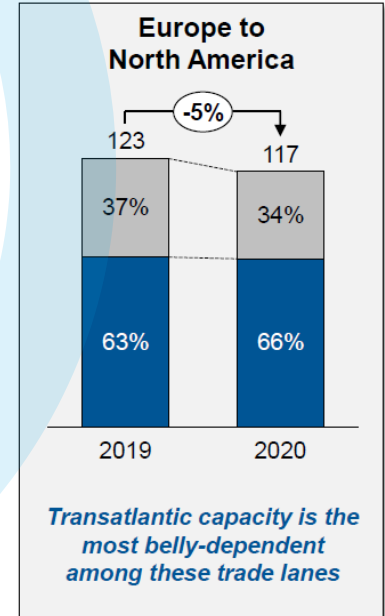
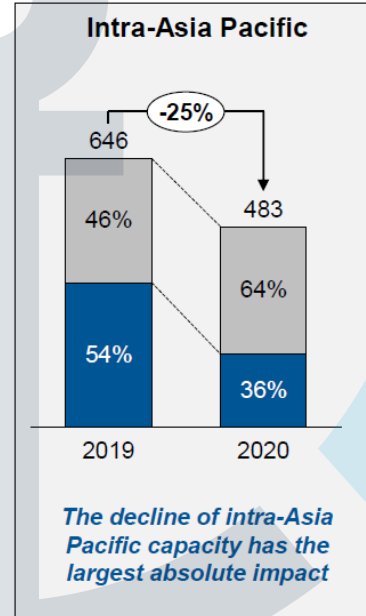
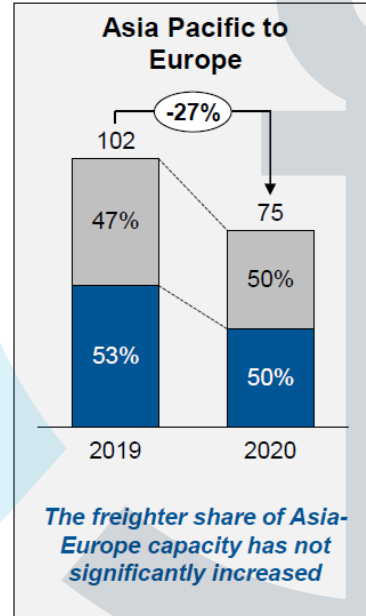
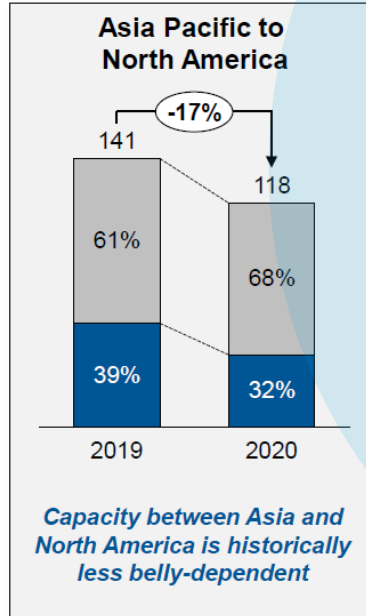
Decline in Asia Pacific Foreshadowing to Transatlantic

Capacity on Transatlantic remained relatively unaffected so far, however, travel restriction for passengers will lead to wide belly capacity declines



Inter-regional capacity comparison, 26 Feb - 10 Mar 2020 vs 6 – 19 March 2019¹
Thousand tonnes

Freighter
Passenger





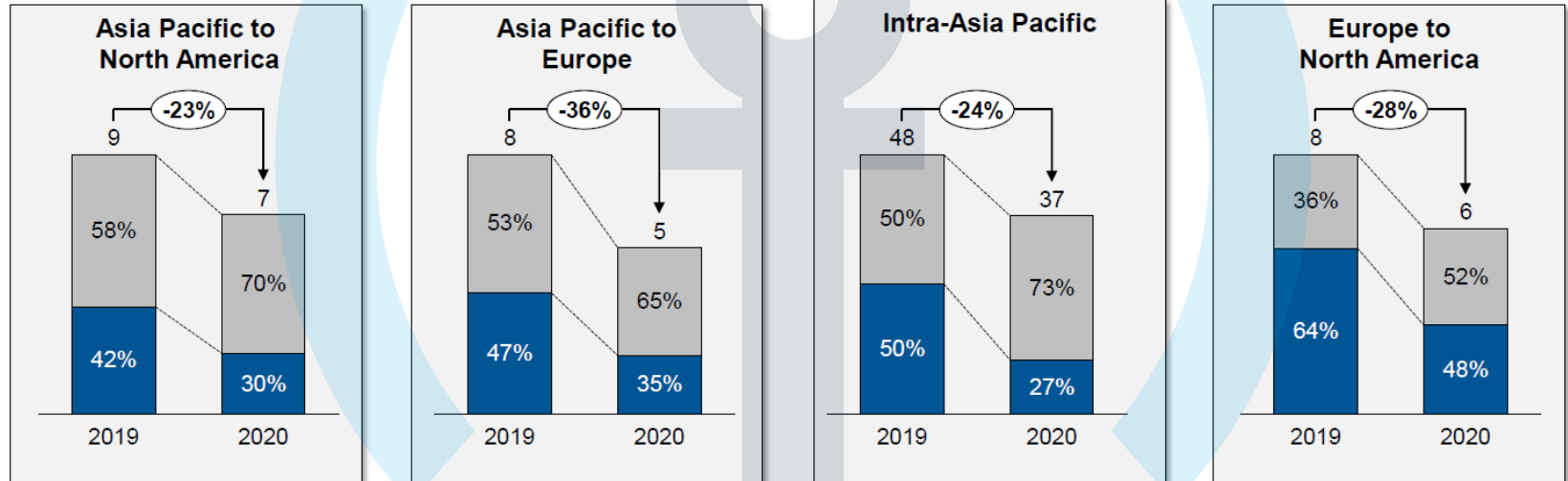
Transatlantic Belly Cargo Capacity Heavily Impacted



First days of US travel restrictions, the decline in Transatlantic capacity is comparable to most Asian trade lanes and will decline further

Inter-regional capacity comparison, Tuesday Mar 17, 2020 vs Tuesday March 19, 2019¹
Thousand tonnes

Freighter
Passenger



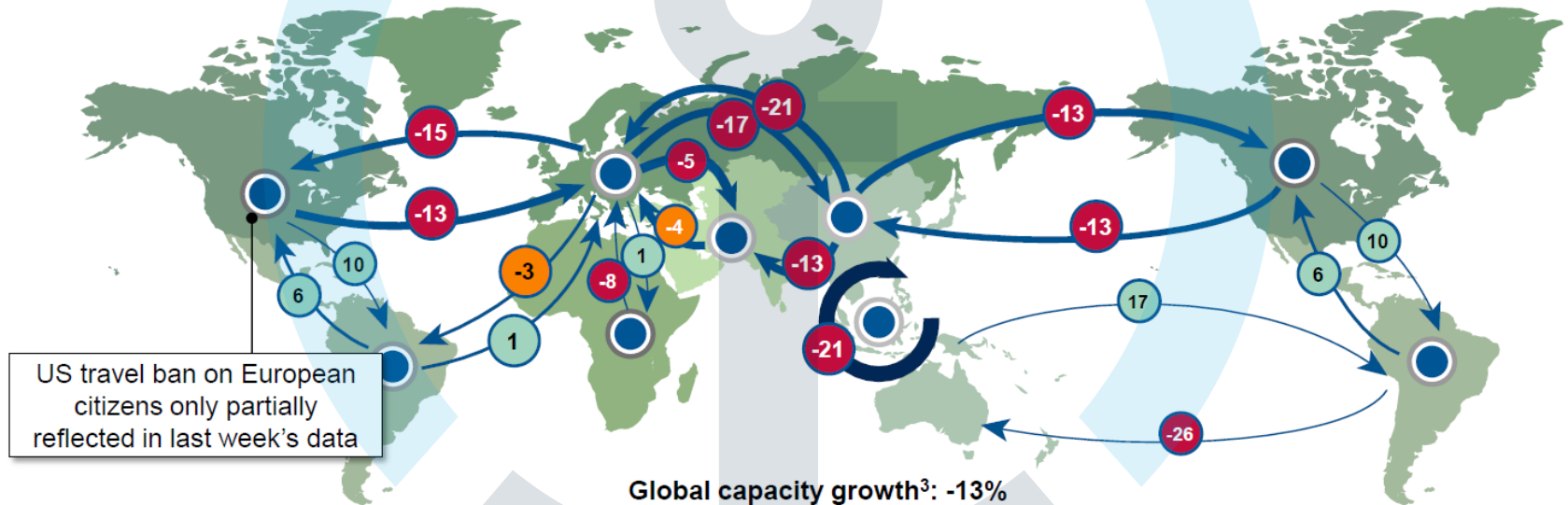


Cargo Capacity Reductions March 11-17 YoY

Global capacity is already 13% lower than last year, and will decline further



Total cargo capacity growth¹, 11 - 17 Mar 2020 vs. same week last year²
YoY growth, %





3

*Sea*freight
COVID-19
Impact



Effects due to Coronavirus

- Carriers reacted to the situation with additional void sailings on top of the CNY blank sailings. The knock-on effect of the *blanked sailings from China has caused a major problem for European exporters* in terms of capacity and equipment shortage.
- As China returns to work, ocean carriers are preparing for a return of fully-booked ships – expecting a slow March & *strong April with freight rates expected to spike* in response to the space shortages on both head haul and back haul voyages.
- Shanghai Yangshan port is *nearing 95% of pre-COVID-19 volume*. Non-Chinese ports have not yet reported falling throughput volumes but this may change.
- The prolonged container turnaround time resulting from *bottlenecks at main Chinese ports will adversely impact the availability of equipment* within the network.

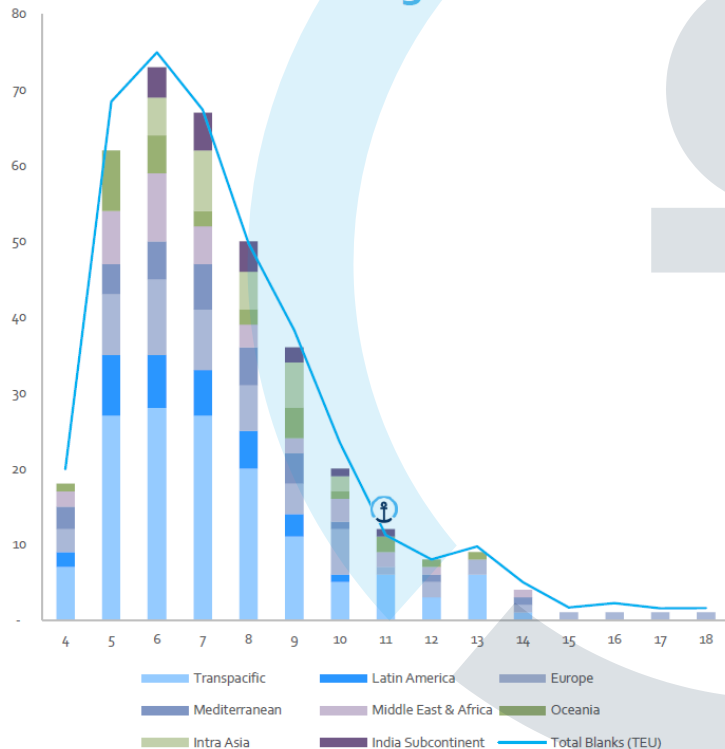




COVID-19 Carrier Blank Sailings



Inactive fleet capacity reached 2.04 million TEU's and surpassed the 1.52 million TEU's recorded during 2009 crisis



Week 4 – 18

| Trade | THE Alliance | Ocean Alliance | 2M | Others | # of Blank Voy. | TEUs of Blank Voy. |
|--------------|--------------|----------------|-----------|-----------|-----------------|--------------------|
| TP | 29 | 84 | 28 | - | 141 | 1,289,650 |
| LATAM | 6 | 15 | 8 | 3 | 32 | 250,600 |
| EUR | 15 | 25 | 15 | - | 55 | 879,930 |
| MED | 8 | 14 | 8 | - | 30 | 380,499 |
| MEA | 4 | 18 | 11 | 2 | 35 | 253,568 |
| OCE | - | - | - | 27 | 27 | 119,215 |
| IA | - | 16 | 10 | - | 26 | 71,460 |
| ISC | 4 | 2 | 6 | 5 | 17 | 106,304 |
| Total | 66 | 174 | 86 | 37 | 363 | 3,351,226 |

Updated as of 9 Mar 2020



Blank Sailings Have Impacted Container Offloading

One measure of when China's economy is returning to normal is when the number of container ships anchored off its ports starts to fall.





COVID-19 Effects on Reefer Containers

- Reefer *equipment shortage in Europe* due to high global demand and also with equipment stuck in China due to COVID-19 impact
- Carriers had temporarily declared force major for not being able offload Reefer containers in Chinese ports. Meanwhile Reefer plug congestion has cleared and Reefers are accepted again.
- PSS & Container Imbalance surcharges on Europe – Far & Middle East (*up to USD 3000 per Reefer container*)
- MSC announced April reefer imbalance surcharge now from Europe to US, CA & MX in addition to other PSS
- Further Blank Sailings = disrupted schedules, capacity issues and delay and empty positioning
- Huge increase on base rates of expired contracts





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*Overland
COVID-19
Impact*



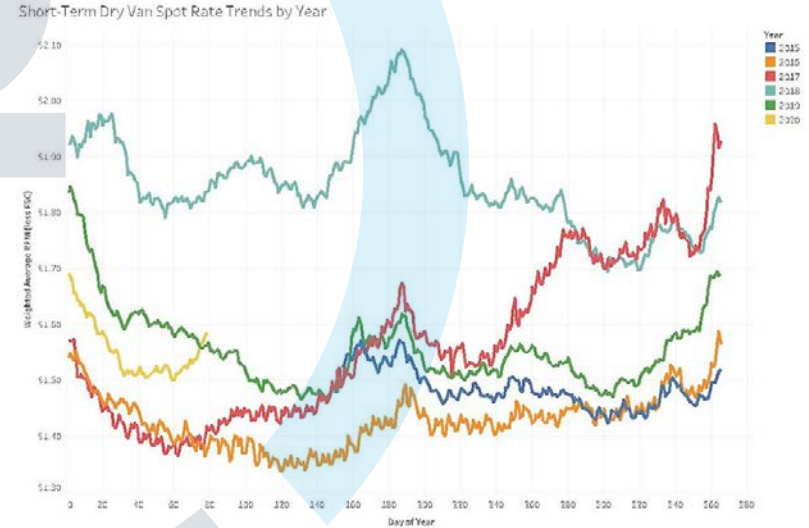
North America Overland Market



Freight markets are currently dealing with two high-level issues related to COVID-19: the impact of imports and domestic replenishment.

Latest Market Situation

- US & Mexico *restrict border crossings as of March 21st* except for trade & workers
- Similar *restrictions on the US & CA border* implemented as of March 18th
- US DoT issued an *emergency declaration waiver for hours of service* related to medical and essential deliveries
- General *capacity is tightening* with spot market truckload rates on the rise. Since end of Feb., rates have been on a sharp climb, *rising over 5% as of mid-March with Rates eclipsing 2019 levels.*





European Overland Market

Border sanitation checks are conducted in many European countries causing congestion & delays for all shipments passing these borders.



Details

Czech Republic has *blocked the towns of Uničov, Litovel, Červenka* in the postal codes zone CZ-78

France domestic LTL *capacity being reduced* strongly & deliveries delayed due to prioritization

Italy & Spain FTL & LTL *shipments becoming extremely difficult* with spot pricing over contract rates & *potential closure in Italy* on Mar 27th

Bulgaria seeing *shortage of drivers* due to quarantine

Poland carriers have *reduced capacity by 15-25%*



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*Oil & Airline Fuel
Development*



Oil Prices Have Fallen as Demand Has Slowed

Brent crude oil prices – 10 year daily chart





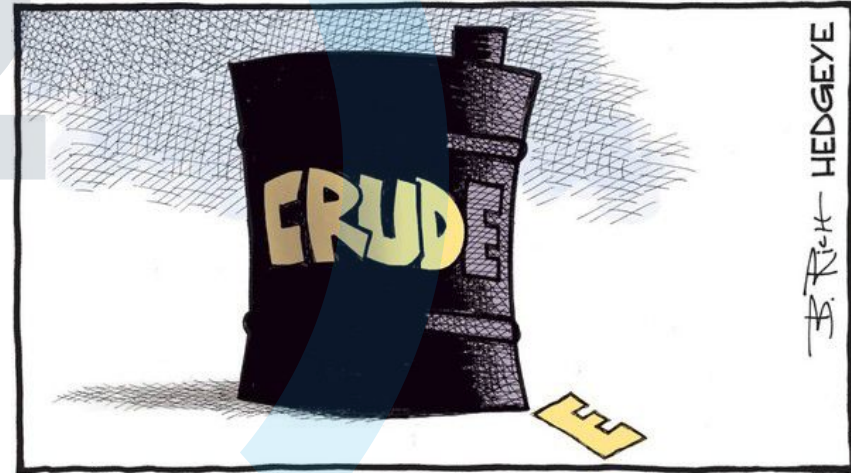
OPEC, R.I.P.

Saudi Arabia and Russia intensified an oil-market war as China demand is hurt after refineries and factories were forced to shut due to COVID-19



Latest Market Situation

- Saudi Arabian Oil Co. said it would *boost production to 12.3 million barrels a day* in April...300,000 barrels a day over the maximum sustained capacity.
- Russian Energy Minister Alexander Novak said *Russia could rapidly open its own taps*.
- The combination of declining global consumption and rising supply pushed Brent crude to its *sharpest decline since the first Gulf War in 1991* on March 9th.





Follow The Money...

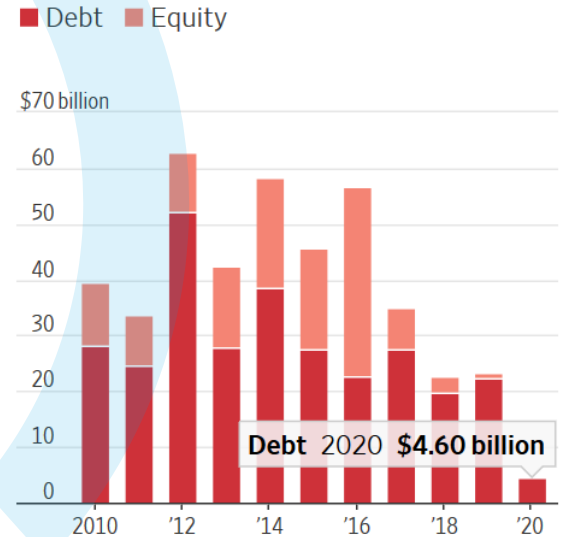
Fiscal break-even oil prices OPEC+ & US Shale-company indebtedness



- Oil prices are well below levels many OPEC and allied nations need to balance their budgets... *RU \$53, IR \$72, SA \$88* and VE \$216

- Shale companies facing debt defaults will cut back on drilling & slash jobs; that might not be enough for many to avoid bankruptcy. *"Probably 50% of the public E&Ps will go bankrupt over the next two years."*

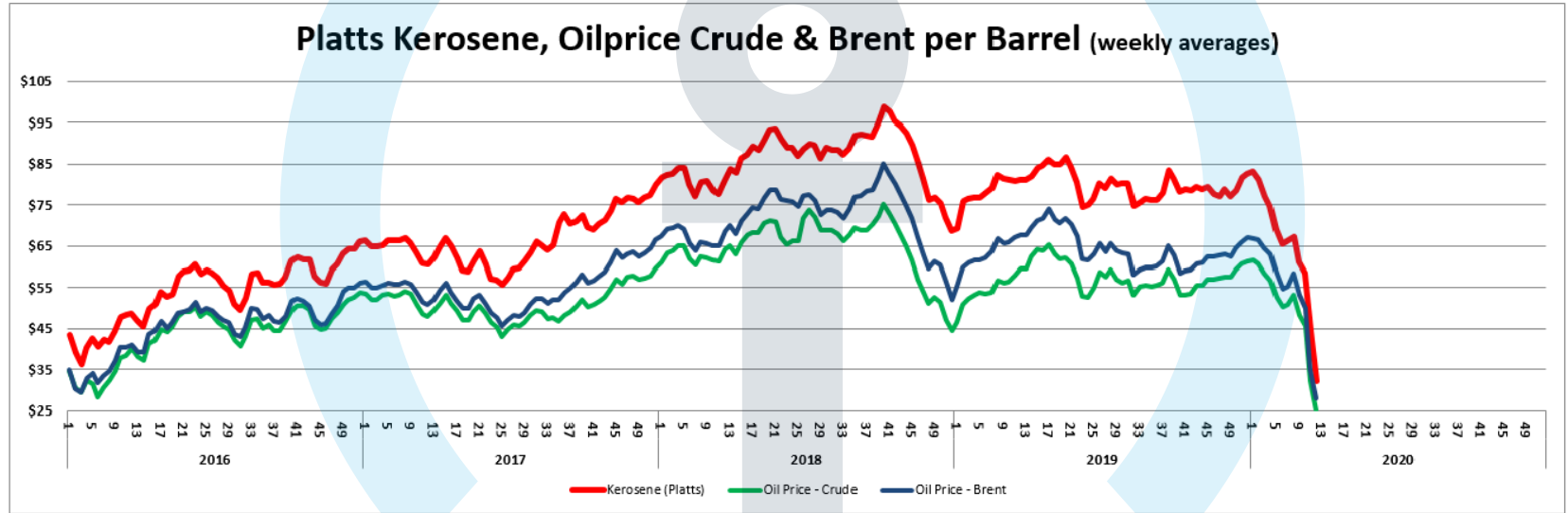
U.S. oil-and-gas producers debt and equity issuance





Kerosene, WTI & Brent Historical Prices

Four year historical prices and trends

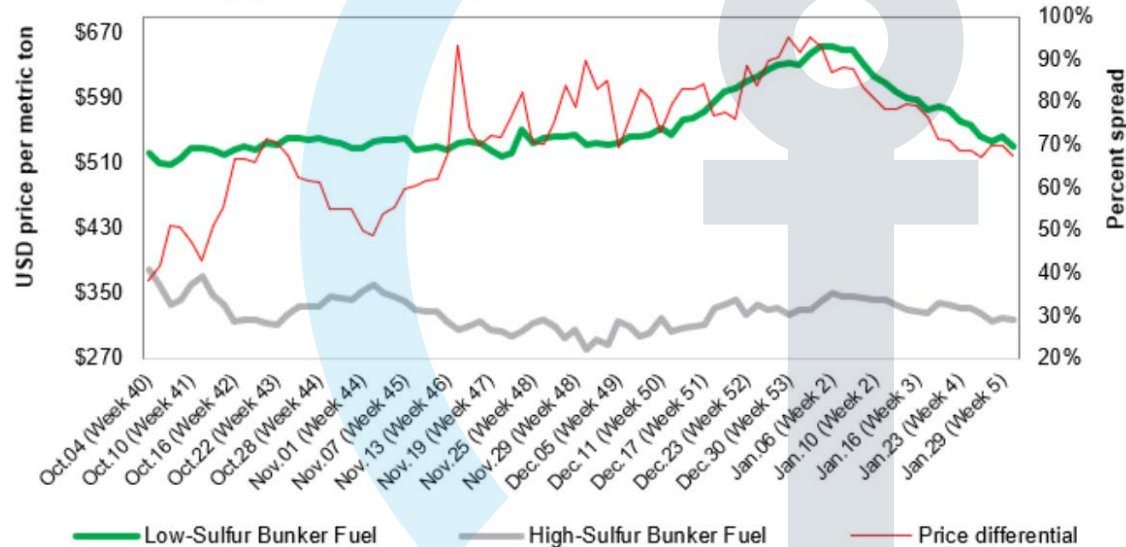


High & Low Sulphur Seafreight Fuels Sold Globally

COVID-19 adding fuel to VLSFO freefall



The cost differential between high- and low-sulfur fuels sold in Rotterdam, Antwerp, New York, and Singapore narrows to 67 percent.



Details

Very-low sulfur fuel oil in Singapore was assessed March 18th at \$270 per metric ton, **down 63 percent** from \$740/mt in early January

COVID-19 piled on to a **"perfect storm" of bearish fundamentals** including ample supplies of IMO-compliant fuels and soft demand

"We now expect that first quarter 2020 world **oil demand will decline by the largest volume in history** — even exceeding the declines during the 2009 financial crisis," ...IHS Markit



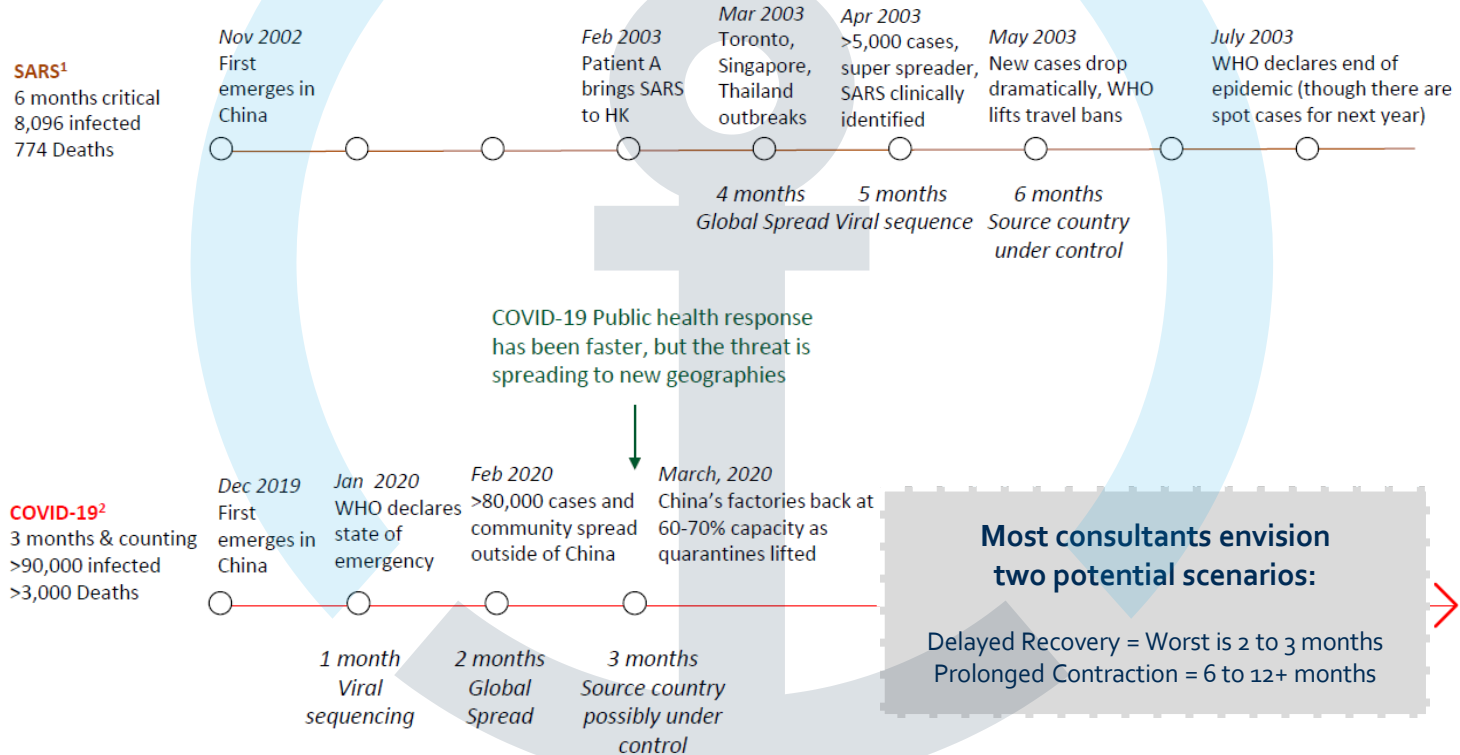
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*Where Do We Go
From Here...*



Where are We in This Outbreak

SARS, while smaller and more contained than COVID-19, is one analogue to understand how the epidemic could unfold





Possible Future Scenarios

Two scenarios for epidemiological & economic impacts



The situation now

COVID-19 has seen a consistent case decline in countries that had experienced rapid case growth early (esp China, South Korea)

However, cases outside of Asia are growing dramatically, driven primarily by complexes in Europe and the Middle East. The United States, while it has confirmed only a limited number of new cases, may experience a large increase in cases once testing kits become widely available



Epidemiological scenarios

Delayed Recovery

China and East Asian countries continue their current recovery and control the virus by late Q1 or early Q2 2020

European and US case count growth rises rapidly through mid-April

Prolonged Contraction

China and East Asian countries face a surge of re-infection as they attempt to restart economic activity

The virus is not seasonal with a mutated virus resurging in the fall of 2020



Economic impacts

China and East Asian countries start recovery but supply chains remain impaired

US and Europe large-scale quarantines, travel restrictions, and social distancing drive drop-off in consumer spending and business investment in 2020

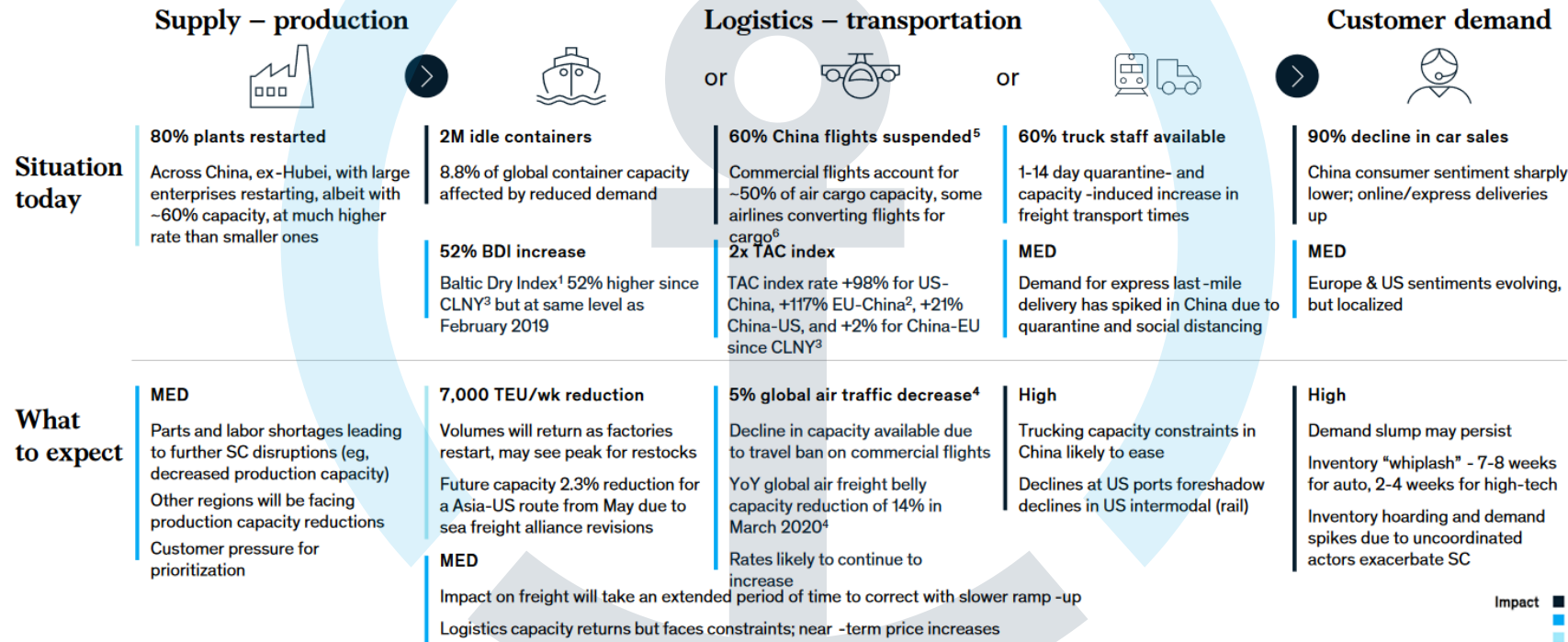
China and East Asia experience double-dip slowdowns as economic recovery is derailed in 2020 and pushed into Q1 2021

The United States and Europe experience demand-side reductions in consumer and business spending and deep recessions in 2020



Supply Chain Impacts to Expect

Many disruptions exist across the supply chain, but the full impact has yet to be felt



Impact ■ High
■ Medium
■ Low

Airfreight Market Outlook

Outlook for the next 3-6 months



| FROM | TO | Europe | North America | Latin America | North Asia | South Asia | Middle East & Africa |
|----------------------|----|--------------------------------|--------------------------------|---------------------------|---------------------------|------------------------------------|------------------------------------|
| Europe | | 3 M (High) 6 M (Moderate) | 3 M (High) 6 M (Moderate) | 3 M (High) 6 M (Moderate) | 3 M (High) 6 M (Moderate) | 3 M (High) 6 M (Moderate) | 3 M (High) 6 M (Moderate) |
| North America | | 3 M (High) 6 M (Moderate) | 3 M (High) 6 M (Moderate) | 3 M (High) 6 M (Moderate) | 3 M (High) 6 M (Moderate) | 3 M (High) 6 M (Moderate) | 3 M (High) 6 M (Moderate) |
| Latin America | | 3 M (High) 6 M (Moderate) | 3 M (High) 6 M (Moderate) | 3 M (High) 6 M (Moderate) | 3 M (High) 6 M (Moderate) | 3 M (High) 6 M (Moderate) | 3 M (High) 6 M (Moderate) |
| North Asia | | 3 M (High) 6 M (Moderate) | 3 M (High) 6 M (Moderate) | 3 M (High) 6 M (Moderate) | 3 M (High) 6 M (Moderate) | 3 M (High) 6 M (Moderate) | 3 M (High) 6 M (Moderate) |
| South Asia | | 3 M (High) 6 M (Moderate) | 3 M (High) 6 M (Moderate) | 3 M (High) 6 M (Moderate) | 3 M (High) 6 M (Moderate) | 3 M (High) 6 M (No congestion) | 3 M (Moderate) 6 M (No congestion) |
| Middle East & Africa | | 3 M (High) 6 M (No congestion) | 3 M (High) 6 M (No congestion) | 3 M (High) 6 M (Moderate) | 3 M (High) 6 M (Moderate) | 3 M (Moderate) 6 M (No congestion) | 3 M (Moderate) 6 M (No congestion) |

-  No congestion
-  Moderate congestion
-  High congestion

Seafreight Reefer Market Outlook

Outlook for the next 3-6 months



| FROM | TO | Europe | North America | Latin America | North Asia | South Asia | Middle East & Africa |
|----------------------|----|---|---|---|---|---|---|
| Europe | | 3 M (High Congestion) 6 M (Moderate Congestion) | 3 M (High Congestion) 6 M (Moderate Congestion) | 3 M (High Congestion) 6 M (Moderate Congestion) | 3 M (High Congestion) 6 M (Moderate Congestion) | 3 M (High Congestion) 6 M (Moderate Congestion) | 3 M (High Congestion) 6 M (Moderate Congestion) |
| North America | | 3 M (Moderate Congestion) 6 M (No Congestion) | 3 M (Moderate Congestion) 6 M (No Congestion) | 3 M (Moderate Congestion) 6 M (No Congestion) | 3 M (Moderate Congestion) 6 M (No Congestion) | 3 M (Moderate Congestion) 6 M (No Congestion) | 3 M (Moderate Congestion) 6 M (No Congestion) |
| Latin America | | 3 M (Moderate Congestion) 6 M (High Congestion) | 3 M (Moderate Congestion) 6 M (High Congestion) | 3 M (Moderate Congestion) 6 M (High Congestion) | 3 M (Moderate Congestion) 6 M (High Congestion) | 3 M (Moderate Congestion) 6 M (High Congestion) | 3 M (Moderate Congestion) 6 M (High Congestion) |
| North Asia | | 3 M (Moderate Congestion) 6 M (No Congestion) | 3 M (Moderate Congestion) 6 M (No Congestion) | 3 M (No Congestion) 6 M (No Congestion) | 3 M (No Congestion) 6 M (No Congestion) | 3 M (Moderate Congestion) 6 M (No Congestion) | 3 M (No Congestion) 6 M (No Congestion) |
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-  No congestion
-  Moderate congestion
-  High congestion



WALL STREET JOURNAL LOGISTICS REPORT
NUMBER OF THE DAY

1
MILLION

Minimum number of companies world-wide that have one or more Tier 1 suppliers affected by the coronavirus, up from 51,000 in early February, according to Dun & Bradstreet.



Edward DeMartini
*VP, Air Logistics Development
North America*

Kuehne + Nagel, Inc.
10 Exchange place
Jersey City, New Jersey 07302
United States

p. +1 201 413 5786
m. +1 201 957 3530
edward.demartini@kuehne-nagel.com