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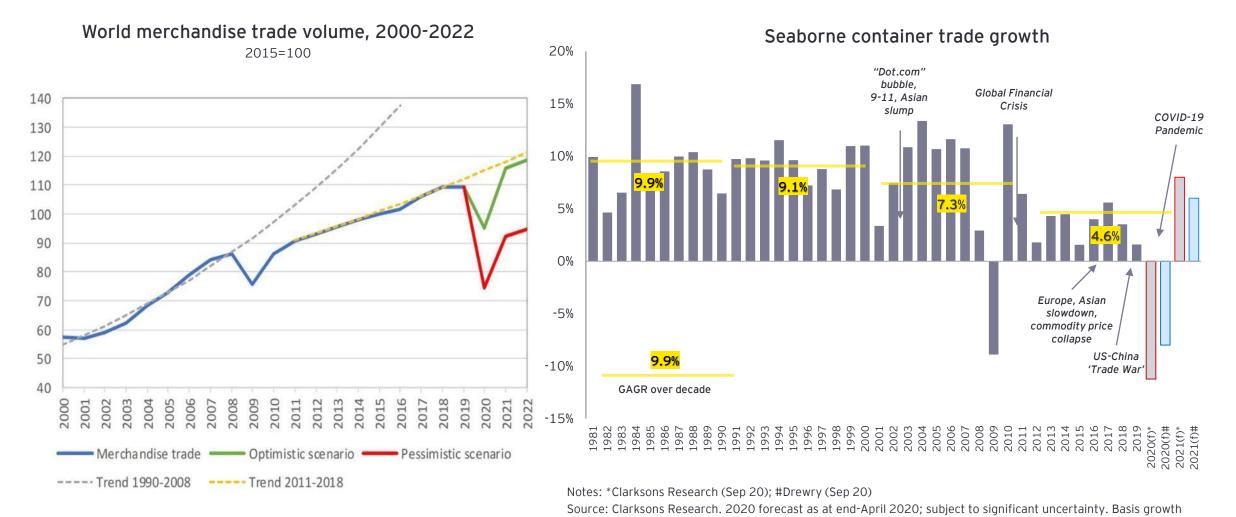
Post-Pandemic Readiness of ASEAN Ports, Shipping and the Logistics Sector for a Rapid Re-emergence of the Economy, Demand and Trade Growth

Transport Events - Kuala Lumpur 18th February 2021



COVID-19 has driven a steep decline in global trade - when and *how* will growth return?

> Trade had already slowed before virus struck, weighed down by trade tensions and slowing economic growth



in trade in TEU-miles 2002-2019, trade in TEU in 1997-2001, and TEU lifts 1981-1996.

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Source: WTO Secretariat

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Will supply chains and the patterns of trade be substantially restructured?

When do you expect global economic growth to return? (May 2020)

12% By the end of 2020

32% In the first half of 2021

41% In the second half of 2021

15% Only in 2022

EY Webcast NextWave Global Trade Survey ~1,700 respondents

How do you expect global supply chains to restructure? (May 2020)

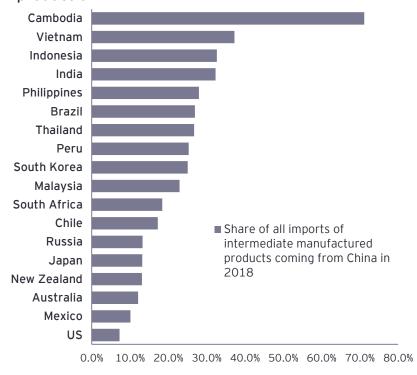
14% No significant geographical restructuring

52% Significant geographical restructuring, with increased near-shoring and multi-sourcing

34% Significant geographical restructuring, with re-shoring and multi-sourcing

EY Webcast NextWave Global Trade Survey ~1,700 respondents

Asian factories are especially dependant on PRC production



Source: World Integrated Trade Solutions, World Bank

64% of North American manufacturers say reshoring is likely following Pandemic 28% of manufacturers *extremely* likely to bring more production and sourcing back to North America

April 20 Survey of 878 North American manufacturing and industrial sector professionals (Thomas Survey)

China's production base plays a critical role in global supply chains - how easily can this be replaced?

- Pre COVID-19, the pace of globalisation and trade liberalisation was slowing
- ► US-China trade 'war' has introduced further threats...and opportunities (for certain countries, e.g. Vietnam)
- "Industry 4.0" and advances in robotics (e.g. "sewbots", etc) have driven some re-shoring and near-shoring
- Will this become widespread and / or will supply chains become more diversified (i.e. more Asia sourcing outside PRC)?
- China's scale and quality of logistics infrastructure cannot be easily supplanted.
- Since Q3 2019, PRC focus on Blockchain and digital technologies to enhance security, visibility and resilience of supply chains - demonstrate best in class.
- Very emotive time for US surveys and views / intentions do not necessarily translate to actions. What are the cost implications of supply chain restructuring and are consumers truly willing to pay?

40% of Americans say they won't buy "Made in China"

78% of Americans say they are willing to pay more for products if companies that make those goods move their manufacturing plants out of China

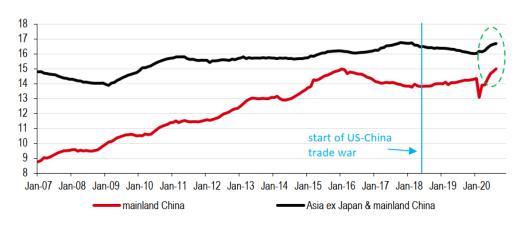
FTI Communications Survey, May 20 Online, 1,012 respondents



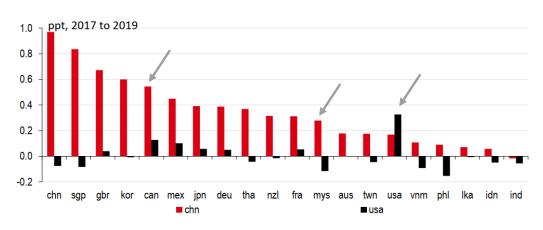
What does recent data indicate?

China's role as a production base appears to have strengthened, whilst COVID has hit services more severely than manufacturing

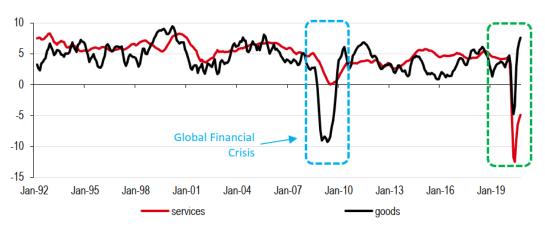
Global export market share (%, 12mth m.a.)



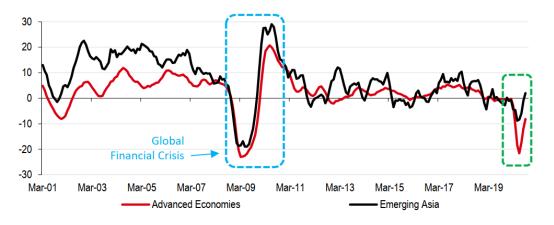
Change in share of inputs from mainland China and the US in economy's exports



US Household Consumption Expenditure (% y-o-y)



Export Volumes (% y-o-y, 3mth m.a.)





Port & Terminal Operators - Covid-19 and Beyond



- Sharp falls in cargo demand, but also sharp rises increased variability
- Container production down 40% H1 2020 vs. H1 2019. As demand recovered (India and China Manufacturing PMIs¹ hit decade highs), delays in returning empty containers to exporters have led to a shortage of containers for stuffing
- Strict containment measures, screenings, increased documentation, reduced workforce capacity, etc have heavily impacted port operations
- Fully automated terminals are less exposed to the health impacts and may also have more flexibility in capacity management
- Many ports have deferred expansion plans until demand risk is eased

- Conversely, for certain **congested ports**, a temporary easing of demand may provide an opportunity to **bring forward upgrade plans or capacity enhancements**, without disrupting operations or losing market share
- Some territories are accelerating privatisations / port asset disposals due to COVID-19 pressure on government finances; M&A activity continues as well
- Will COVID-19 accelerate **digitalization**, especially around **"Smart Port Ecosystems"** that reduce personto-person interface & enhance supply chain sustainability and resiliency?
- Accelerate or slow decarbonisation and climate change mitigation?
 - Recent survey of 67 ports asked if they had performed climate-risk assessments, installed early-warning systems or made contingency plans. Only 15% had done all three. Over a fifth had done none at all.²
- Capex constraints may slow the pace of investment and change



Modal Competition - Air Freight Switching to Sea (and Rail) - Temporary or Structural Shift?

- For some years the increasing quality of ocean transportation, especially cold chain has driven some modal shift from air to sea-freight.
- The massive imbalance between sea-freight capacity versus air-freight capacity, means that sea-freight can significantly impact air-freight volumes, but the opposite does not hold true.



- COVID-19 appears to be accelerating this trend. High demand for e-commerce, PPE, medical equipment, etc, has continued, even as air-cargo capacity has been substantially constrained due to passenger belly capacity being withdrawn.
- Air-freight rates are still high (as are sea-freight). 3PLs / shippers are increasingly looking to expedited sea-freight services...and to a lesser degree rail PRC-EU:
 - H1 2020 PRC-EU number of freight trains up 36% year-onyear. Congestion in July, August at Wuhan, Khorgos transhipment hub, etc.
 - Sellers on Alibaba.com, can now buy sea freight space directly from Zim
- Readiness for Covid-19 vaccine distribution?
 - Air Cargo Association (TIACA) and Pharma.aero, concerned that global cool supply chains may lack adequate capacity
 - B2G Consulting noted that global distribution of vaccines + boosters for three-quarters of world's population could require equivalent of 12,000 777Fs plus refrigeration
 - However, is the *immediate* need for this level of distribution and capacity as opposed to *distribution* to at risk groups as an *immediate* priority, such that economies can re-open?



Thank You



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NextWave Global Trade
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