







COVID-19 and maritime transport: Disruption and resilience in Asia











COVID-19 and Maritime Transport: Disruption and Resilience in Asia

Prof. Thanos Pallis*
UNCTAD International Consultant



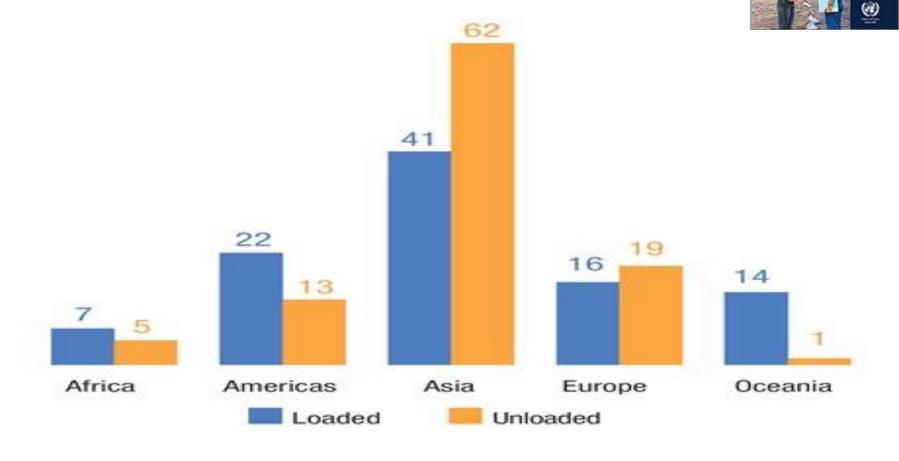


12 November 2020 16:00 - 17:00 hrs. , CET Online

Participation of Asia in world maritime trade: 2019

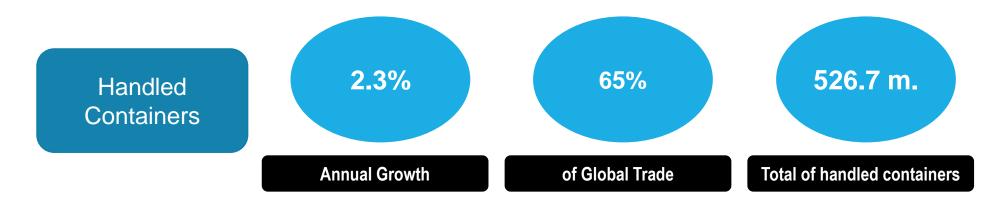
Global maritime trade volumes





Participation of Asia in world maritime trade: 2019

China





Highest
Liner Shipping
Connectivity

6 of the 10 best-connected economies are in Asia

Hong-Kong

Japan Malaysia

Republic of Korea

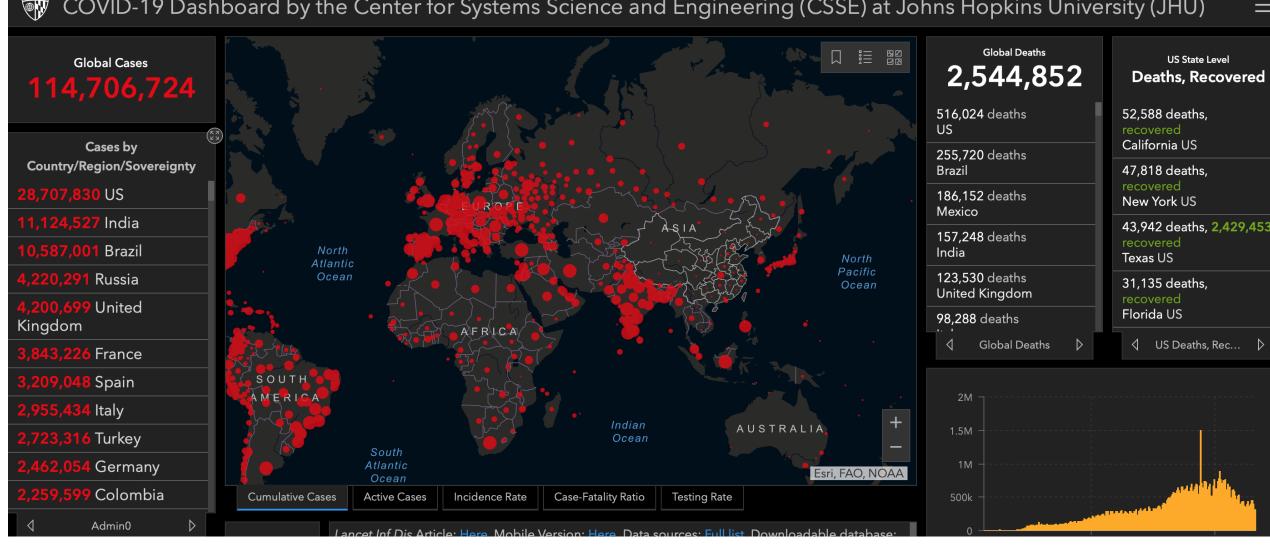
Singapore

China - the best-connected country - improved its liner shipping connectivity index by 56% from the baseline year 2006, while the global average liner shipping connectivity index went up by 50% during the same period.

An external crisis: COVID-19 pandemic

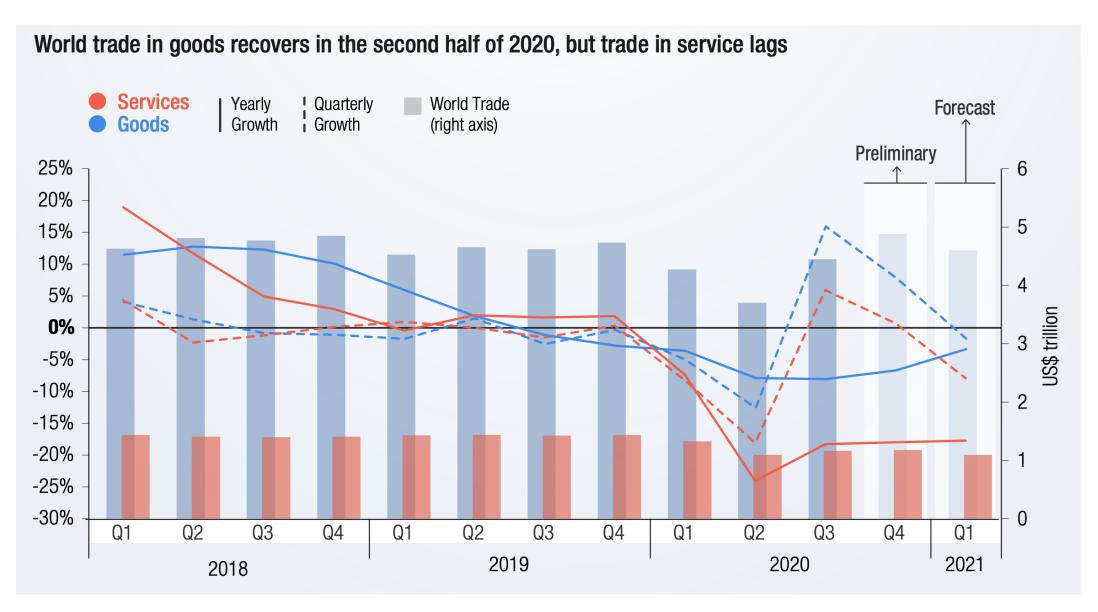


COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU)



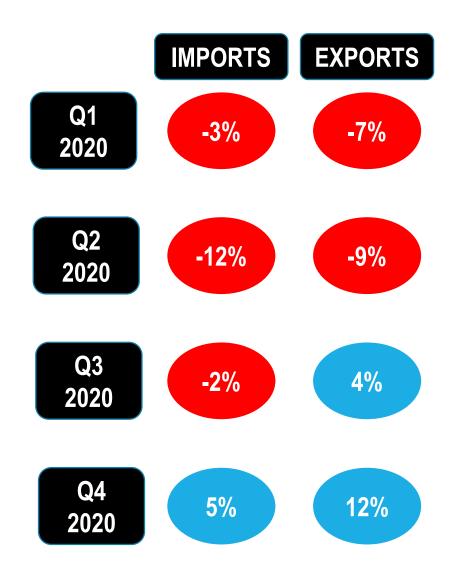
The initial shock: COVID-19 affects trade flows at unprecedented speed & scale

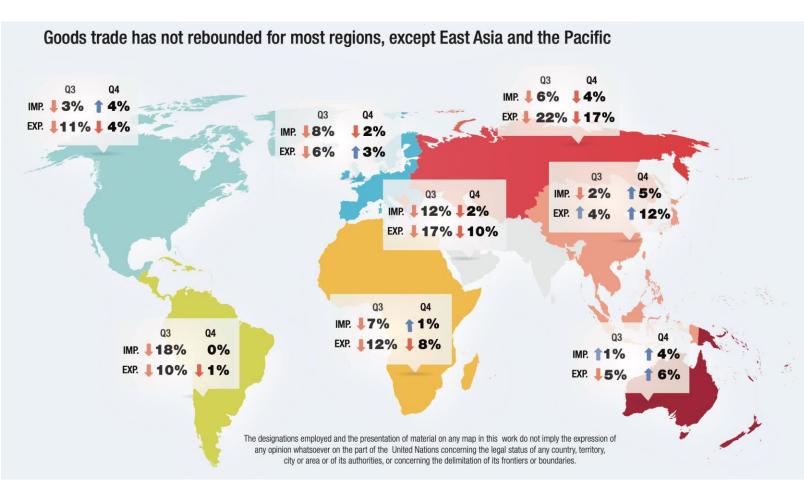




Imports & Exports: East Asia & the World







Source: UNCTAD (2020). Global Trade Update (Various issues)

COVID-19 induced Supply Chain Shocks



Phase A

Phase B

Phase C

Phase D

Supply Shock

- 1. Decline in induced demand (Chinese production).
- Lockdown of most of the workforce.
- Shortages in key sectors (pharmaceuticals and medical equipment).
- 4. Industrial base shut down

Demand Shock

- 1. Decline in global derived demand.
- 2. Switch to basic goods.
- 3. Lockdown of a large consumer base.
- 4. Less commercial demand.
- 5. Travel & tourism collapse.

Adaptation

- 1. Decline in economic activity and income.
- 2. Diversion of savings and capital.
- (+) lockdown = (-) deferred demand.
- 4. Rebalancing of supply and demand.

Divergence

- Divergence in epidemiological outcomes.
- Quick bounce-back in some cases only
- 3. Basic goods and medicals in demand
- Consumption pattern: dematerialization of buying practices
- Lockdowns in some economies

Mid-January – early March

Early March – May

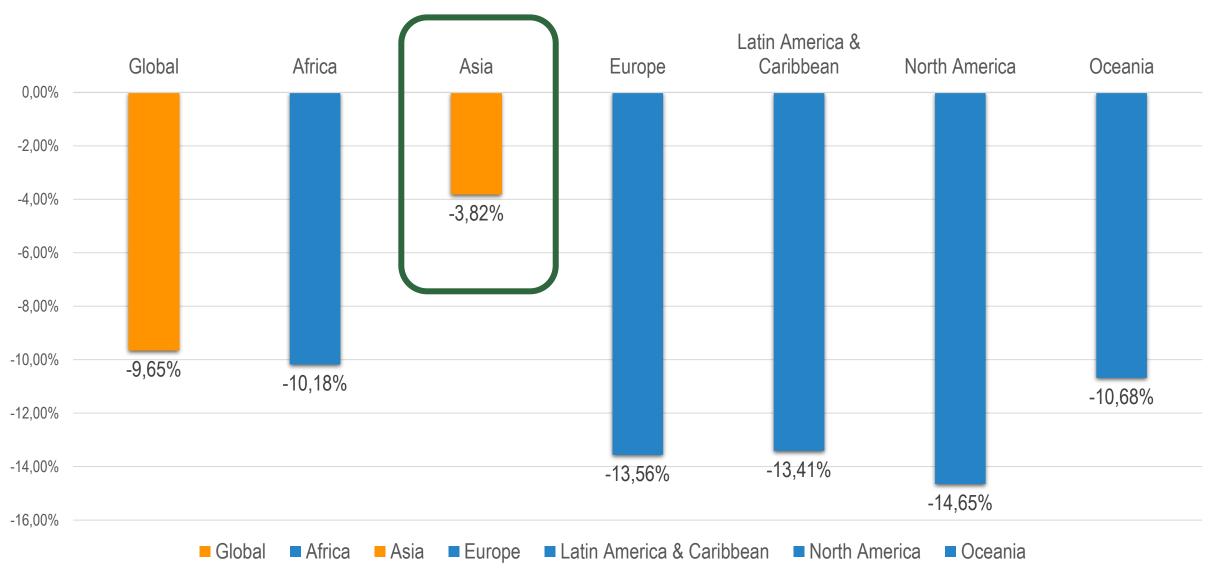
Early May - October

On-going

Source: Adjusted from: T. Notteboom, A. Pallis and J-P. Rodrigue (2021),

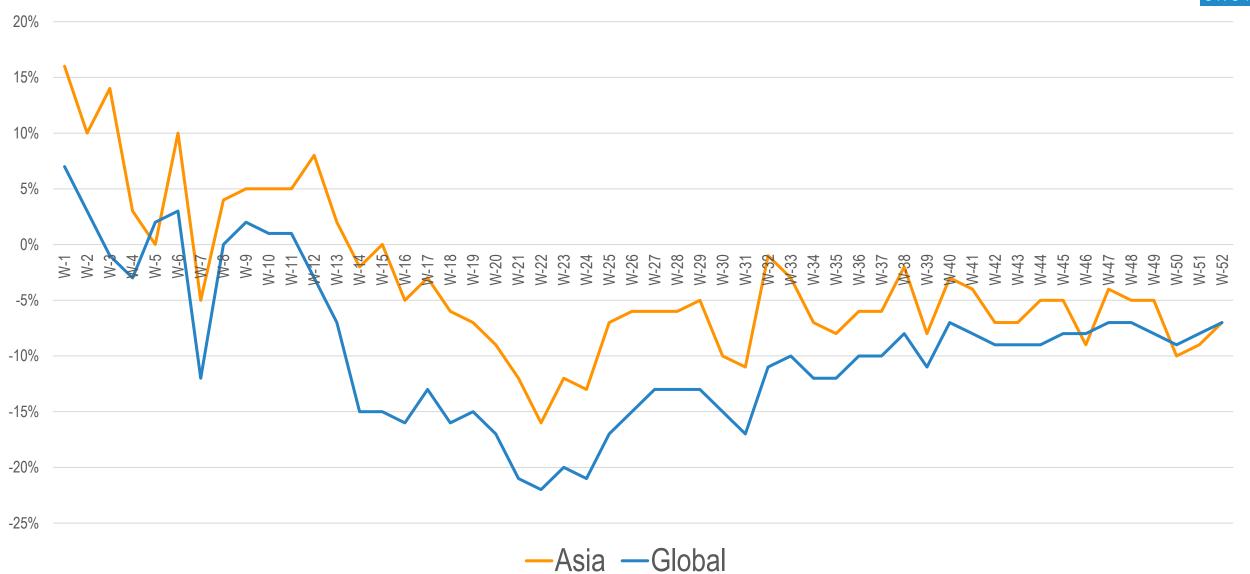
Decline of vessels calls in 2020 (% change over 2019)





Vessels calls in 2020: Asia vs Globe, per week (% change over 2019)





PART A The impact of the pandemic on : East, South & South-East Asia

East Asia

CHINA HONG KONG JAPAN KOREA

South East Asia

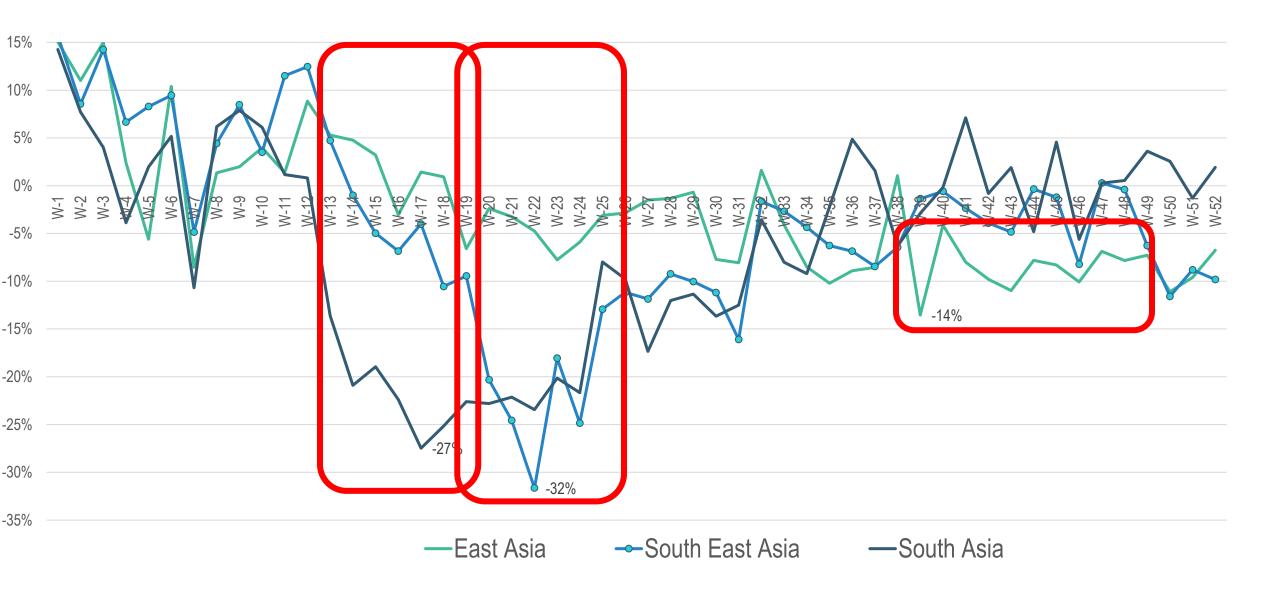
BRUNEI
CAMBODIA
INDONESIA
MALAYSIA
MYANMAR
PHILIPPINES
SINGAPORE
THAILAND
VIET NAM

South Asia

BANGLADESH INDIA IRAN MALDIVES PAKISTAN SRI LANKA



Vessels calls 2020: East/South/South-East Asia, per week (% change over 2019)



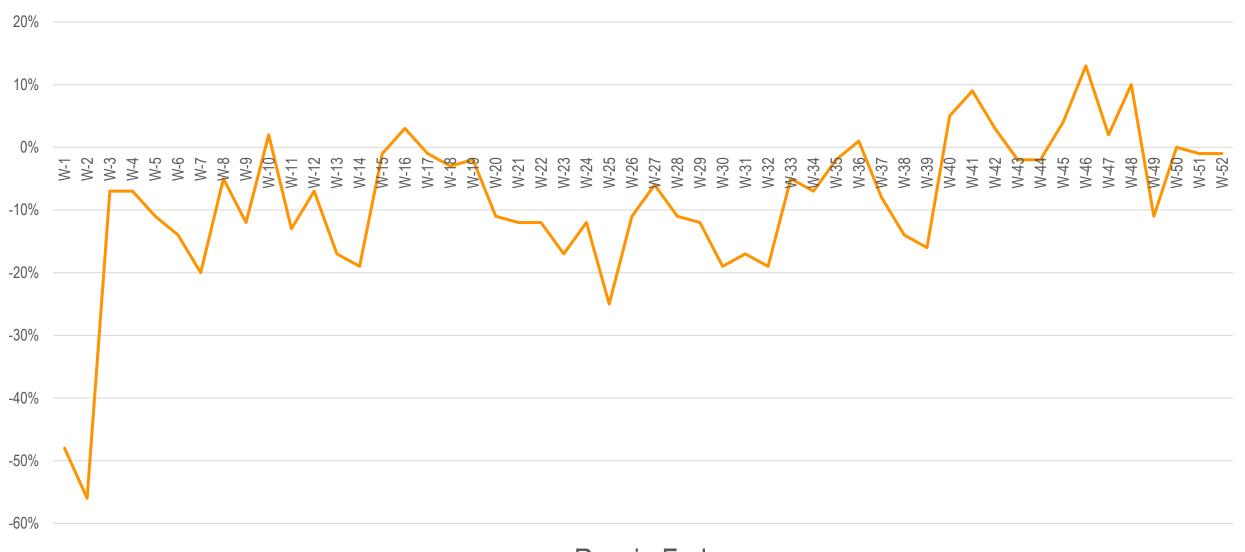
Vessels calls in 2020: Intra-Regional Dynamics in Asia (% change over 2019)





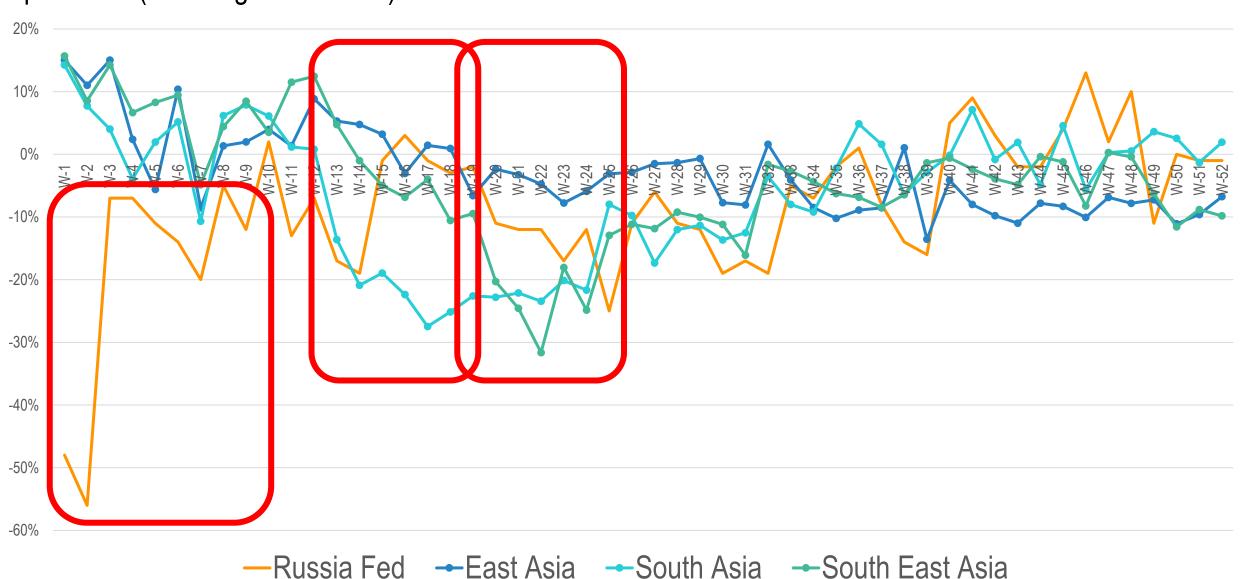
Vessels calls 2020: Russia per week (% change over 2019)



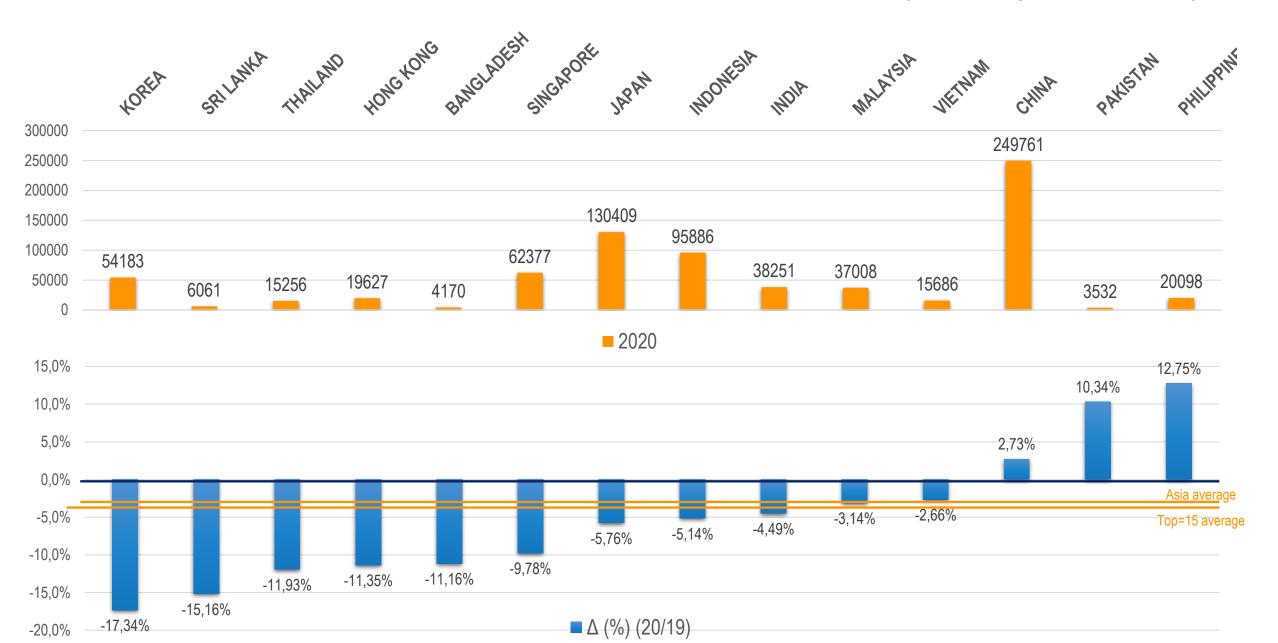


Vessels calls 2020: East/South/South-East Asia/Russia per week (% change over 2019)



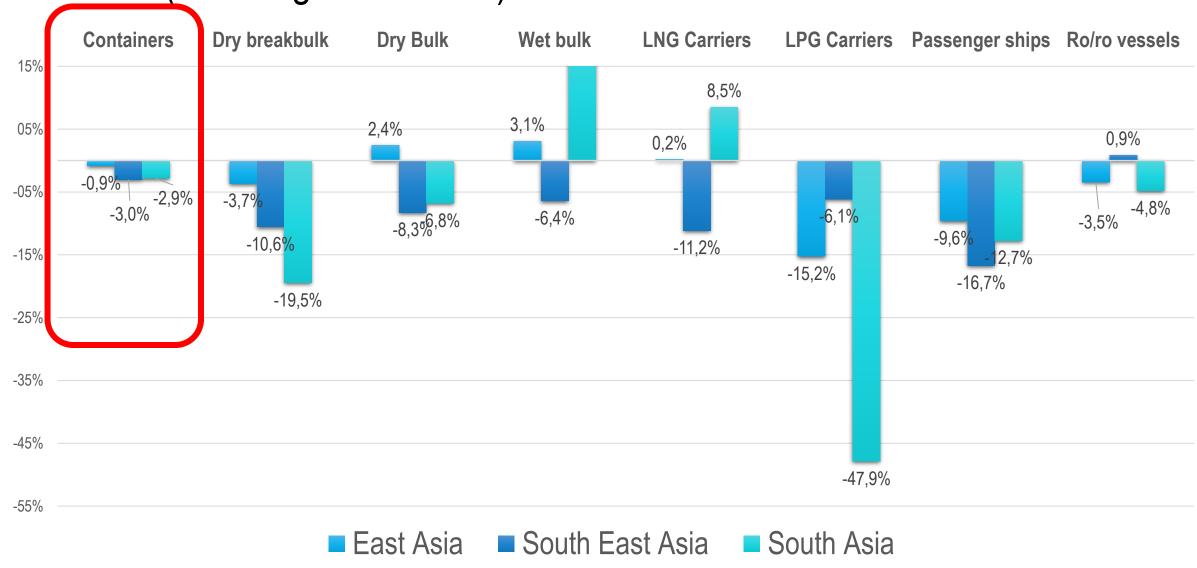


Vessels calls in 2020: 15 E/S/SE Asian countries with most calls (% change over 2019)



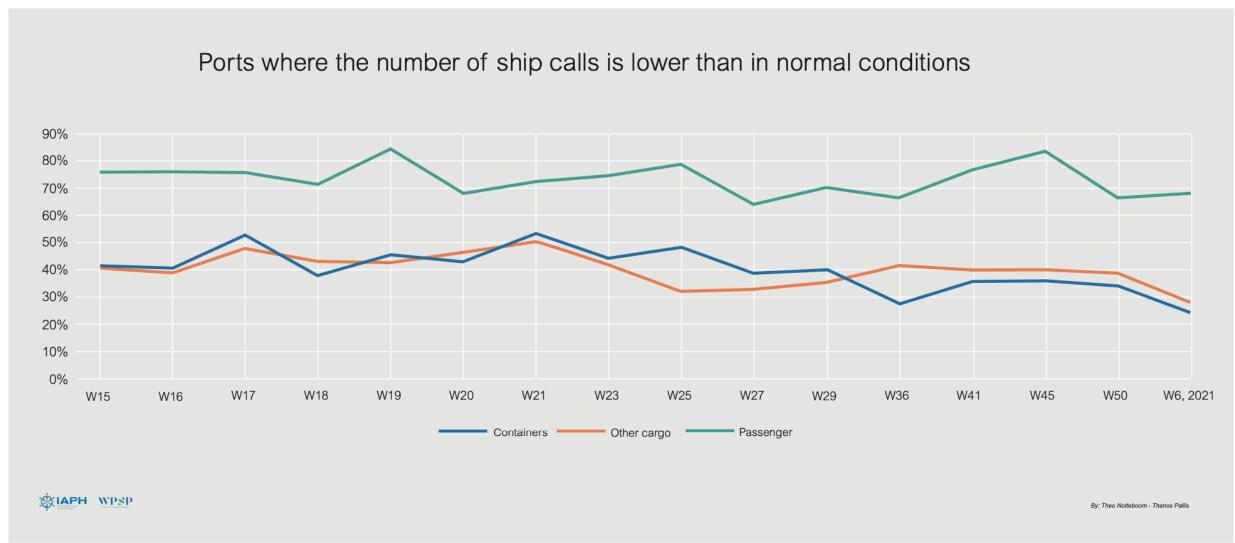
Vessels calls in 2020: **East/South/South-East Asia**, per market (% change over 2019)





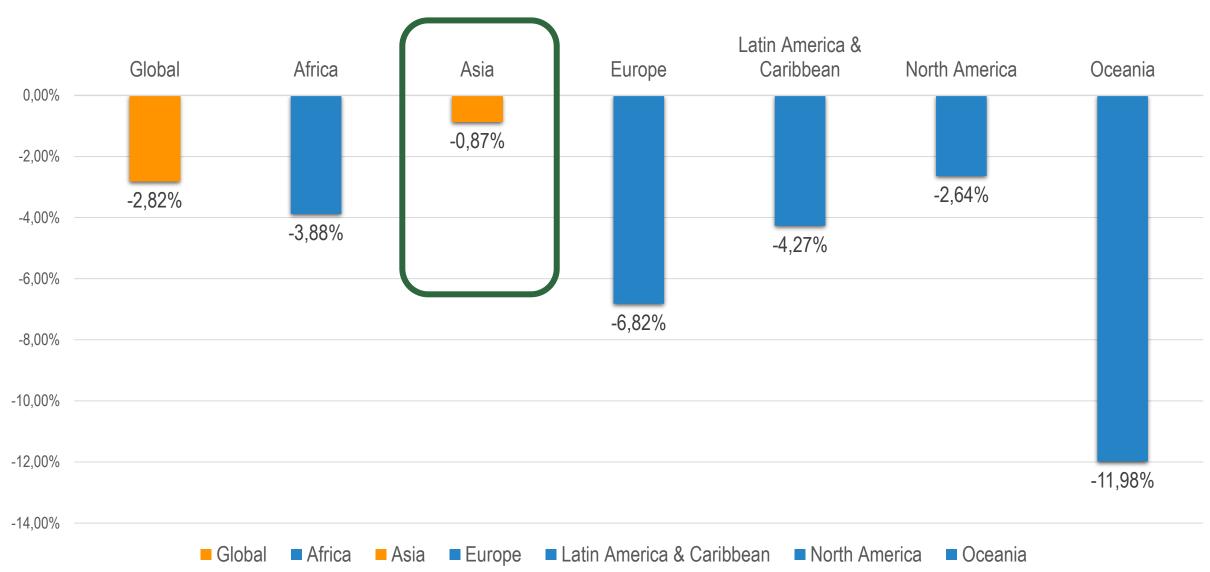
Impact on vessel calls: Only half (40-50%) of ports have seen a major decrease





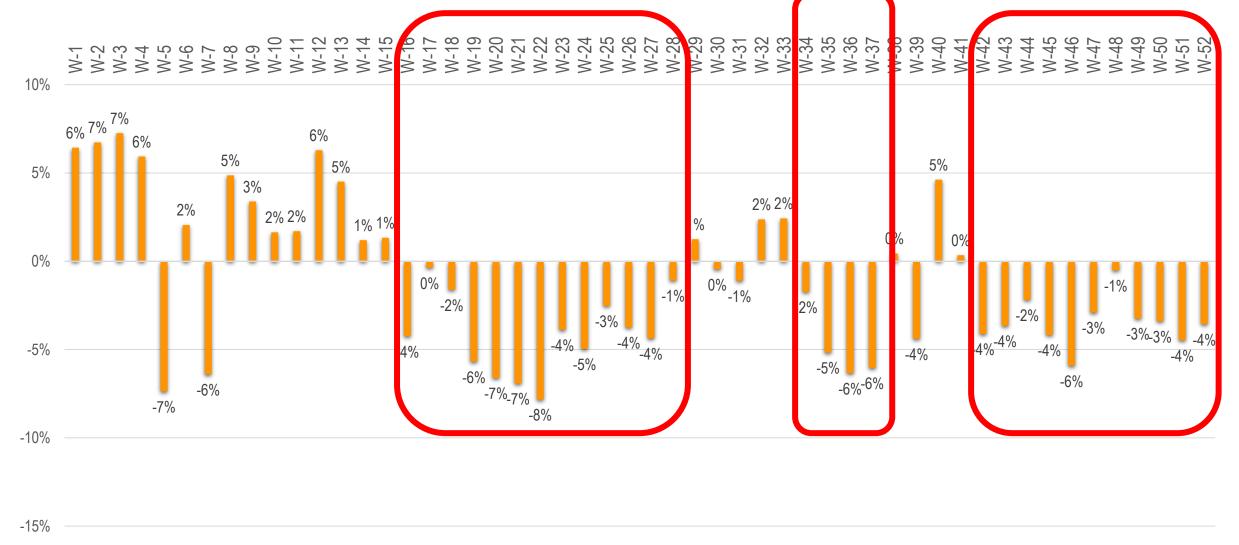
Containerships calls in 2020: Asia vs Globe (% change over 2019)





Containerships calls in 2020: E/S/S-E Asia (% change over 2019)





Asia

Containerships calls in 2020: Intra-Regional Dynamics (% change over 2019)

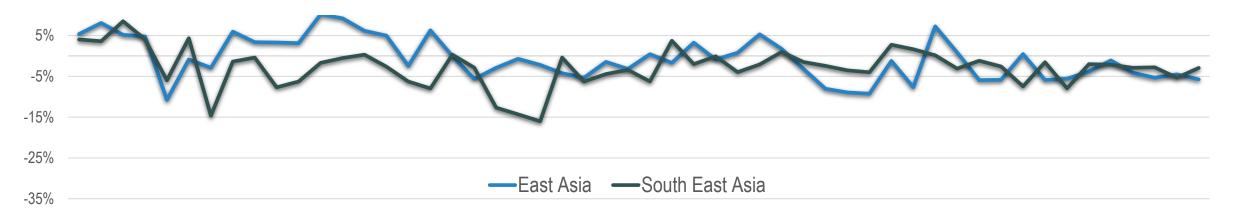




Containerships calls in 2020: E/S/S-E Asia Intra-Regional Dynamics (% change over 2019)



W-1 W-3 W-5 W-7 W-9 W-11W-13W-15W-17W-19W-21W-23W-25W-27W-29W-31W-33W-35W-37W-39W-41W-43W-45W-47W-49W-51

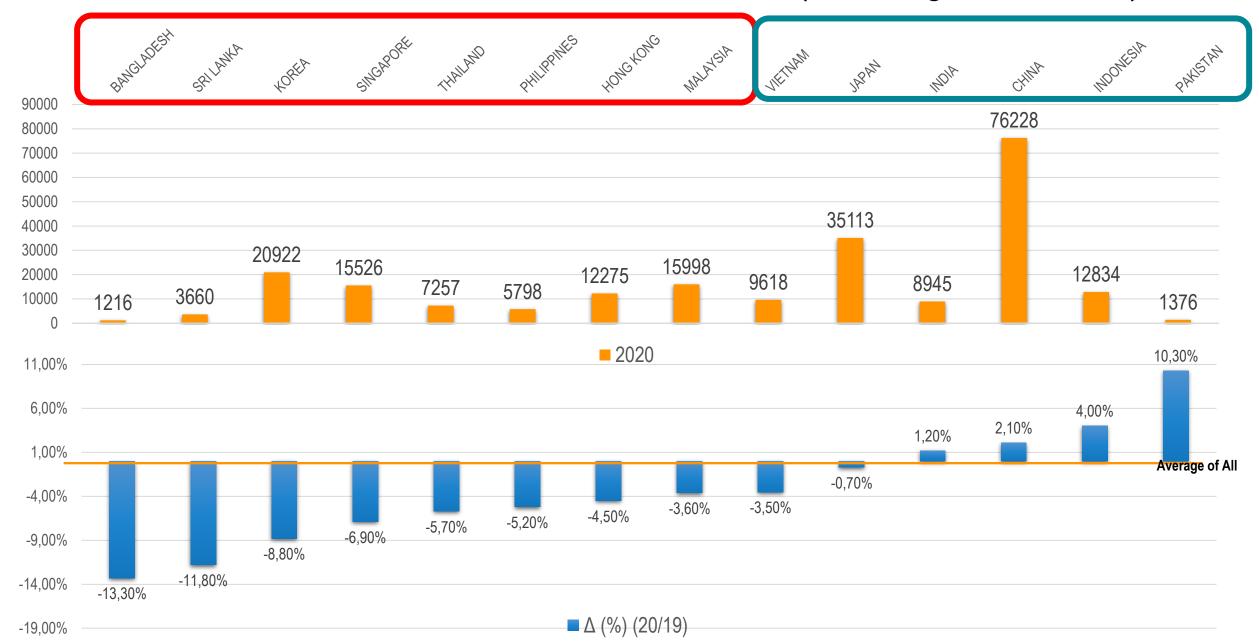


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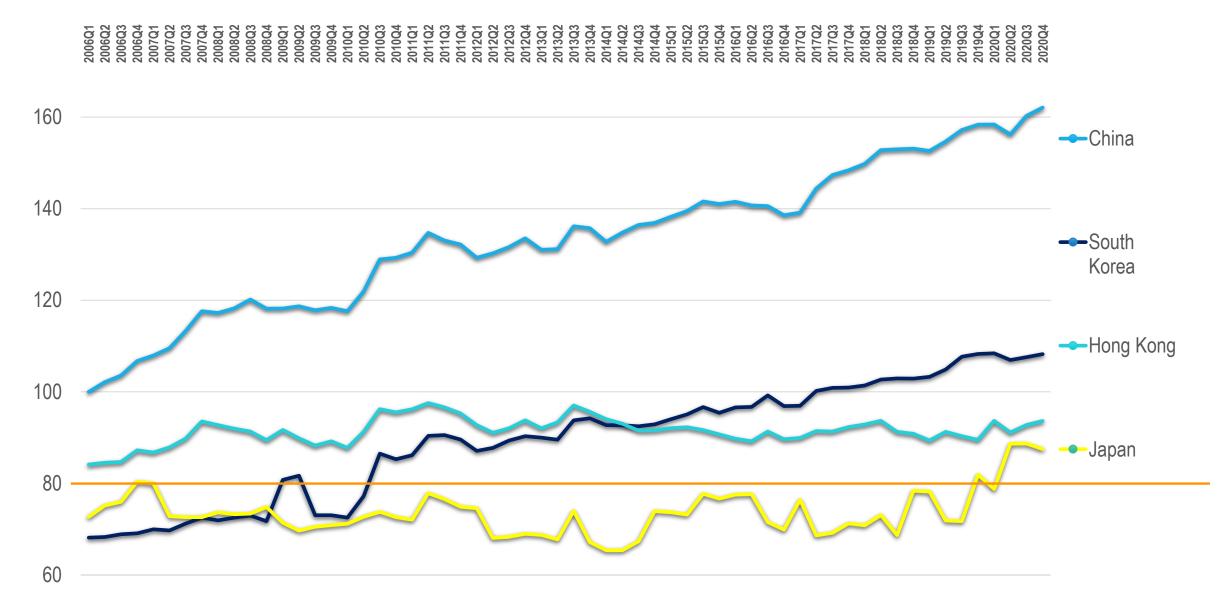
Source: UNCTAD (in progress) maritime transport component of the UNDA project "COVID-19 Response on Transport/Connectivity and Trade".

Vessels calls in 2020: Countries with >1.000 calls (% change over 2019)



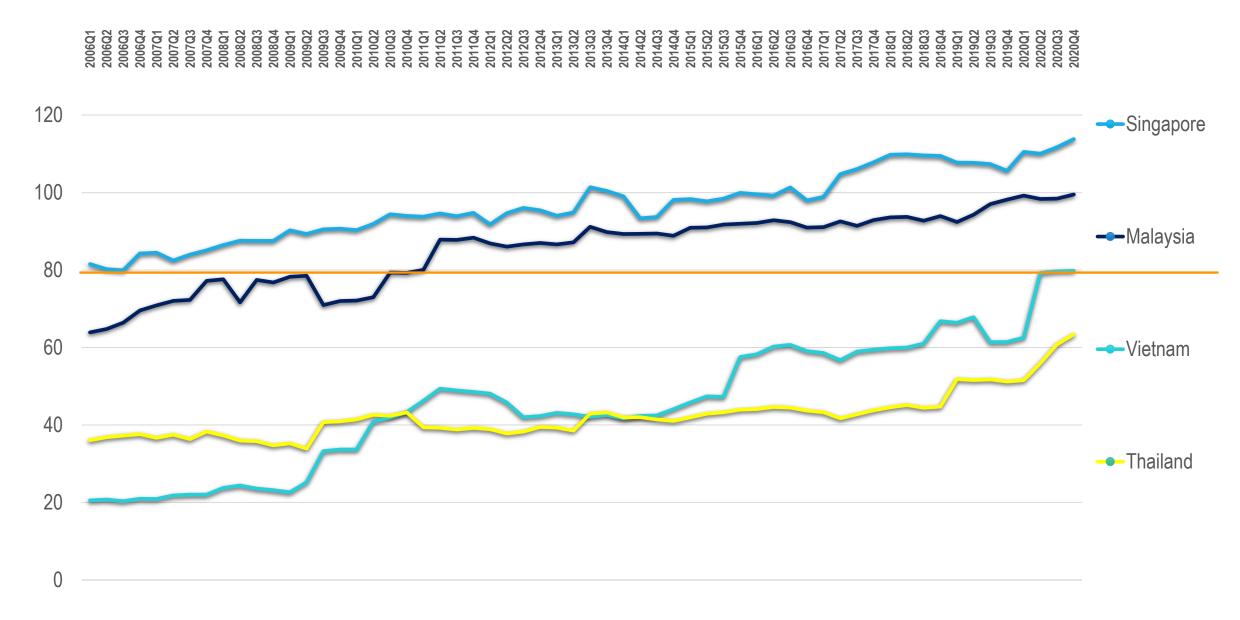
Liner Shipping Connectivity Index (LSCI): Trends in East Asia Countries (2006-2020)





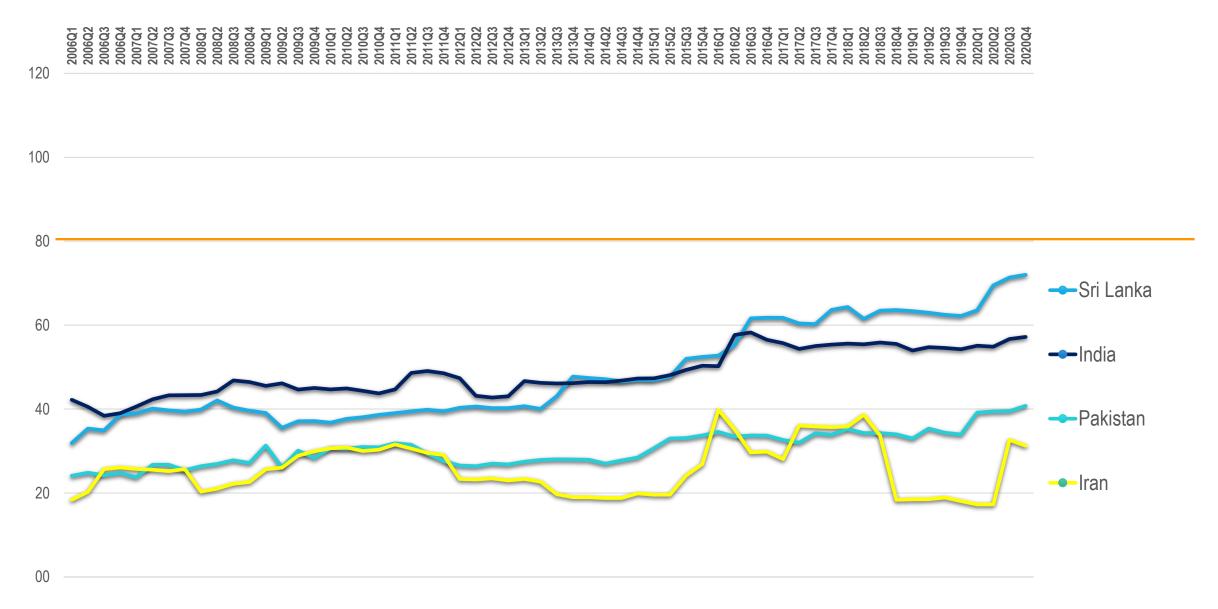
Liner Shipping Connectivity Index (LSCI): Trends in South East Asia Countries (2006-2020)





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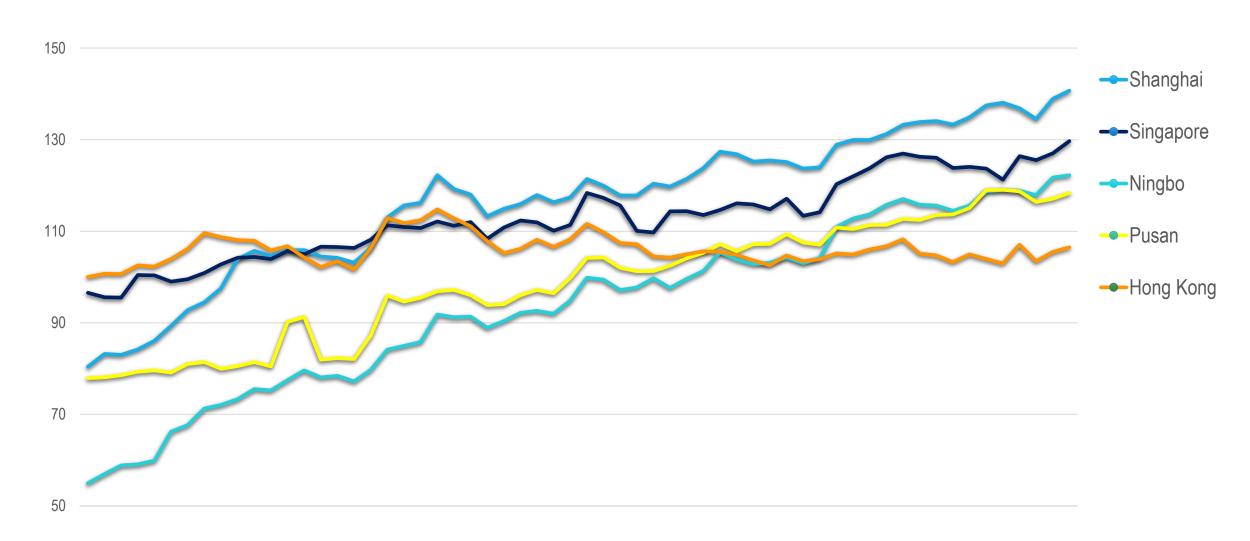




Liner Shipping Connectivity Index (LSCI): Trends in most connected ports (2006-2020)

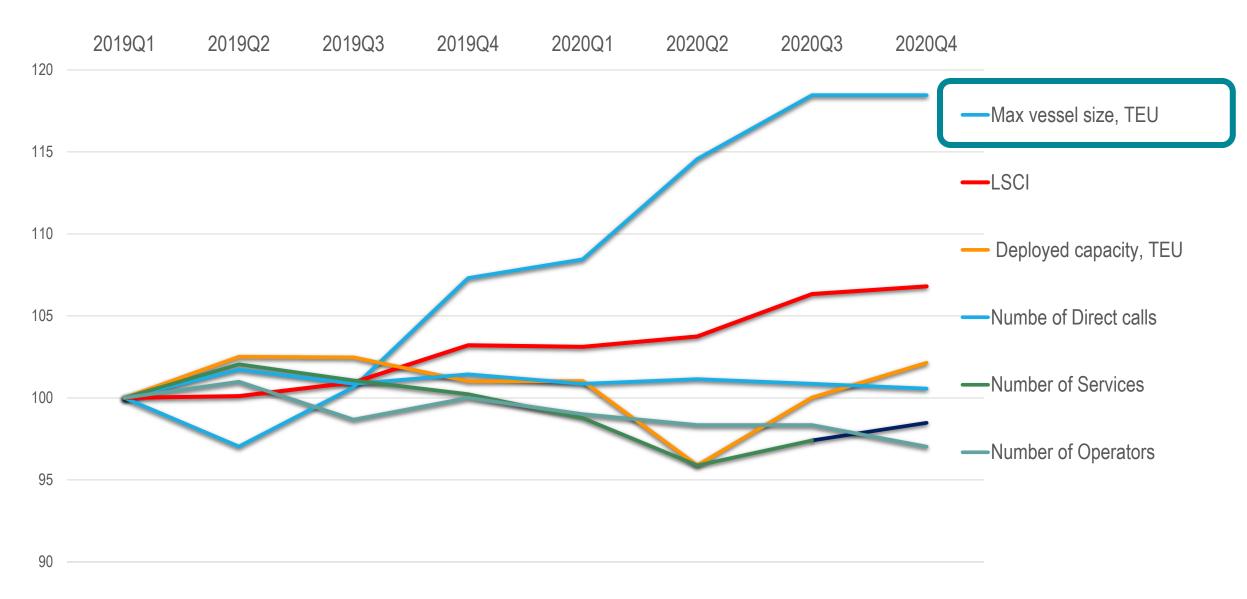






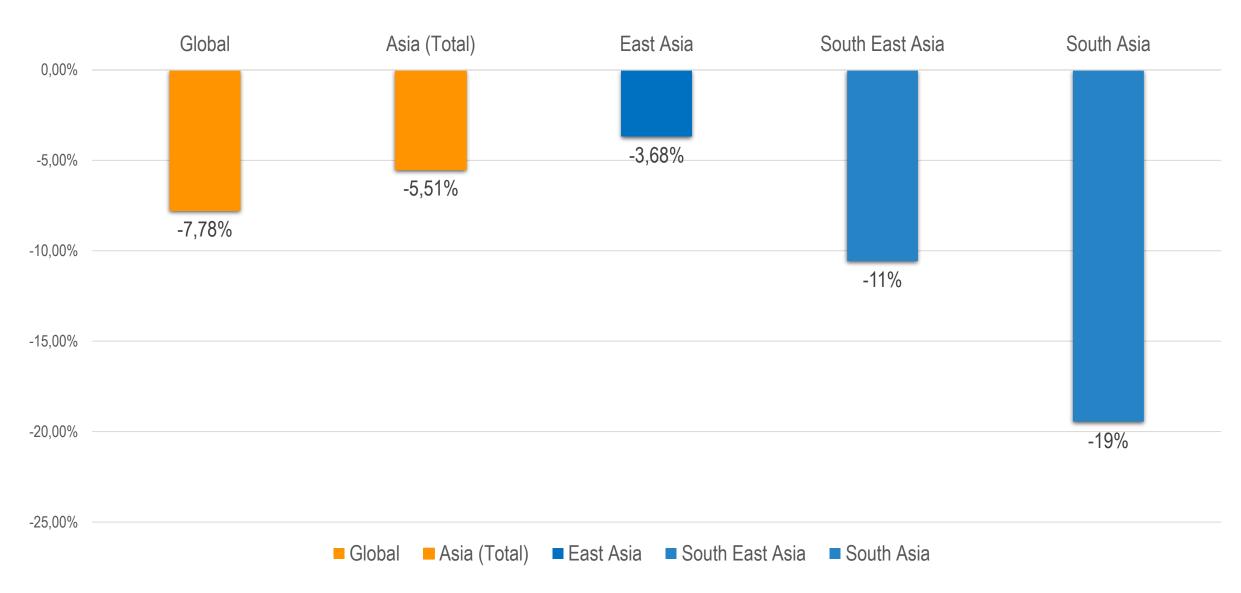
Liner Shipping Connectivity Index in East Asia (2019-2020)





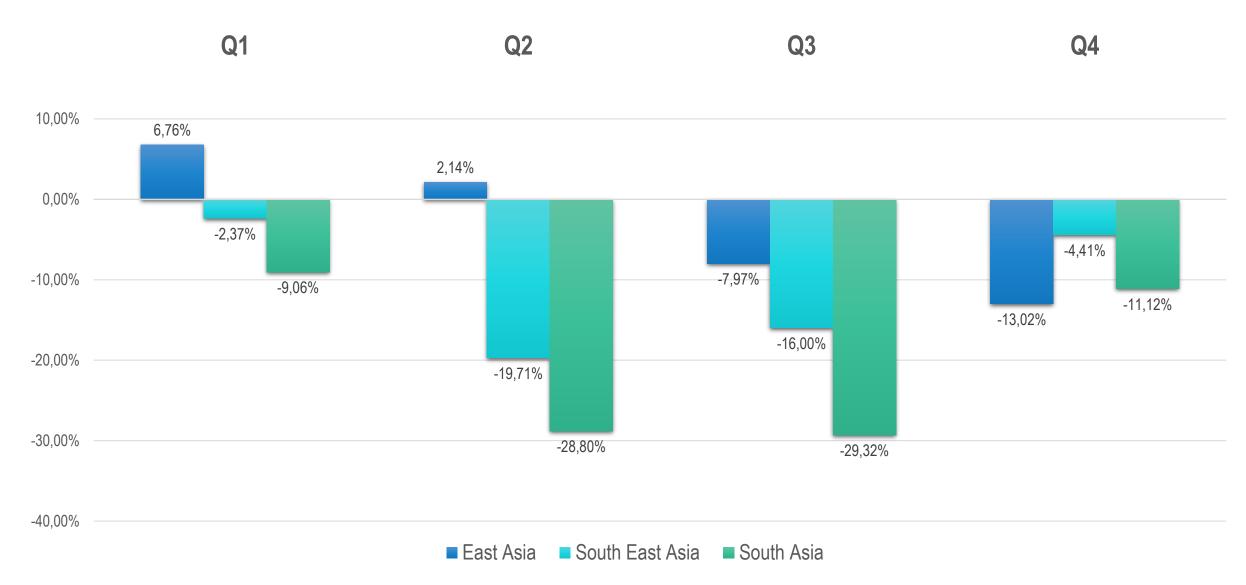
Breakbulk vessels calls in 2020 (% change over 2019)





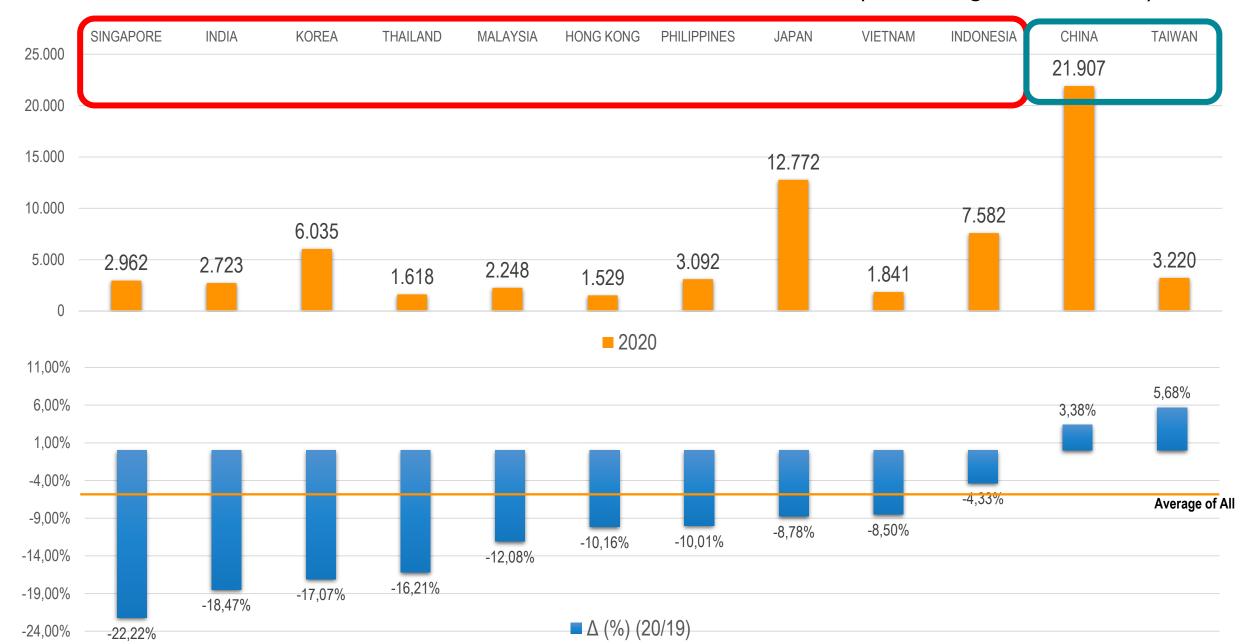
Breakbulk ships calls in 2020: S/E/S-E Asia dynamics (% change over 2019)





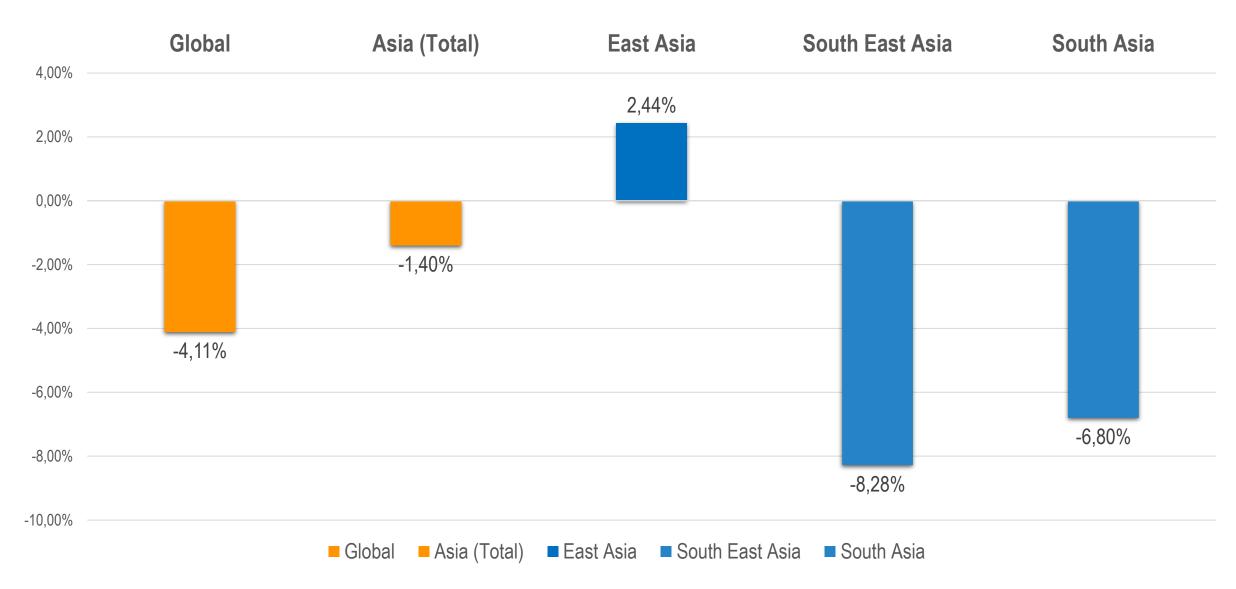
Source: UNCTAD (in progress) maritime transport component of the UNDA project "COVID-19 Response on Transport/Connectivity and Trade".

Break bulk Vessels calls in 2020: Countries with >1.000 calls (% change over 2019)



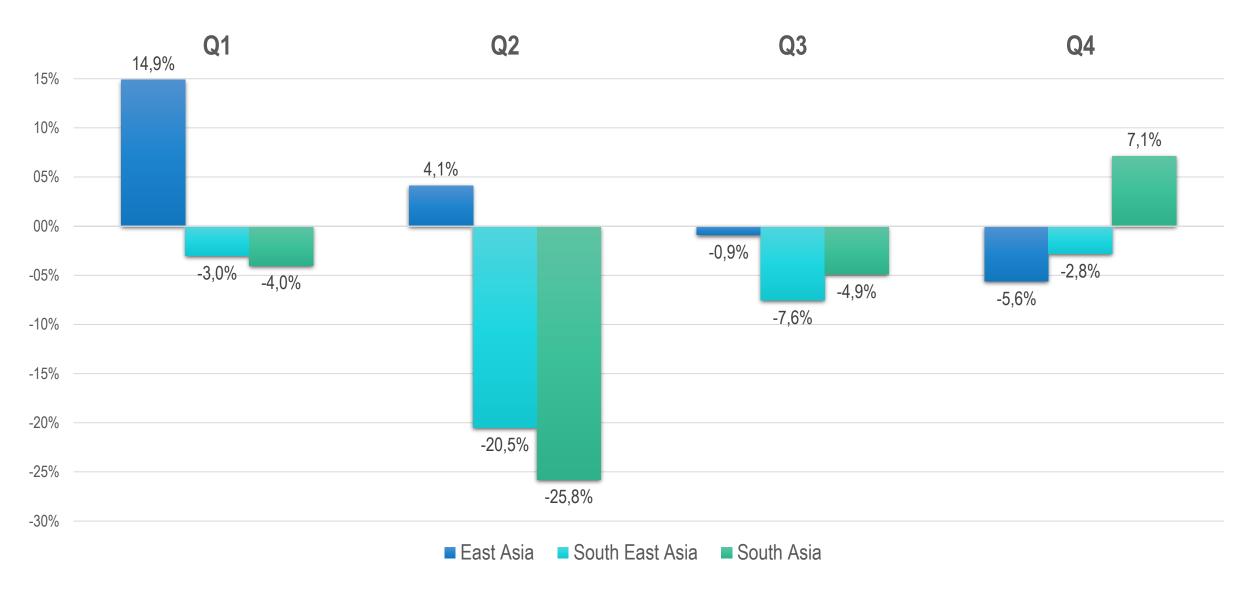
Dry bulk vessels calls in 2020 (% change over 2019)



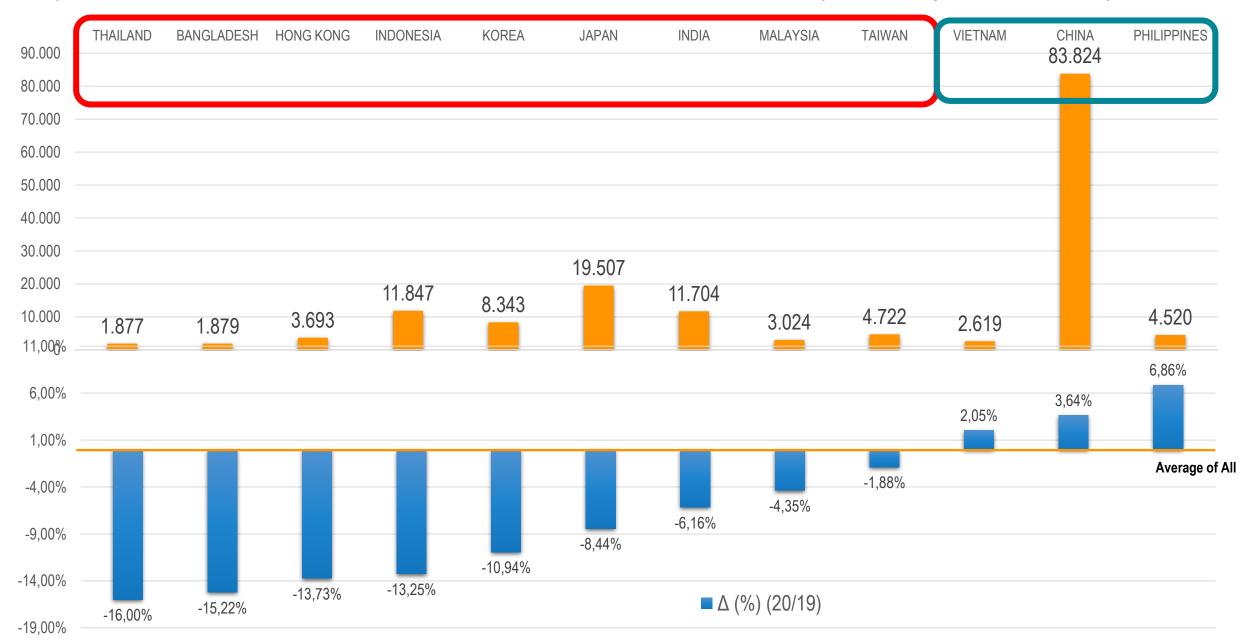


Dry bulk vessels calls in 2020: S/E/S-E Asia dynamics (% change over 2019)



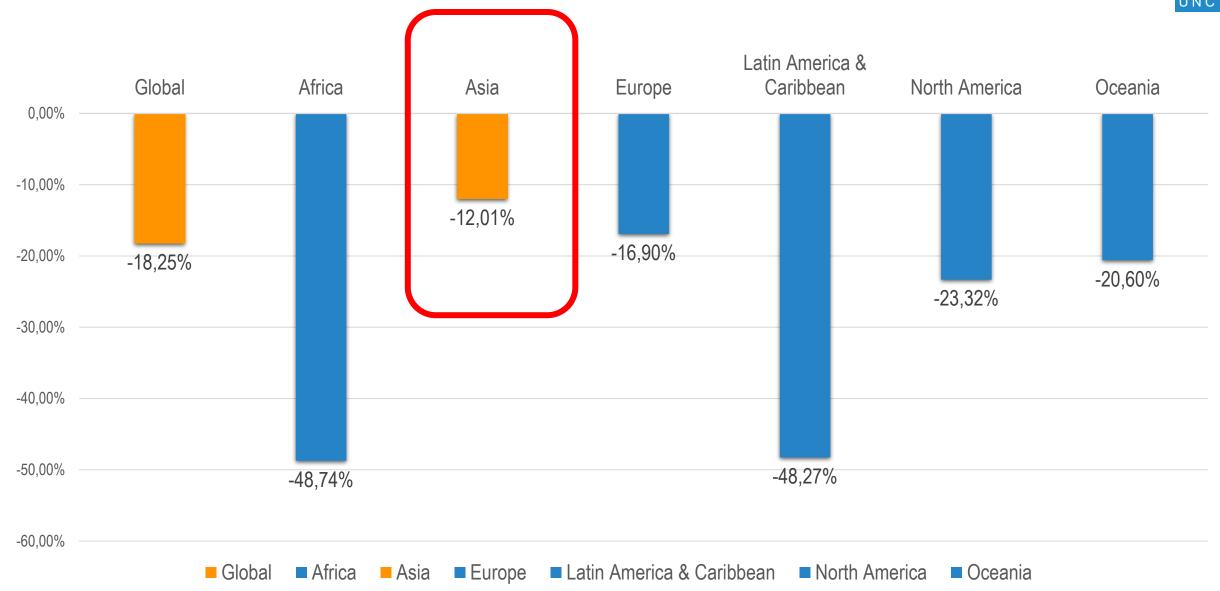


Dry bulk vessels calls in 2020: Countries with >1.000 calls (% change over 2019)



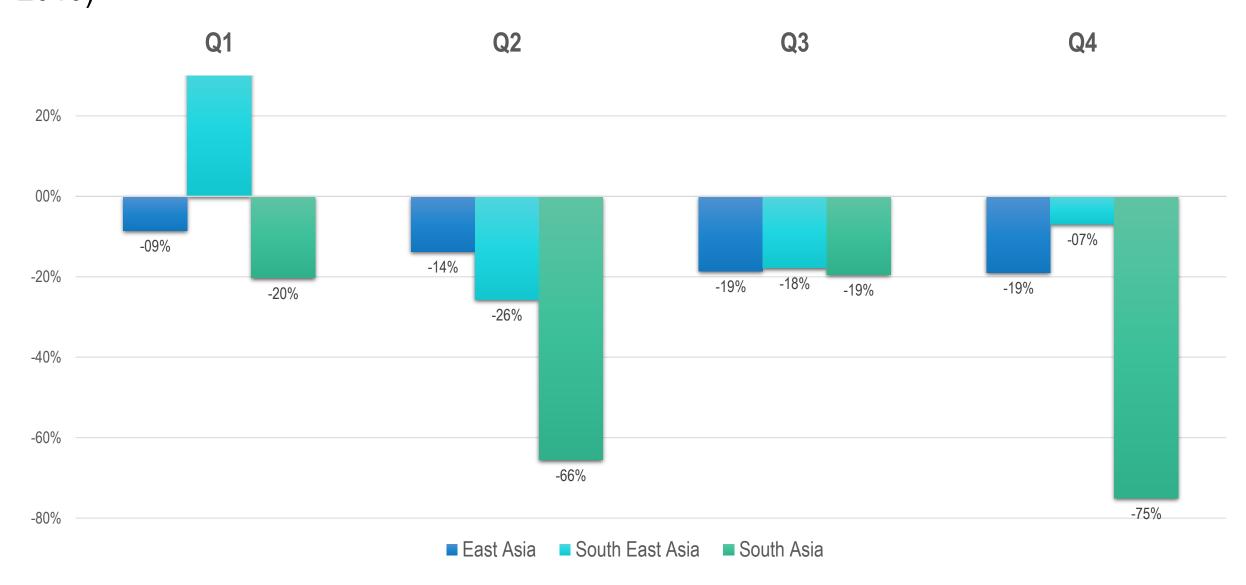
Passenger vessel calls in 2020: Asia vs Globe (% change over 2019)



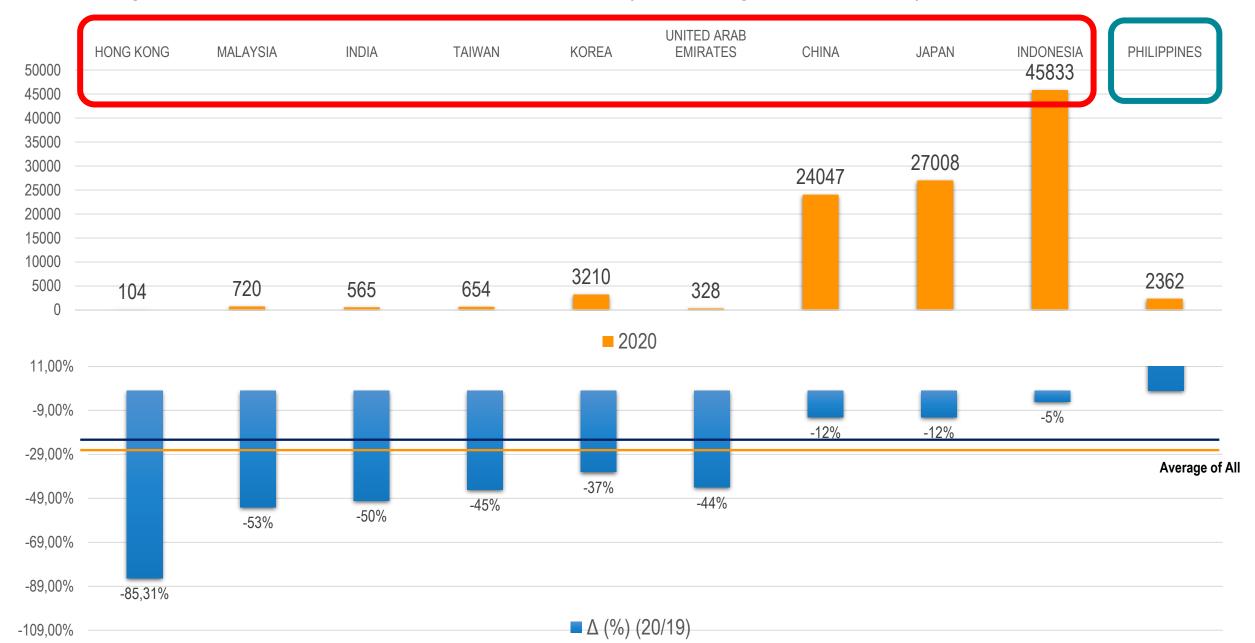


Passenger ships calls in 2020: S/E/S-E Asia Intra-Regional dynamics (% change over 2019)



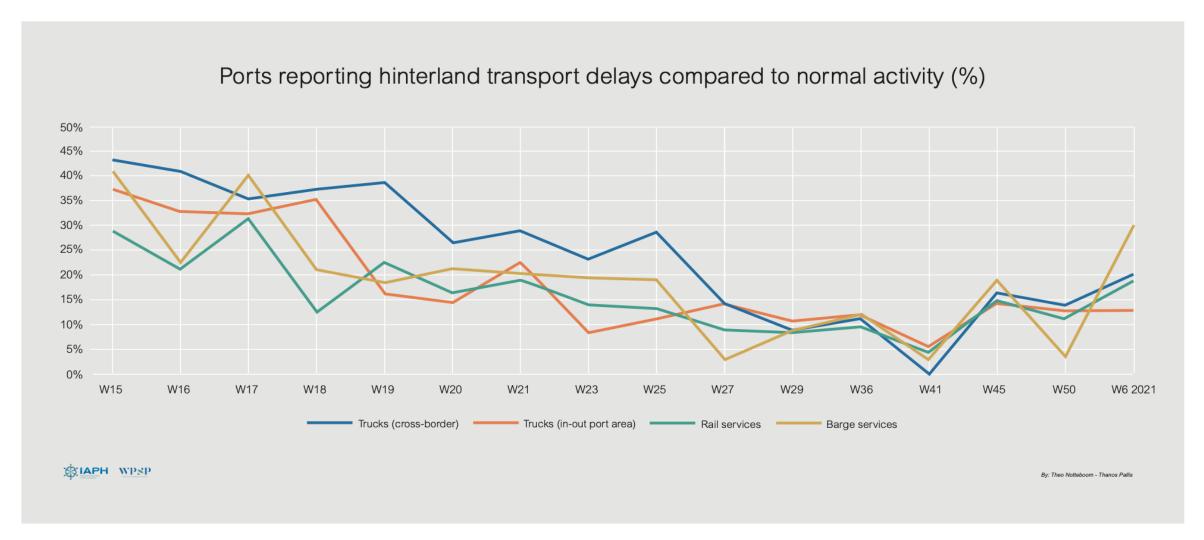


Passenger ships calls in 2020 per countries (% change over 2019)



Among the most critical challenges of all: Hinterland delays













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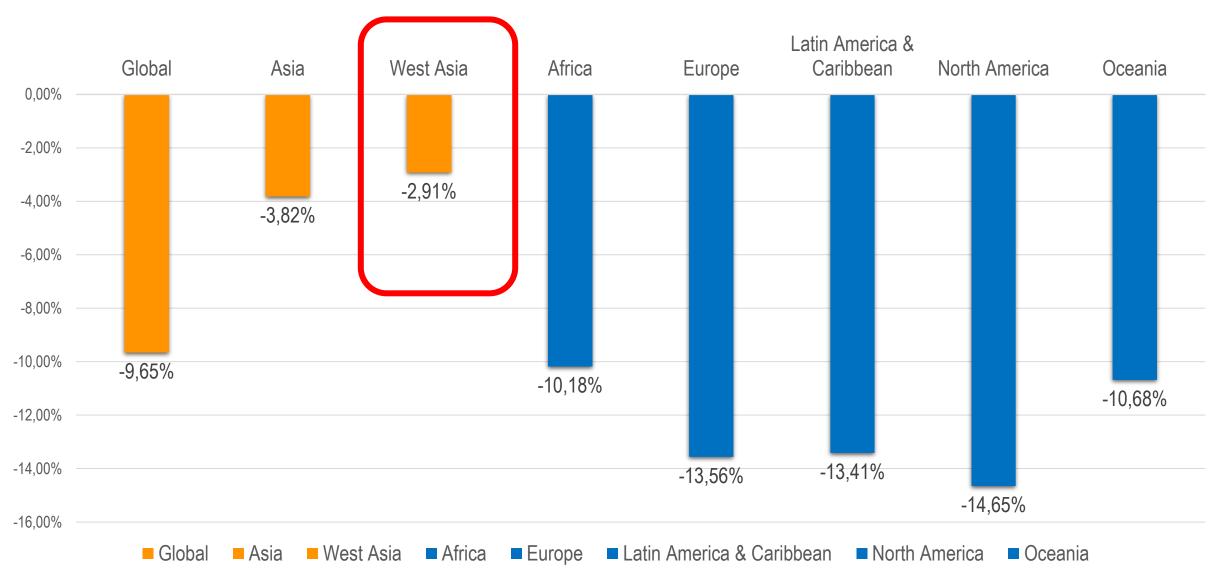


COVID-19 and Maritime Transport: Disruption and Resilience in West Asia

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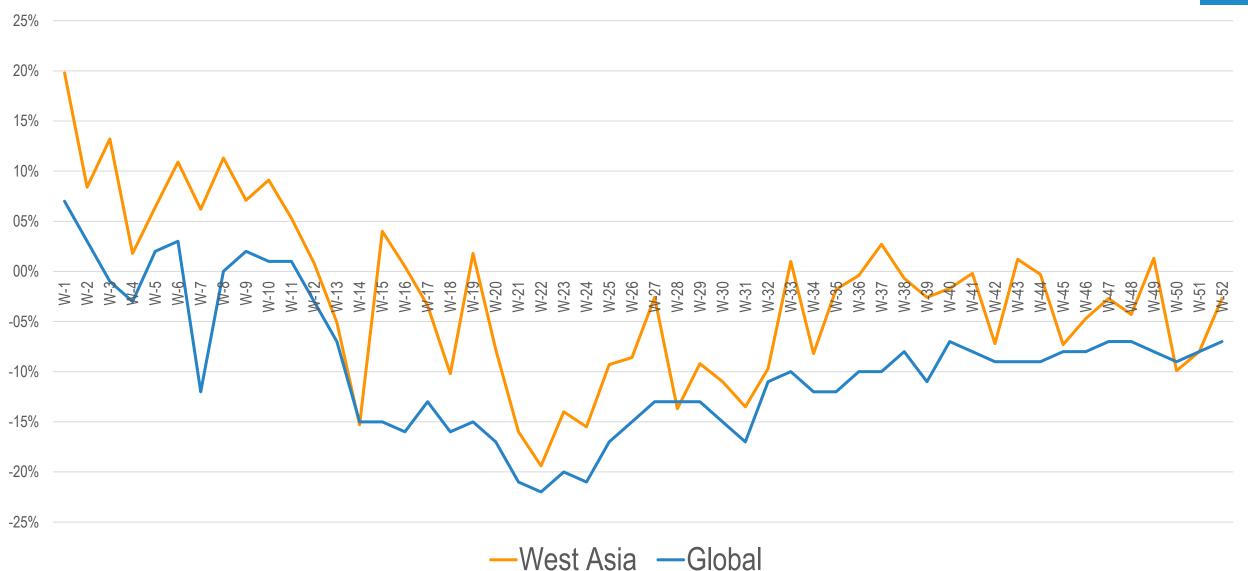
Vessels calls in 2020 (% change over 2019)



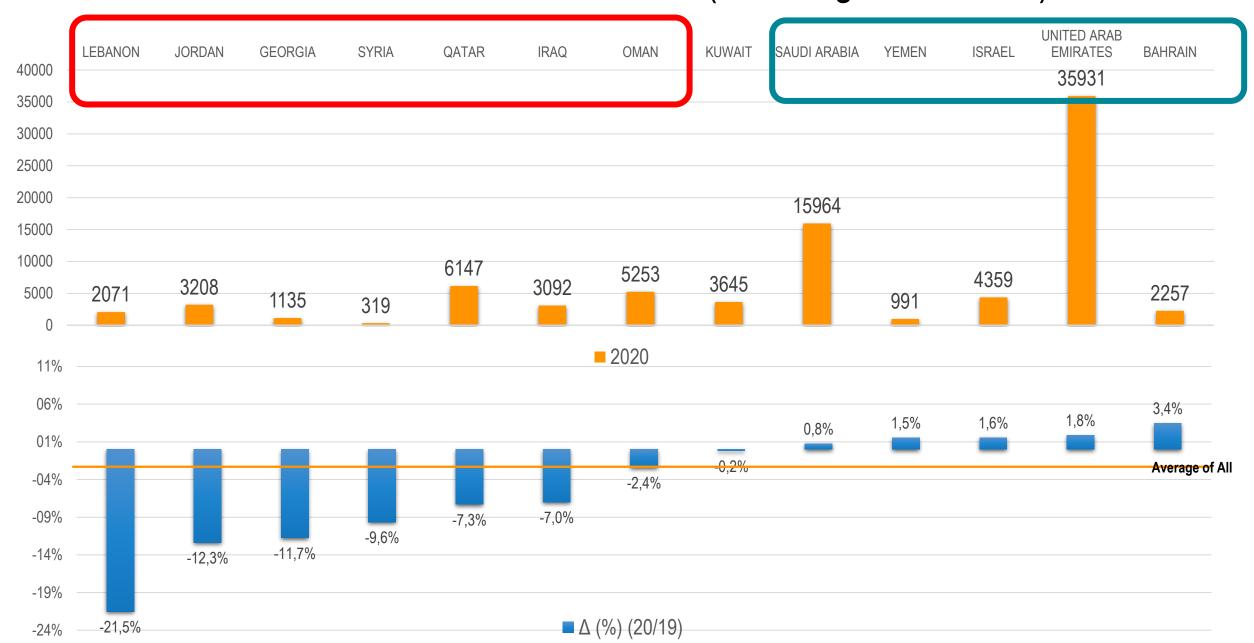


Vessels calls in 2020: Asia vs Globe, per week (% change over 2019)



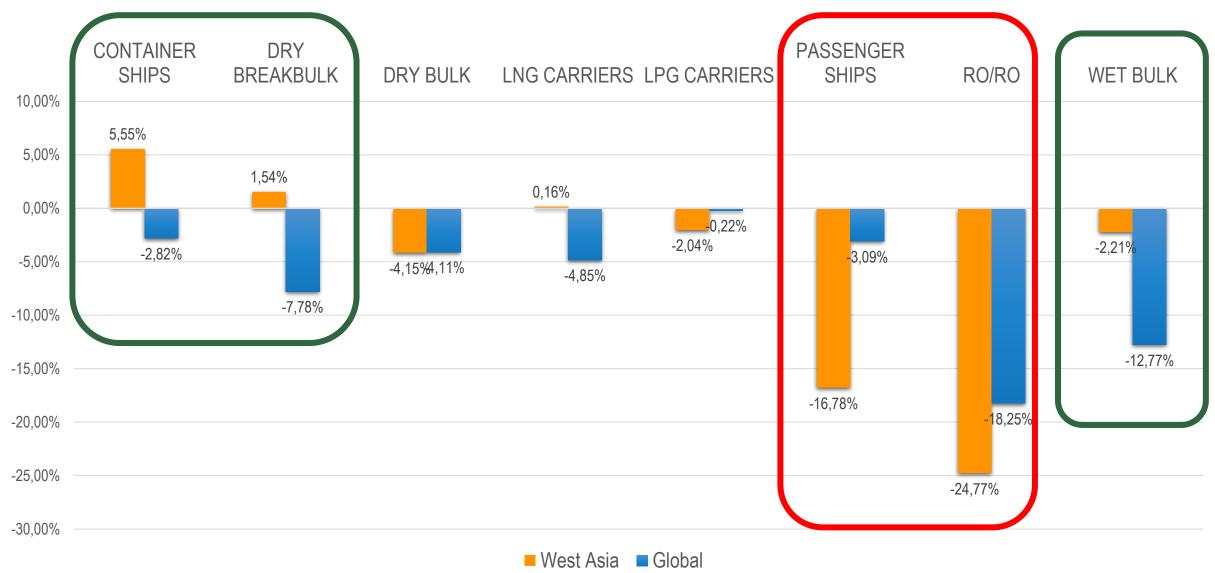


Vessels calls in 2020: West Asian Countries (% change over 2019)



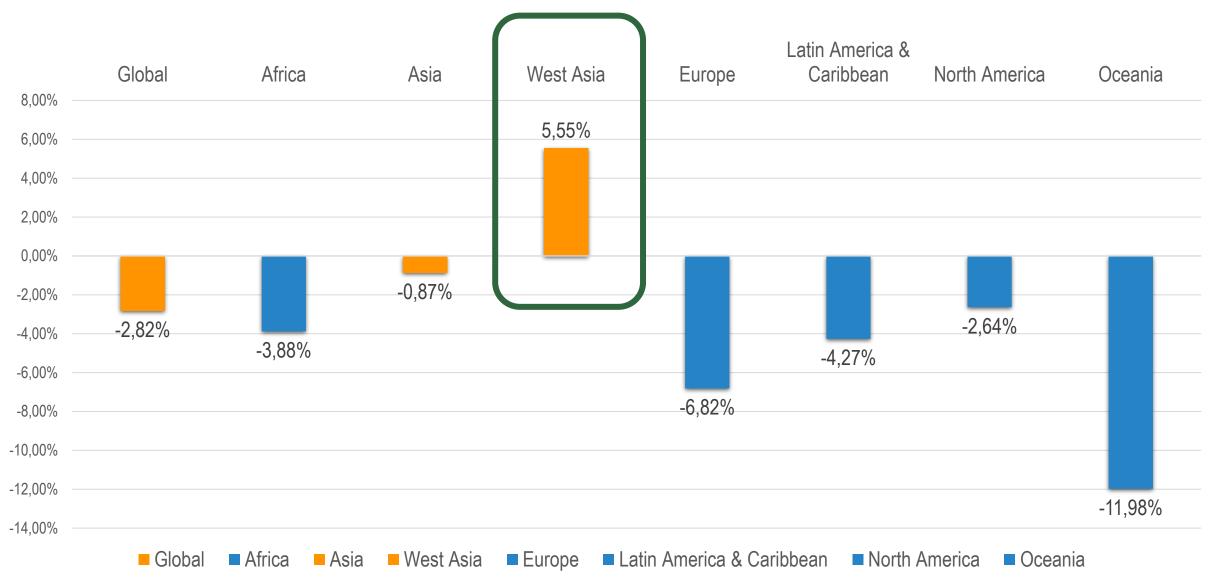
Vessels calls in 2020: West Asia vs. Globe (% change over 2019)





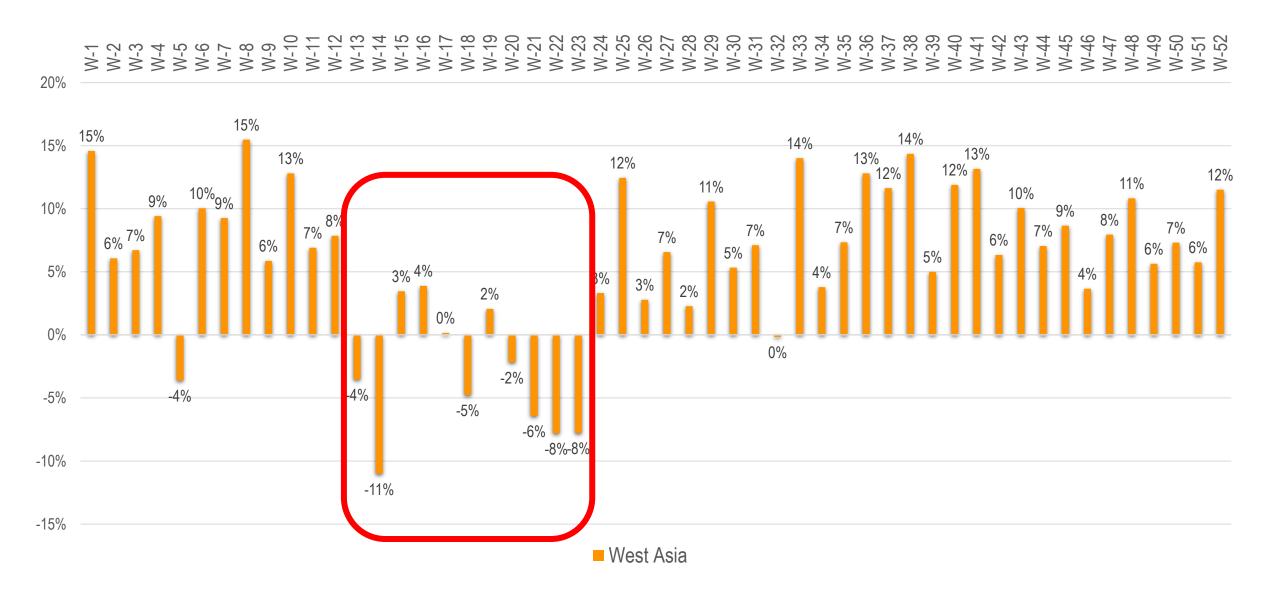
Containerships calls in 2020: Asia vs Globe (% change over 2019)



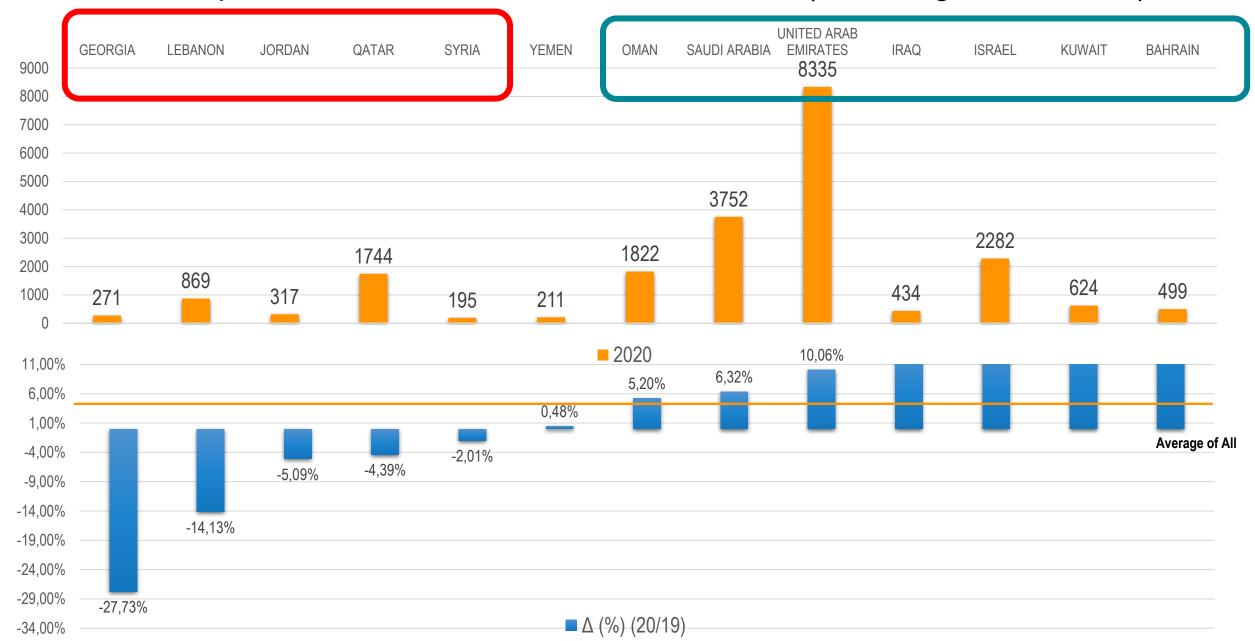


Containerships calls in 2020: West Asia (% change over 2019)



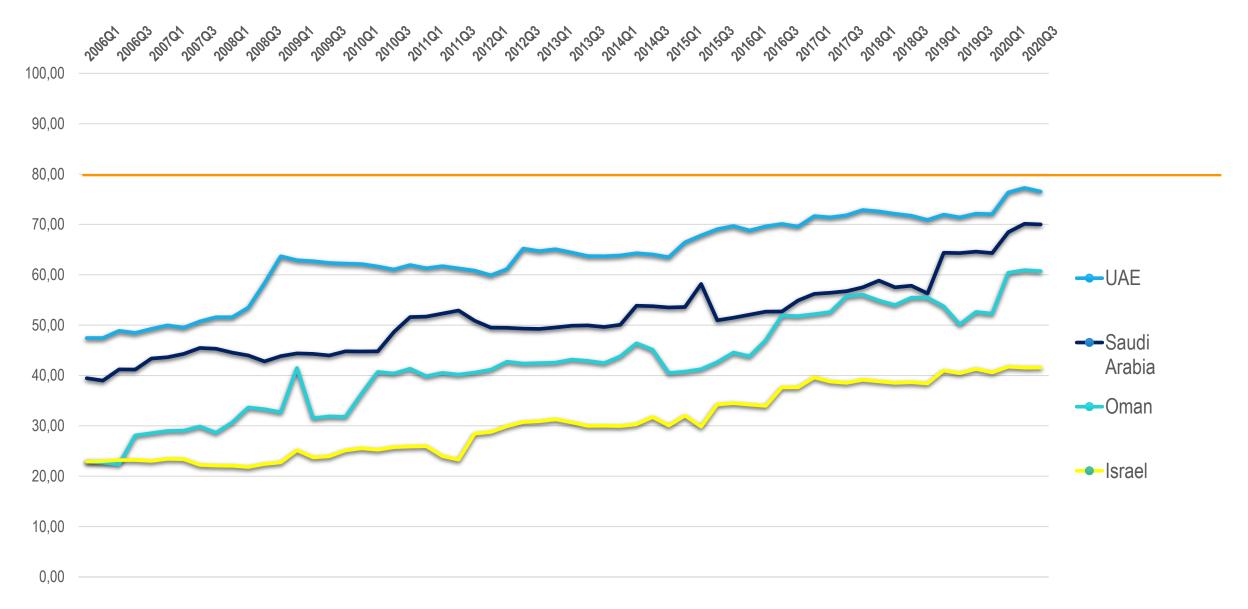


Containership calls in 2020: West Asian Countries (% change over 2019)



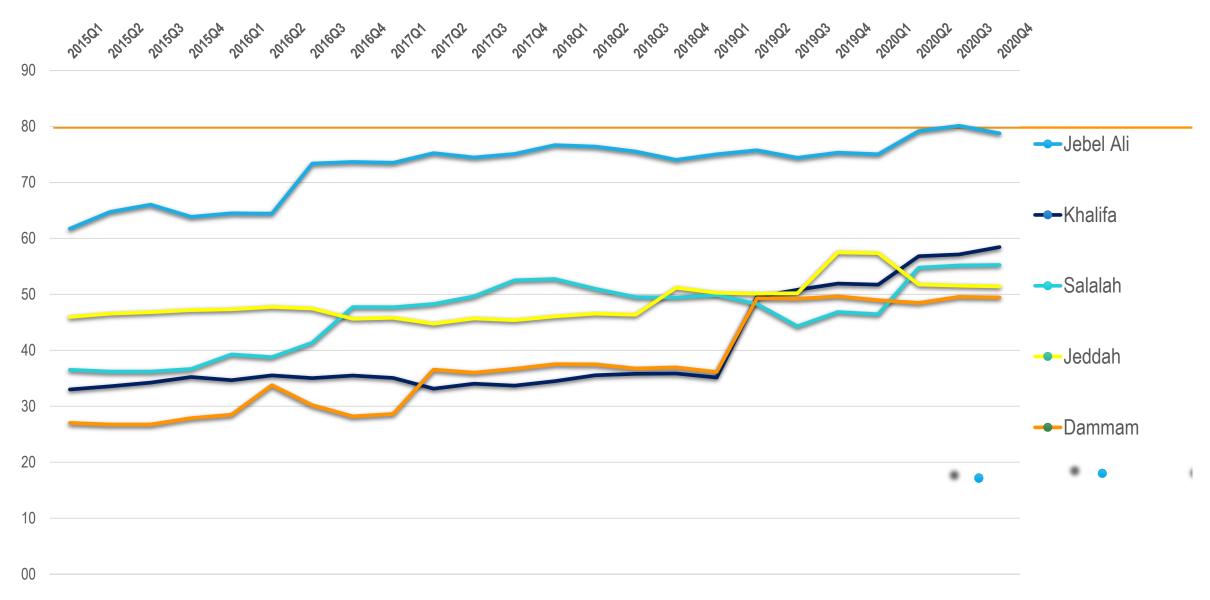
Liner Shipping Connectivity Index (LSCI): Trends in South Asia Countries (2006-2020)





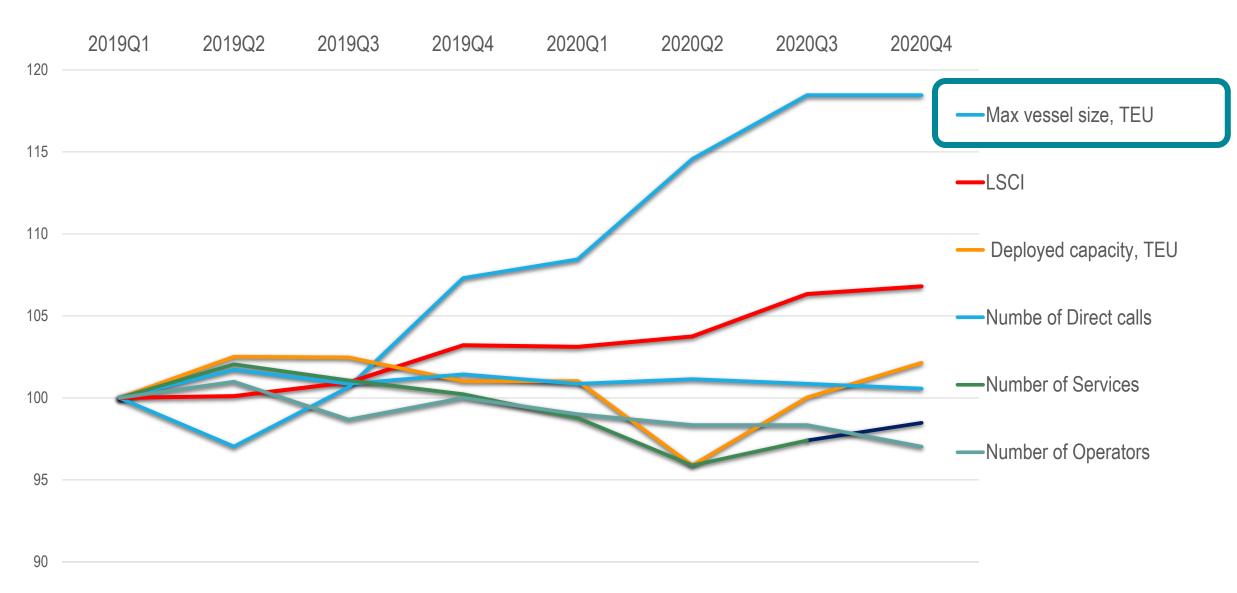
Liner Shipping Connectivity Index (LSCI): Trends in major ports (2006-2020)





Liner Shipping Connectivity Index in West Asia (2019-2020)





Source: UNCTAD (in progress) maritime transport component of the UNDA project "COVID-19 Response on Transport/Connectivity and Trade".

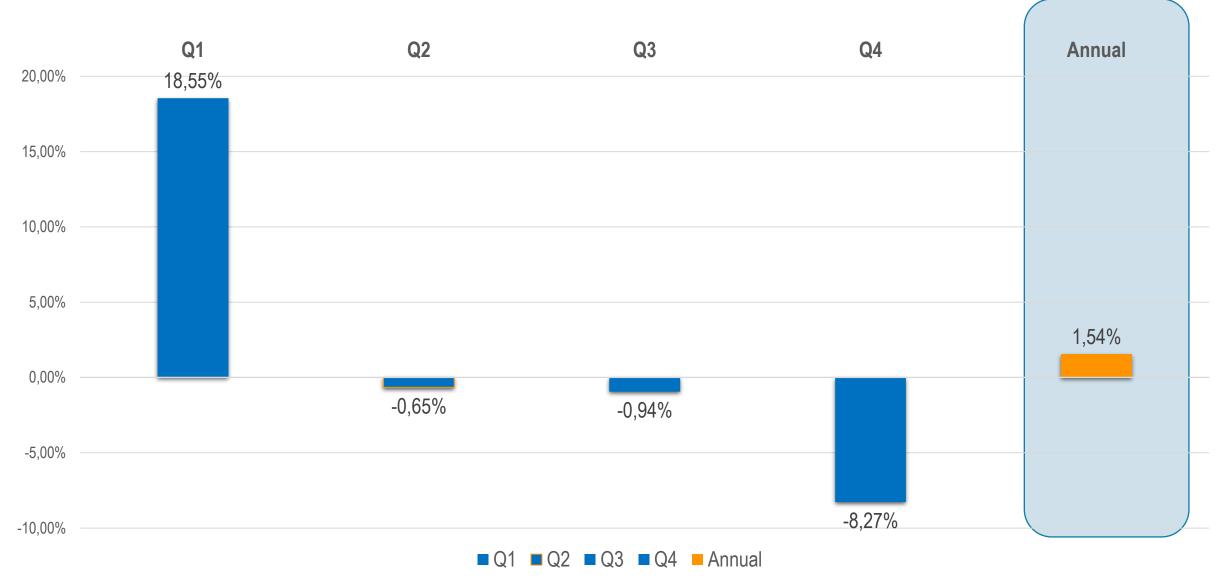
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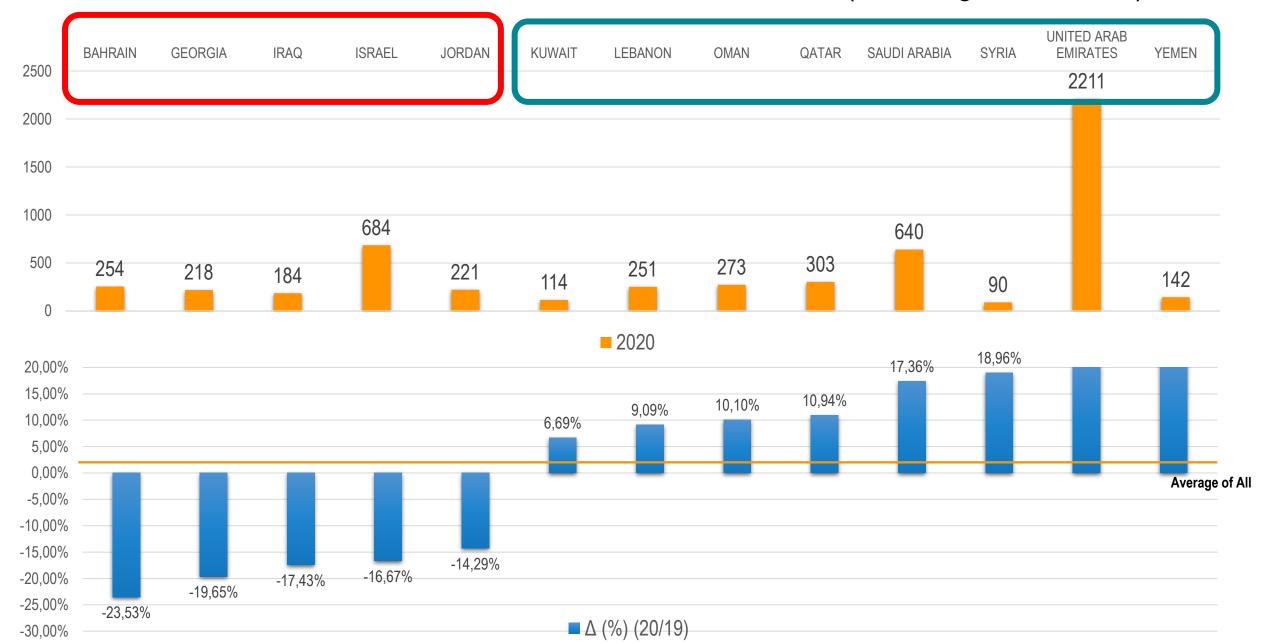


Breakbulk vessels calls in 2020: West Asia (% change over 2019)



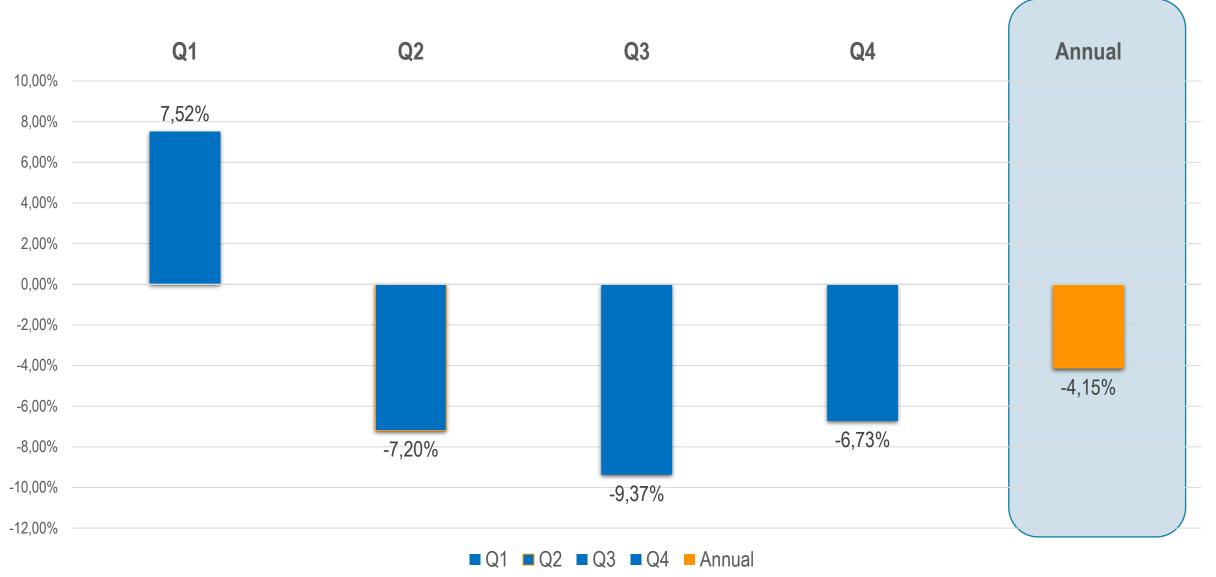


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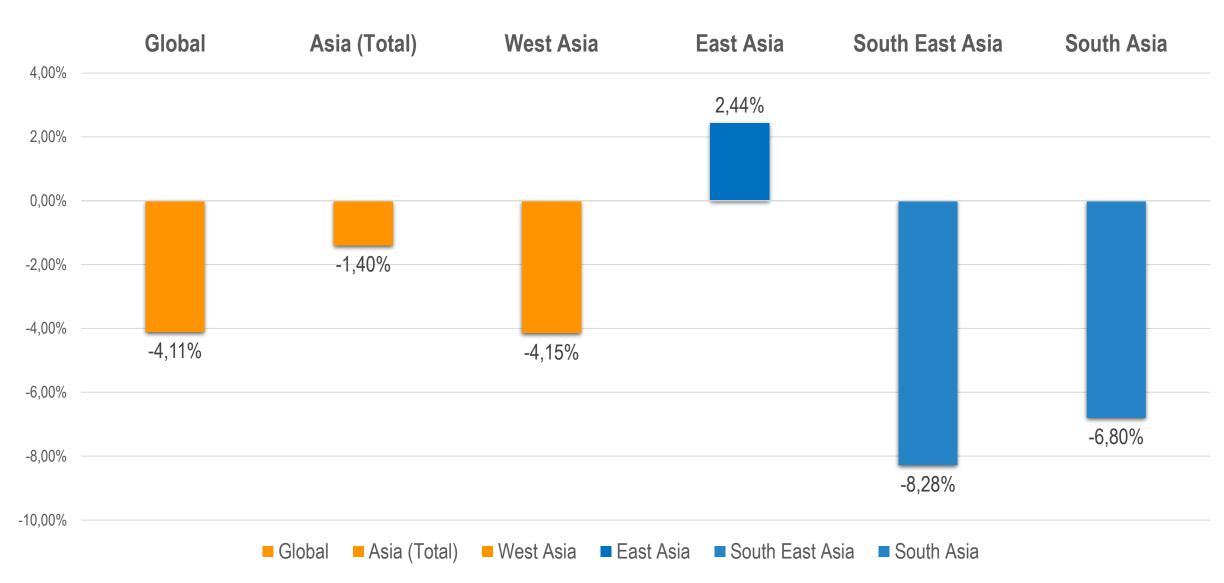
Dry bulk vessels calls in 2020: West Asia (% change over 2019)



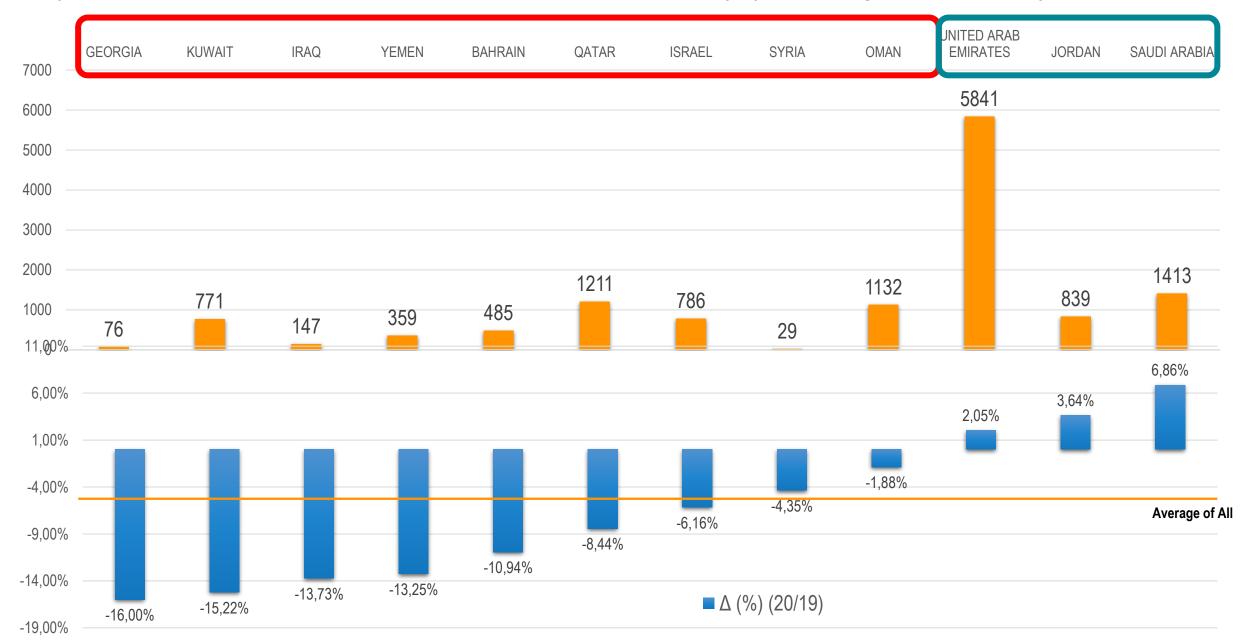


Dry bulk vessels calls in 2020 (% change over 2019)



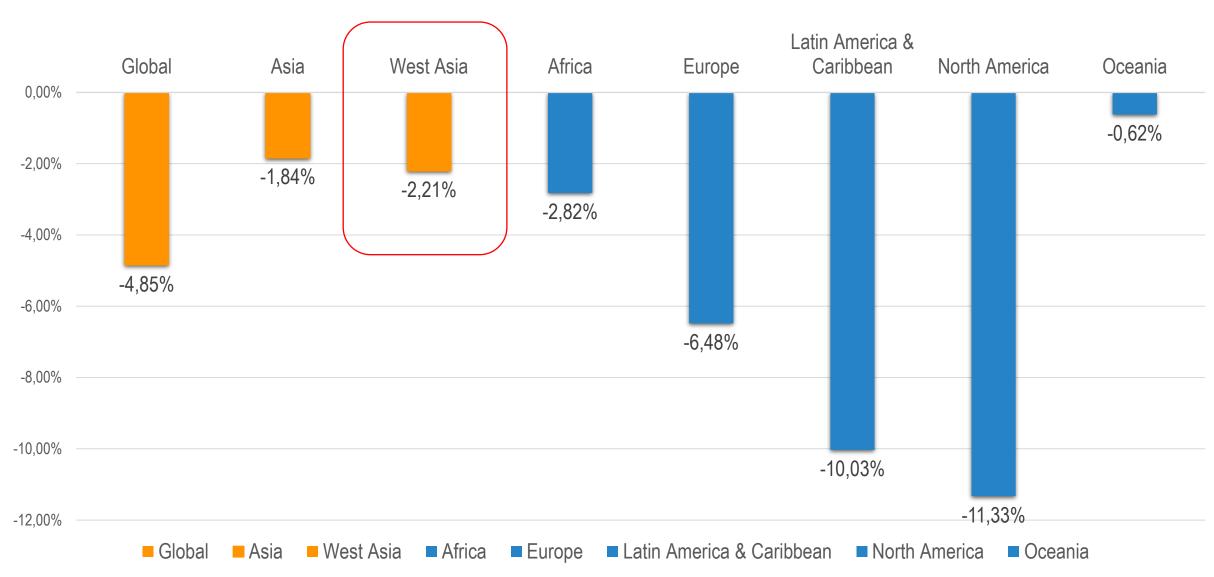


Dry bulk vessels calls in 2020: West Asia per country (% change over 2019)



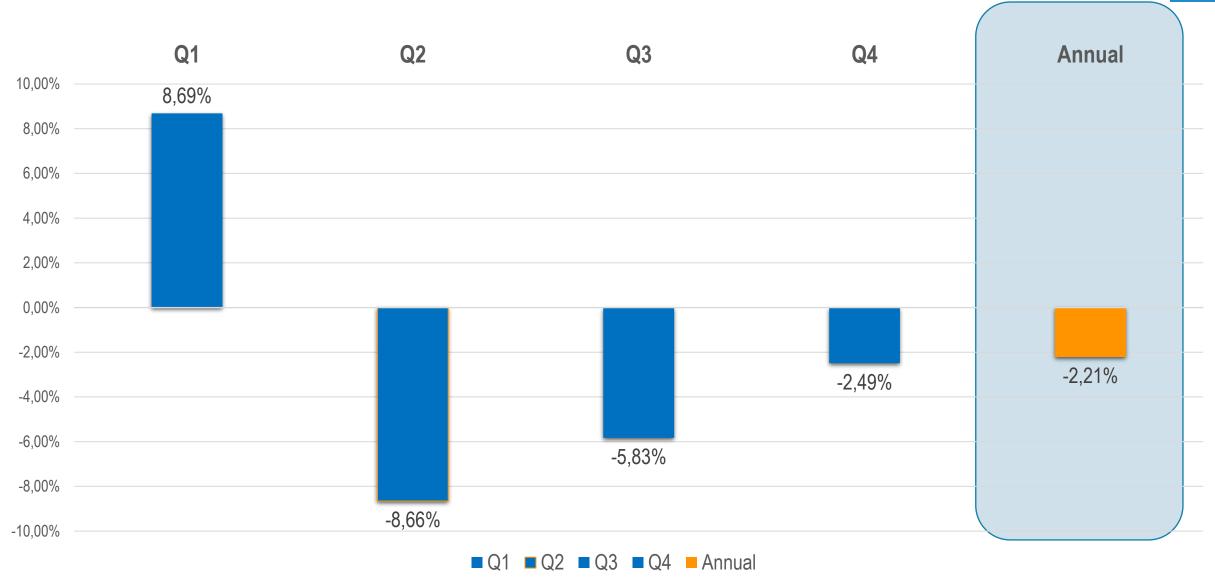
Wet bulk vessels calls in 2020 (% change over 2019)



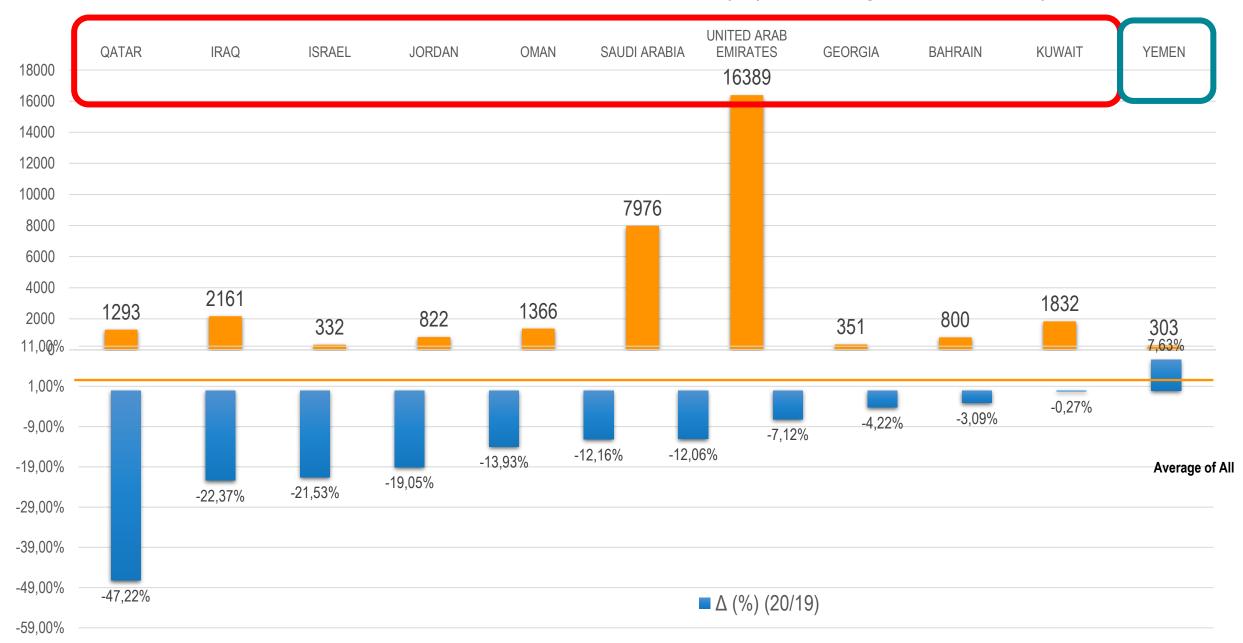


Wet bulk vessels calls in 2020: West Asia (% change over 2019)



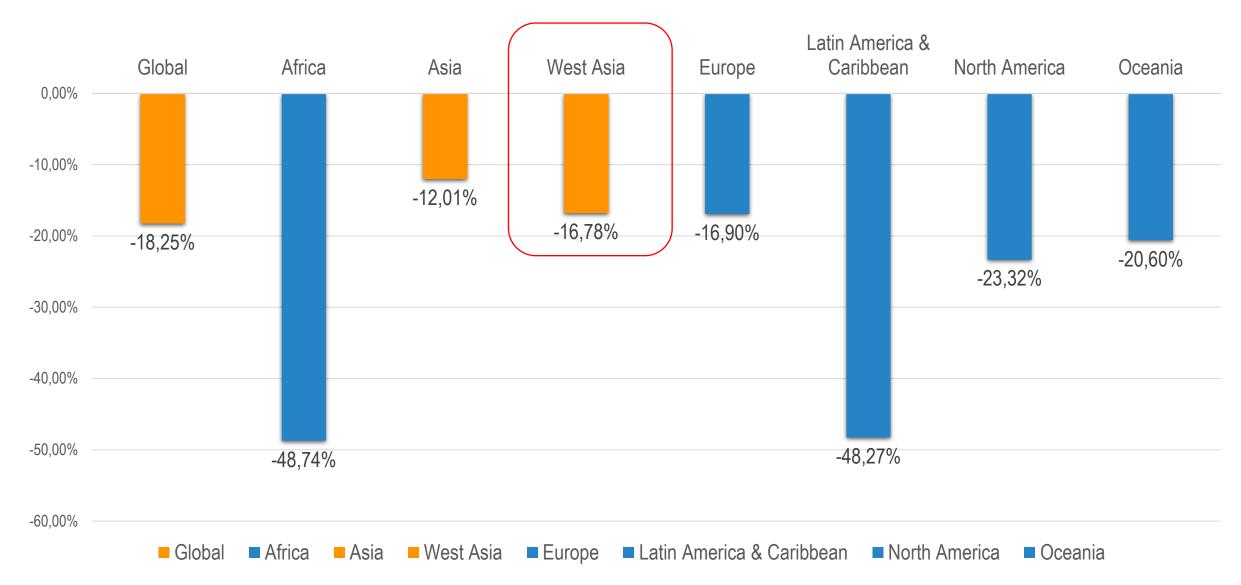


Wet bulk vessels calls in 2020: West Asia per country (% change over 2019)



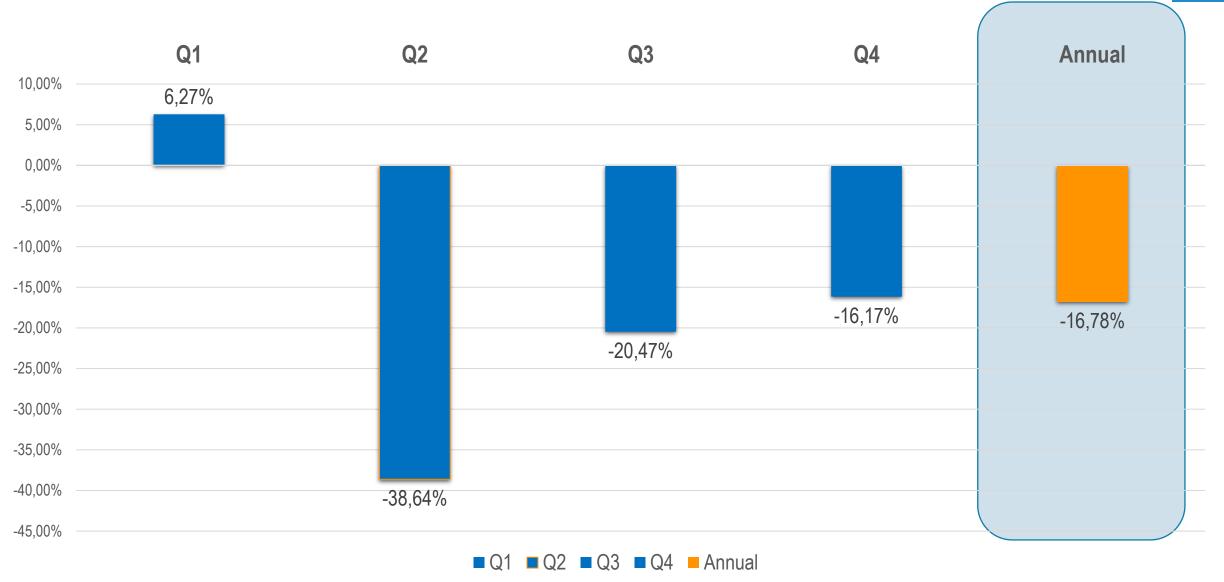
Passenger vessel calls in 2020: West Asia vs Globe (% change over 2019)





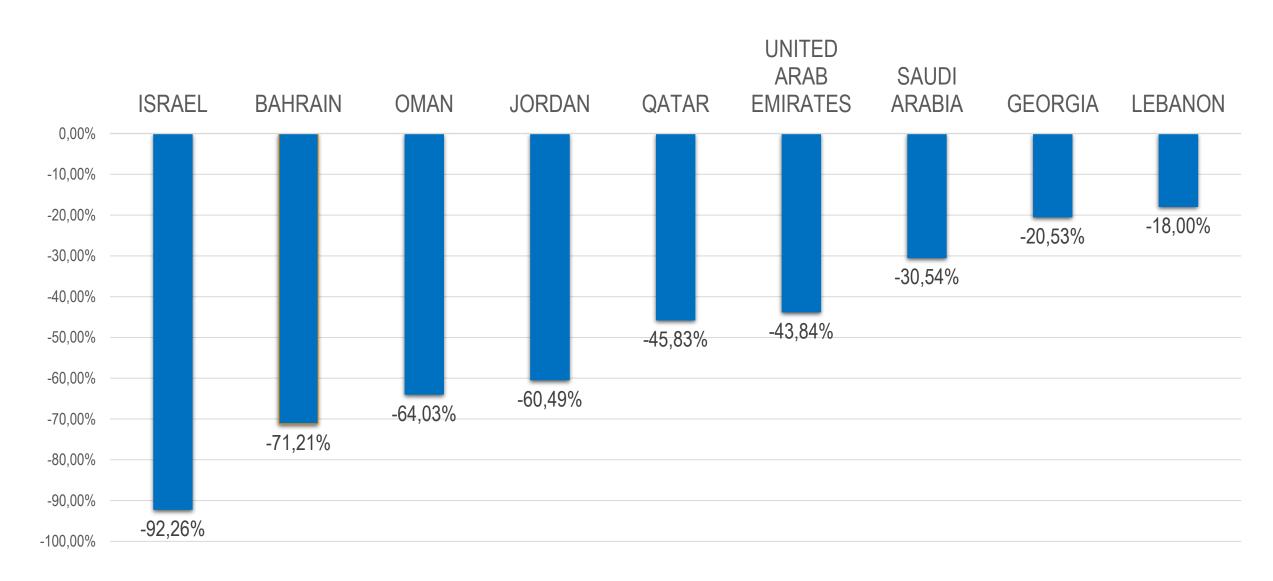
Wet bulk vessels calls in 2020: West Asia (% change over 2019)





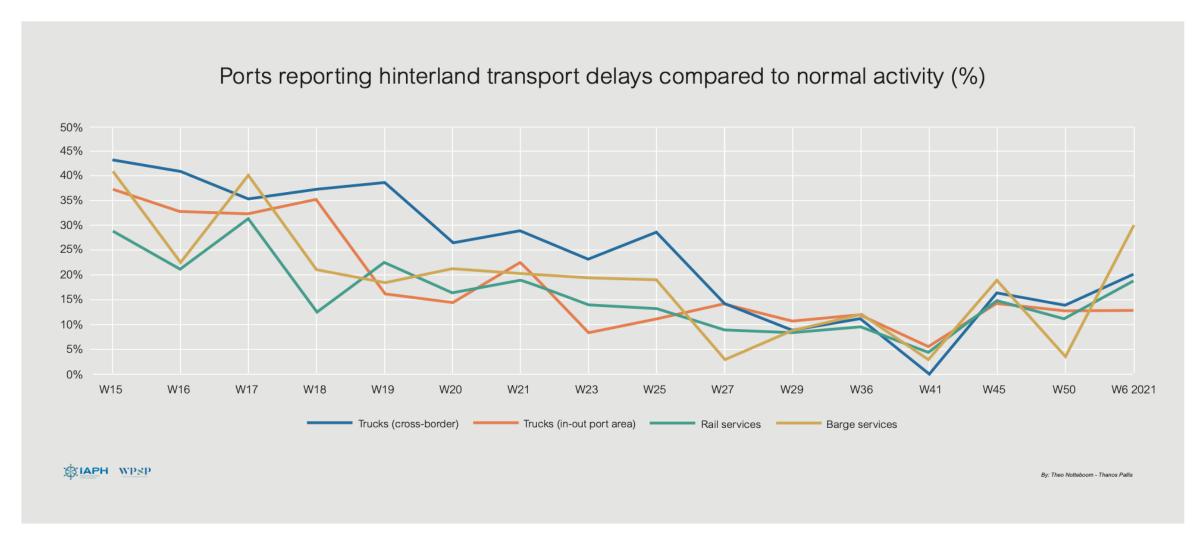
Passenger vessels calls in 2020: West Asia (% change over 2019)





Among the most critical challenges of all: Hinterland delays





Ports: The adaptability process



1

Operational adjustments

- Prioritization of essential services;
- Reorganization of operations & working conditions (sanitary protocols)
- Advancement of digitalization and communication strategies.

2

Communications coordination

- Established, collective actions have been more effective in combating risks.
- Adjustments to governance and communication strategies of entire supply chain.

3

Financial Adjustments

- Manifold implications ports, the "cash cows", had to facilitate both providers and users
- More pronounced difficulties in the case of fully privatized ports.

4

Coordinating Hinterland links

- Shippers and ports work to address land-side operations, but the ability to adapt has not been always effective.
- Digitalization of interactions and information sharing
- Adjustment to public policies

Measures aiming to facilitate adaptation





- 1. Responses have been multi-dimensional.
- 2. Existing contingency plans have facilitated quick responses to the crisis.
- 3. Public policy initiatives have facilitated relief & recovery in the maritime transport sector.



- 1. Reorganization of operations
- 2. Collaboration and coordination among all stakeholders
- 3. Digitalization of interactions and information sharing have been critical to the continuity of maritime transport operations during the pandemic.
- 4. Working & operational adjustment measures that helped the sector adapting have been transformational



- 1. Maintaining landside operations has been the most difficult task for those involved in the maritime supply chain.
- 2. Shippers and ports have worked to address land-side operations, but the ability to adapt has not been always effective.

Resilience of Ports

1. For ports, the financial implications of the crisis are manifold and more pronounced in the case of fully privatized ports.



- 2. Ports continue to invest in infrastructure despite the crisis
- 3. Ports continue to invest in sustainability projects despite the crisis



• The (i) 'crew changes', but also (ii) the management of crew presence at the ports, are two challenges that highlight the need for orchestrating an integrated approach by all.

Ports: The adaptability process



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Key activities carried out by UNCTAD:



- Research and extensive data compilation and analysis to help assess the impact of the COVID-19 disruption on the global and regional maritime transportation systems
- Analysis and identification of relevant response measures introduced by varied stakeholders in the face of the COVID-19 disruption
- Identification of good practices that allowed for effective management of the crisis and maintaining business continuity in the maritime supply chain
- Development of guidance material and training to build capacity and upgrade skills with a view to maritime supply chain resilience-building.

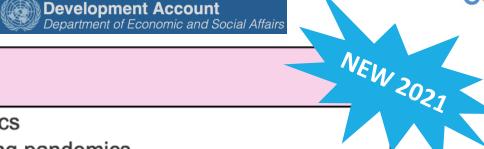
UNCTAD continues to facilitate the building of port resilience capacities











Objectives

Be able to:

- Build port resilience against pandemics
- Keep ports safe and operational during pandemics

Course Objectives

- Implement standards, guidelines, metrics, tools and methodologies to facilitate the flow of goods and service
- Identify suitable technology solutions

Section 1: Crisis Protocol and Communication Strategy

Section 2: Staff Management, Well-Being and Resilience

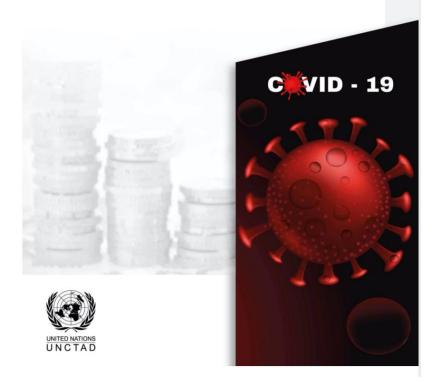
Section 3: Technology Preparedness

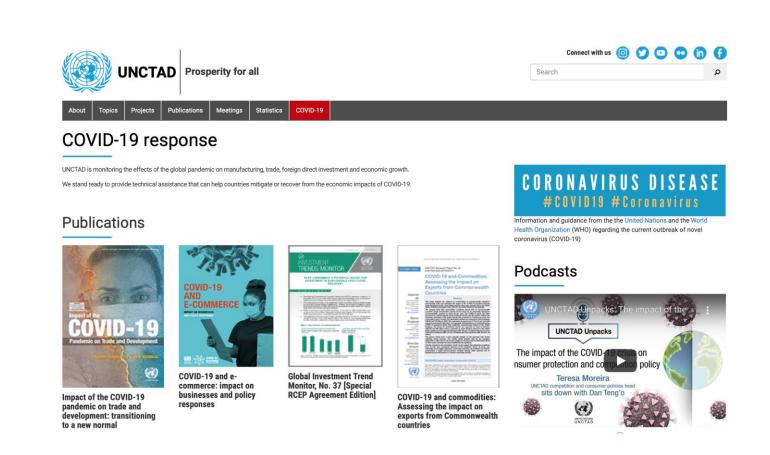
Section 4: Cargo Flow Continuity

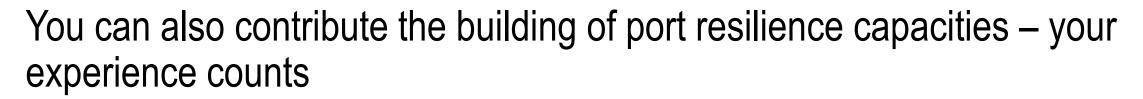
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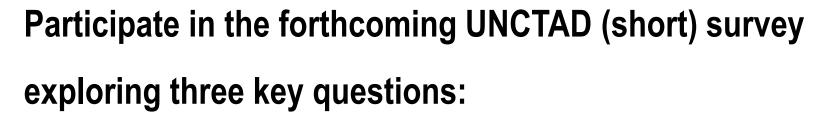














- 1. What has been the impact of the pandemic on your port and the linked maritime chains?
- 2. How did the port & maritime supply chains respond? What measures were taken?
- 3. What kind of capacity was needed to respond efficiently and effectively to the generated challenge?