



Global Economic and Container Shipping Market Outlook

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ABOUT DREWRY: Maritime Research and Consulting Services

Rigorous analysis, practical advice

01

Drewry is the leading international provider of research and consulting services to the maritime and shipping industry

50

Founded in **1970**: More than **50** years continuously charting and assessing the world's maritime markets

90

More than **90** full time employees and associates serving our clients from offices in London, Delhi, Shanghai and Singapore

04

We serve our clients through **four** business units:

Maritime Research

Maritime Advisors

Supply Chain Advisors

Maritime Financial Research



The primary source of market insight, analysis and advice trusted by a global audience of maritime and shipping industry stakeholders.

Research is in our DNA

Drewry Maritime Research

An indispensable reference since 1970, providing rigorous analysis and insightful commentary on past, present and future sector performance.

We offer a comprehensive range of titles and online services that keep our clients up-to-date with developments in every key maritime sector, from dry bulk to chemicals, LPG to ferries.

SECTORS COVERED

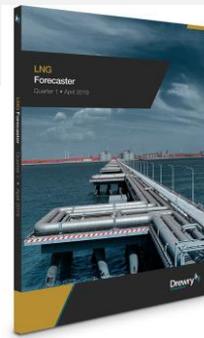
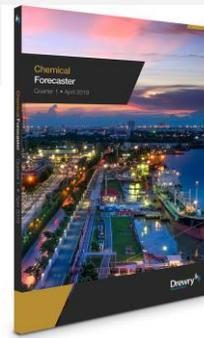
- Containers
- Dry Bulk Shipping
- Ports and terminals
- Tanker Shipping (Product/Crude)
- Chemical Shipping
- LNG / LPG
- Multipurpose Shipping
- Ship Operations
- Reefer

RESEARCH TYPES

- Monthly market insights
- Quarterly market forecasts
- Annual sector reviews and forecasts
- Spotlight analysis/Special situations
- Impact analysis

AUDIENCES SERVED

- Ship owners and operators
- Importers/exporters
- Banks/Financial Institutions
- Port Authorities/Technical operators
- Equipment manufacturers
- Government agencies
- Investors



Ocean freight procurement solutions

Drewry Supply Chain Advisors

Our dedicated team of ocean freight and logistics professionals work with some of the world's largest retailers and manufacturers, helping them benchmark their ocean freight costs and optimise their ocean freight procurement.

We combine the latest market intelligence with powerful procurement technologies and proven best practices to give procurement and logistics operations teams greater visibility and control.

FACT-FIND

Understand market and validate decisions

Freight cost benchmark intelligence, market outlook and peer group insights



IMPROVE

Improve performance and predictability

Best practices and tools and templates to ensure smooth and efficient process



PLAN

Inform strategy and prepare plan

Establish target rates, freight spend budget and develop bid strategy



IMPLEMENT

Outcome-focused approach

Efficient bid administration, better procurement outcomes and carrier management practices



End-to-end control and visibility of



ocean freight procurement and operations

Drewry Maritime Advisors: What sets us apart



Our combination of sector knowledge, rich market insight and commercial awareness enables us to deliver the performance, profitability and competitive advantage our clients seek.



Drewry's competitive advantage: Ports and terminals

Ports and terminals advisory team with board-level experience



Extensive Research Catalogue

- Global Container Terminal Operators Annual Review
- Container Freight Rate Insight (tracked weekly)
- Container Forecaster (Quarterly)
- Container Census & Leasing and Equipment Forecaster
- Equity Research on container ports and shipping covering over 17 companies.



Comprehensive internal databases

- Route Capacity Database: All direct services in major routes (Average ship size, Frequency, Lines)
- Boxbase: Tracks container port throughput of all major container terminals
- Macroeconomic database (GDP, Export and Import etc)
- Drewry Research Database: Container Ship fleet, earnings and asset values
- Proprietary AIS analytics



Relevant sector studies

- Container shipping advisory experience straddles strategic advisory to investment assessment
- Due Diligence of Terminal Asset in Thailand
 - Commercial Due Diligence of a portfolio of terminal assets in Thailand
 - Thailand Container Terminal Market Assessment
 - Terminal Investment Opportunity Assessment
 - Prospects of container ships larger than 18,000 TEU
 - Global container terminal portfolio due diligence of the top container terminal operator



Industry consultant for majority of IPO and Bond

- DP World
- Box Ships Inc.
- Pelindo II
- Pelindo III
- Qinhuangdao Port
- Global Ports Investments
- SITC
- Westports (Port Klang)

Drewry's experience: Malaysia



Project: Review of Coal Shipment Planning and Scheduling

Client: **Malaysian coal importing company**

Description: The client imported over 30 million tonnes of coal. It sought Drewry's assistance in reviewing its coal shipment planning, port and scheduling process. It entailed review of contract of affreightment charter party, planning and scheduling process and benchmarking it against international best practices in other ports. It also entailed dedicated coal jetty capacity assessment. Drewry also made recommendations to enhance capacity of the coal jetty as well as to improve the planning process.



Project: Port scanning for investment

Client: **Confidential**

Description: One of the largest ports in the world was looking to invest in Malaysian ports. In this regard Drewry was appointed to review all the major ports of Malaysia handling container, liquid bulk and general cargo. The review included assessment of port infrastructure, demand assessment as well as market outlook of ports.



Project: Westports IPO

Client: **Westports, Malaysia**

Description: Drewry was part of consortium responsible for the development of prospectus for listing of the stock in Bursa Malaysia. Drewry specifically contributed to independent market section on global shipping and container terminals market. It also involved assessment of container and general cargo market in Malaysia as well as South East Asia.



Project: Review of port development in Malaysia

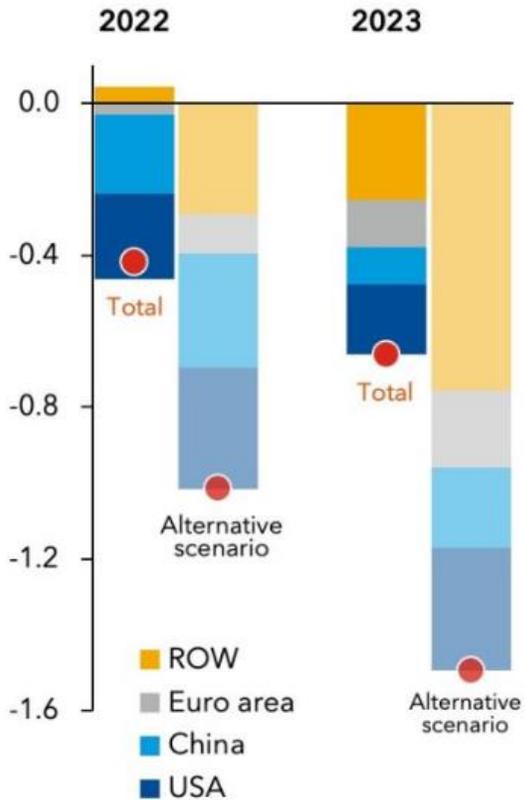
Client: **International investor**

Description: Drewry was appointed to undertake the assessment of ports demand and supply analysis across Malaysia and prospects of ports investment specifically in peninsular Malaysia. This study was focussed on container and multipurpose terminal development. It involved container and general cargo traffic forecast. The country level assessment was done in order to assess investment in a greenfield terminal along with industrial zone.

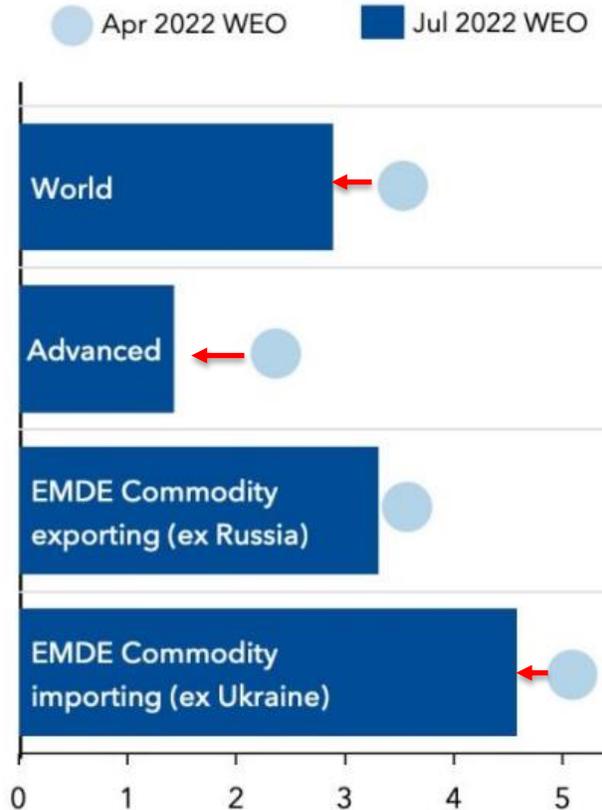
Global headwind continues

Global Economic Growth Slows Amid Gloomy and More Uncertain Outlook

Growth revisions
(percentage points; year over year)



2023 Real GDP growth
(percent; year over year)



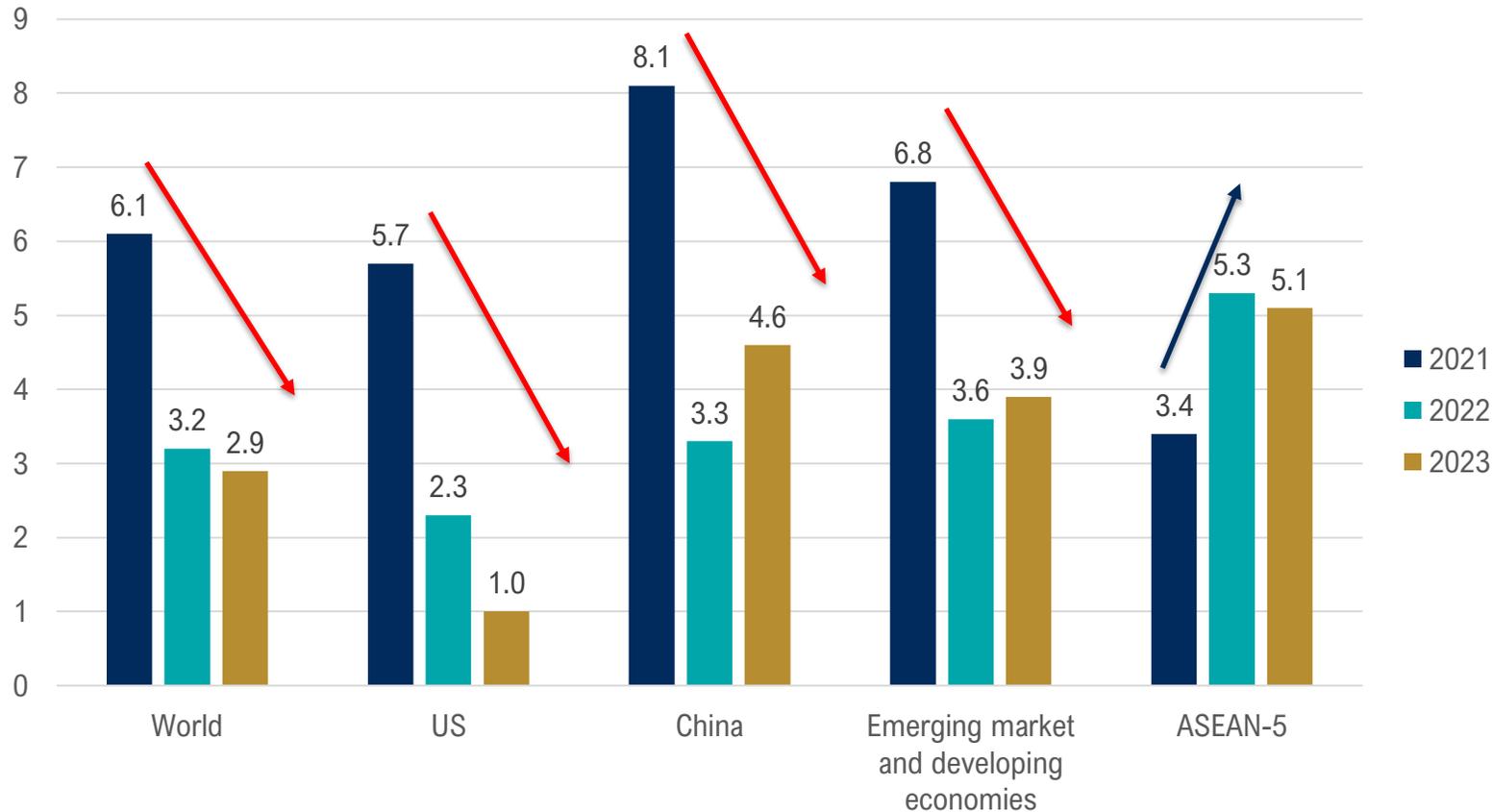
Note: WEO: World Economic Outlook, EMDE: Emerging market and developing economies
Source: IMF

Key takeaway

- Continuing pandemic
- Russia's invasion of Ukraine.
- Higher-than-expected inflation (rising food and energy prices).
- Geopolitical fragmentation deepens.
- Worsening financial condition.
- Downward revision in global growth forecasts.

ASEAN defying trend

Real GDP Growth Rate



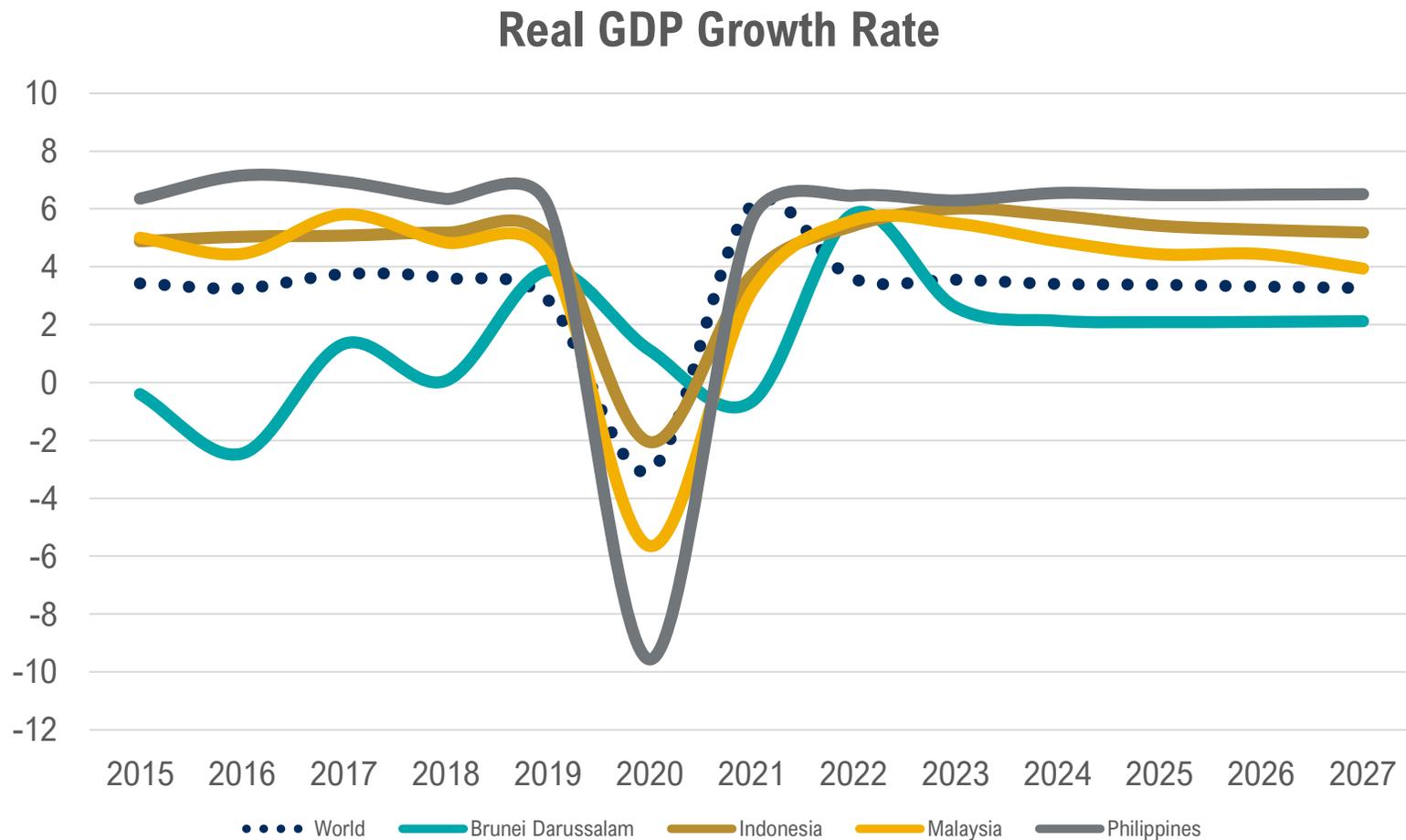
Key takeaway

- Global real GDP growth slashed for 2022 mainly driven the major economies.
- However, ASEAN growth still expected to remain robust.
- Headwinds in Emerging market and developing economies.
- ASEAN to grow at 5.3% in 2022 and 5.1% in 2023.

BIMP countries Economic growth

Key takeaway

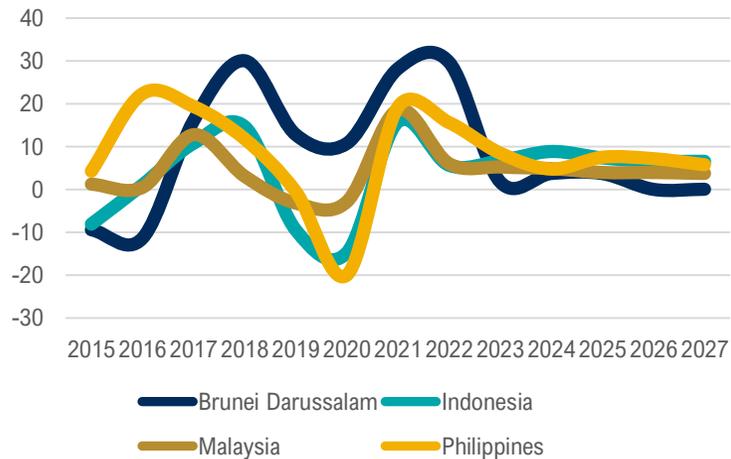
- Most of the BIMP countries are expected to grow above global average growth rate.



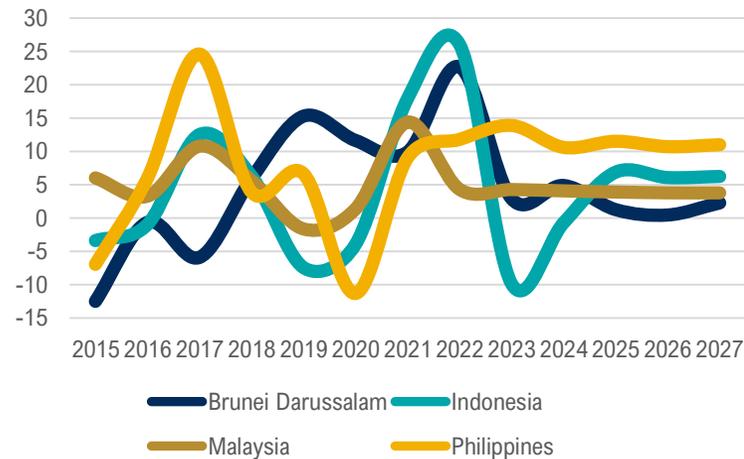
Note: BIMP EAGA : Brunei Darussalam, Indonesia, Malaysia and the Philippines. East ASEAN growth area
Source: IMF

BIMP countries: volume of import/export of merchandise goods

Volume of Imports of Merchandise (% yoy growth)



Volume of Exports of Merchandise (% yoy growth)

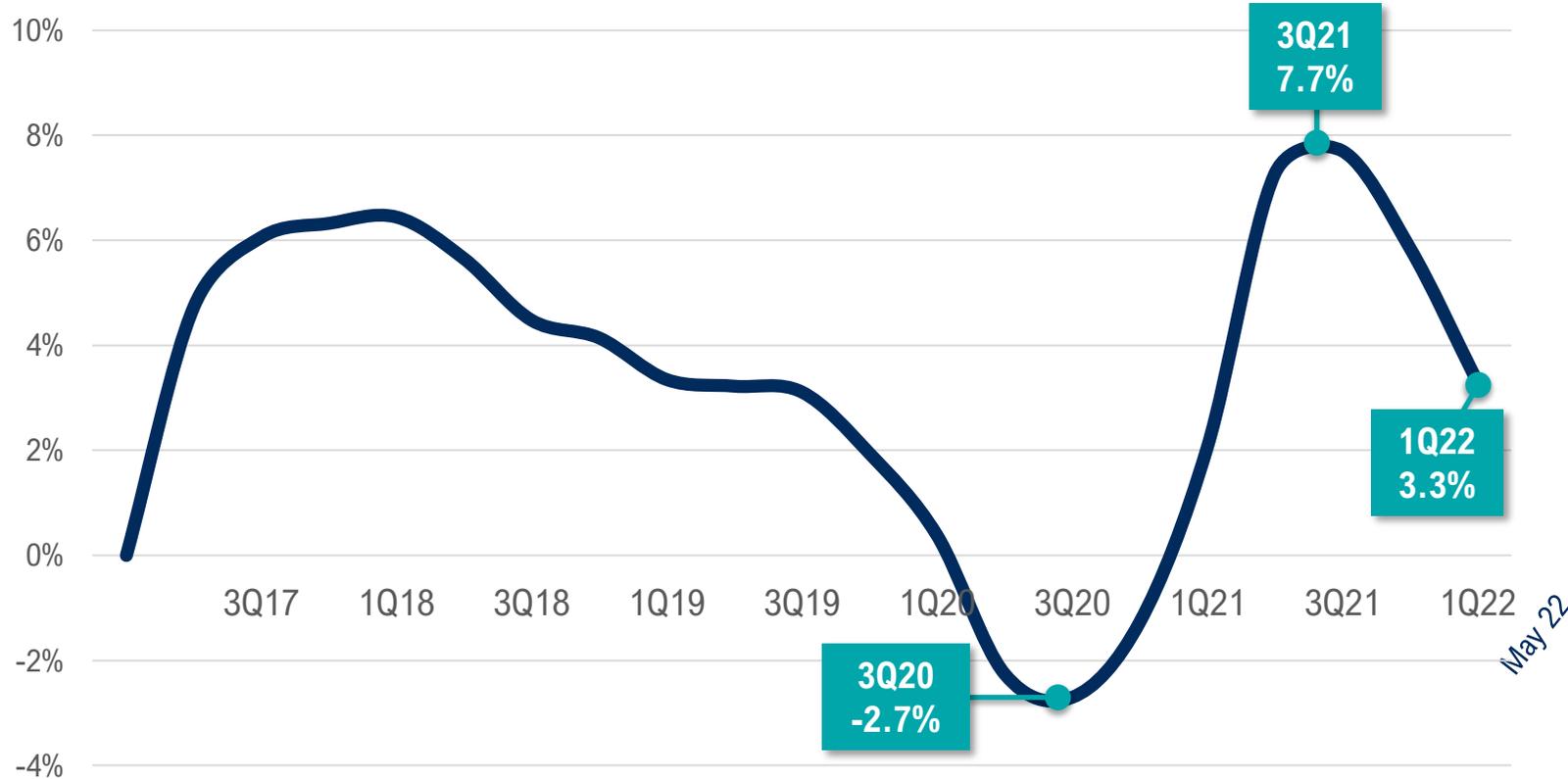


Key takeaway

- Globalisation has slowed since the global financial crisis.
- Varying views on how this will change in future – will we enter a phase of ‘slowbalisation’ – i.e. globalisation will increase but at a much slower pace.
- Covid, supply chain disruption and growing geopolitical risks are putting sourcing strategies in focus.
- Volume of import/export of BIMP is near long term trend growth.

Container port: Global growth rate slowing into 2022

Global Container Port Throughput
Rolling 4-quarter average growth rate



Note: The Drewry Container Port Throughput Indices are a series of calendar adjusted volume growth/decline indices based on monthly throughput data for a sample of over 235 ports worldwide, representing over 75% of global volumes. The base point for the indices is January 2012 = 100.
Source: Drewry

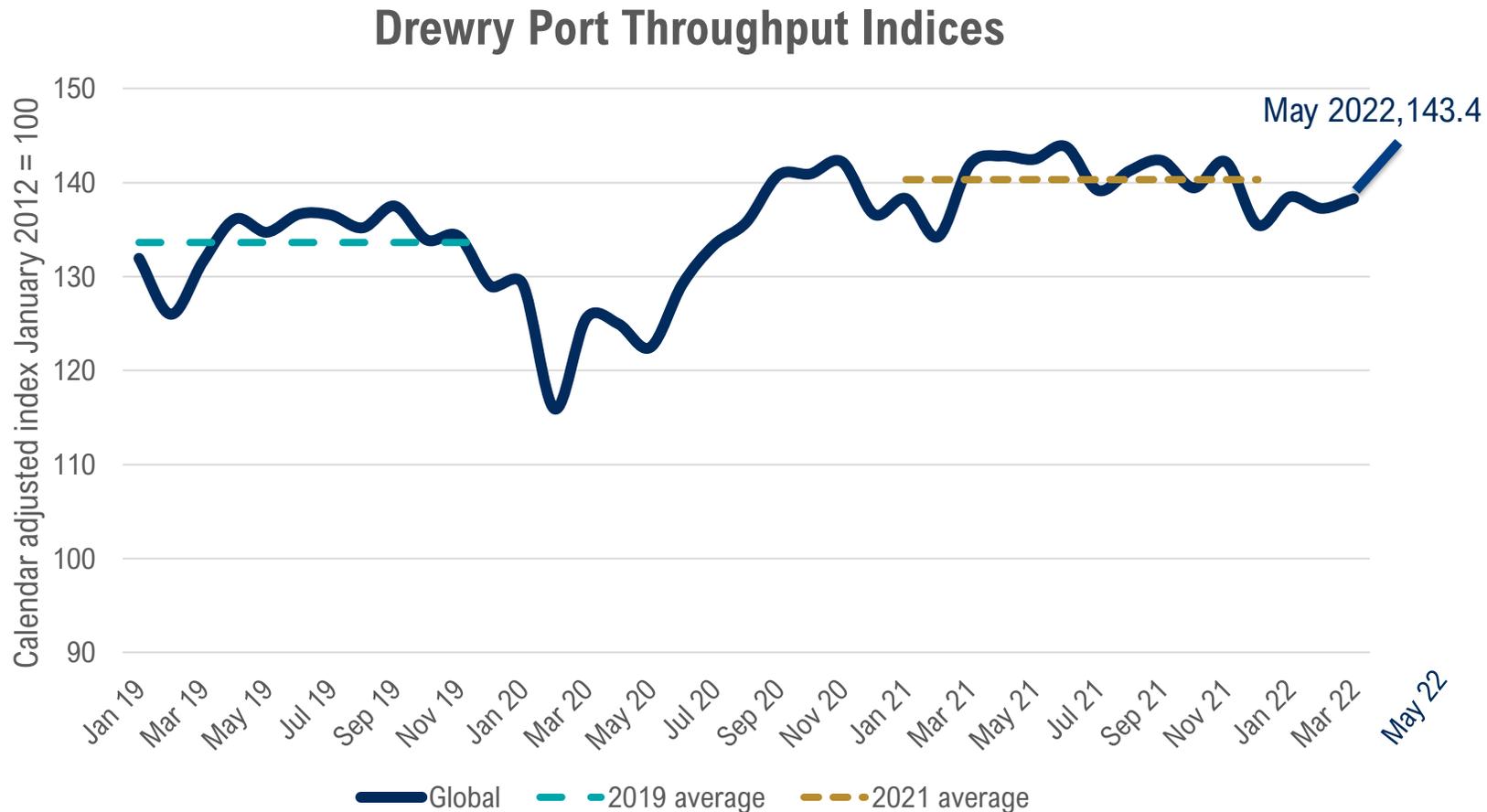
Key takeaway

- Drewry tracks global port throughput on a monthly and quarterly basis.
- Container market momentum has slowed since 3Q21 peak
- Heightened risk of steeper downturn in demand

Drewry port throughput index: Recovery is flattening out

Key takeaway

- Drewry Global Port Throughput Index stabilised around the 140 point mark in 2021, 5% above 2019 average.
- China continues to drive port volume growth.



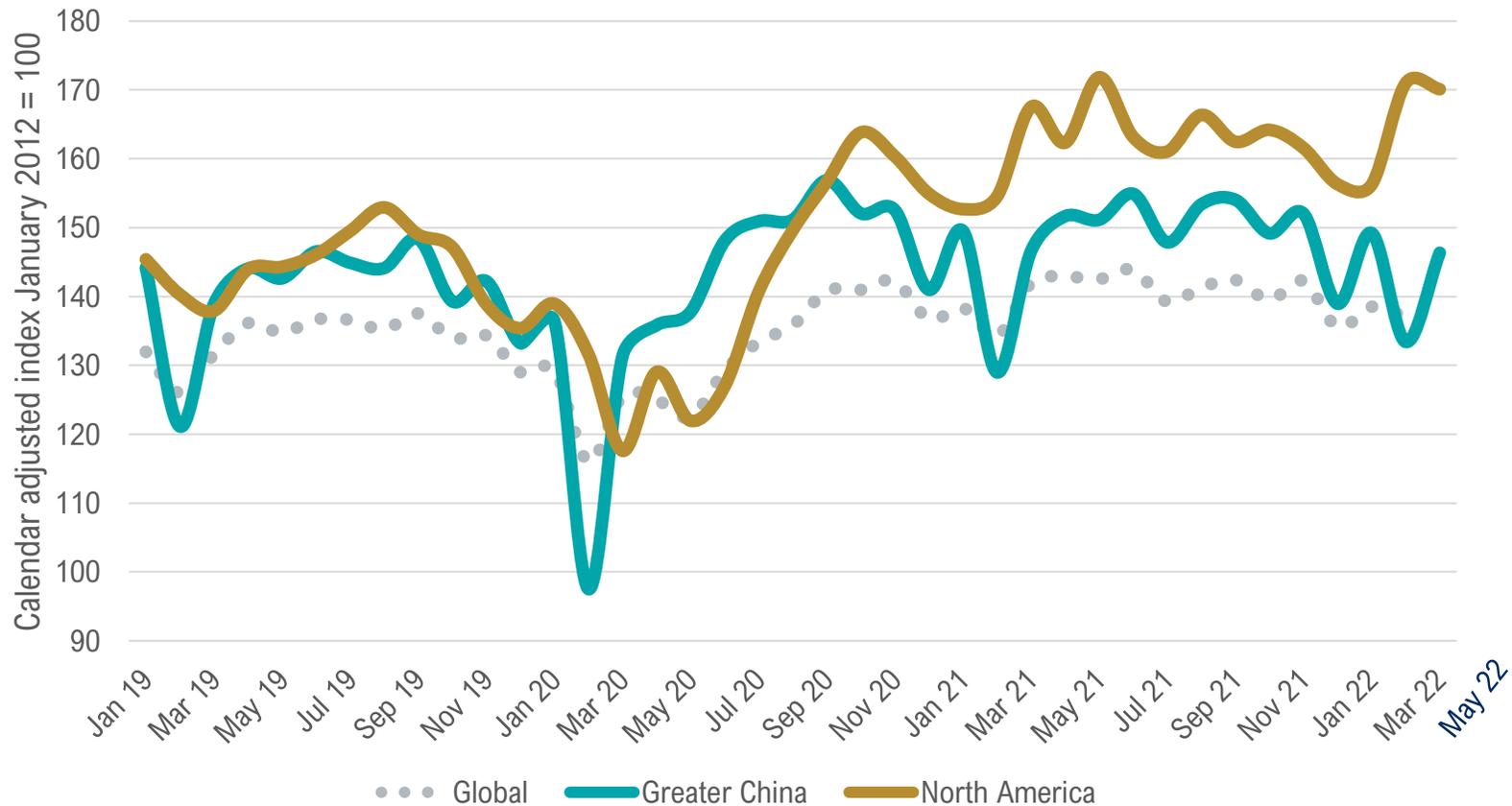
Note: The Drewry Container Port Throughput Indices are a series of calendar adjusted volume growth/decline indices based on monthly throughput data for a sample of over 235 ports worldwide, representing over 75% of global volumes. The base point for the indices is January 2012 = 100.
Source: Drewry

North America and China drove post-Covid boom

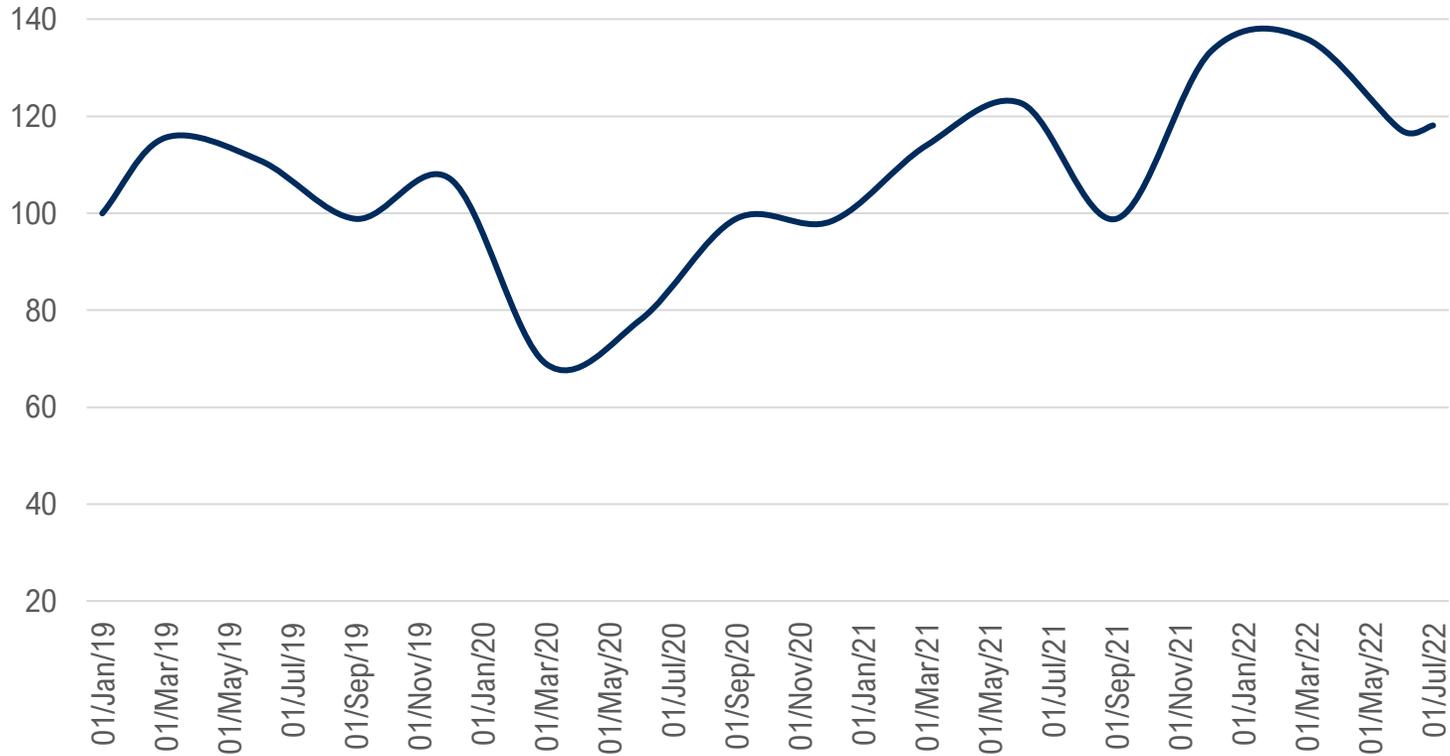
Key takeaway

- Growth post-Covid driven by strong growth in North American demand, driving growth in Chinese exports.
- Drewry North American Port Index 2021 average score +12% vs 2019 average score.
- European recovery more muted.

Drewry Port Throughput Indices



Drewry Container Port Equity Index



Note: Base Year : 1 Jan 2019

Based on share prices of 11 ports namely Cosco Shipping Ports, China Merchant Ports, HPH, Trust. Liaoning Port Co., Tianjin Port, ICSTI, HHLA, Global Ports, Santos Brasil, Westports, SAAM

Source: Drewry Financial Research Services

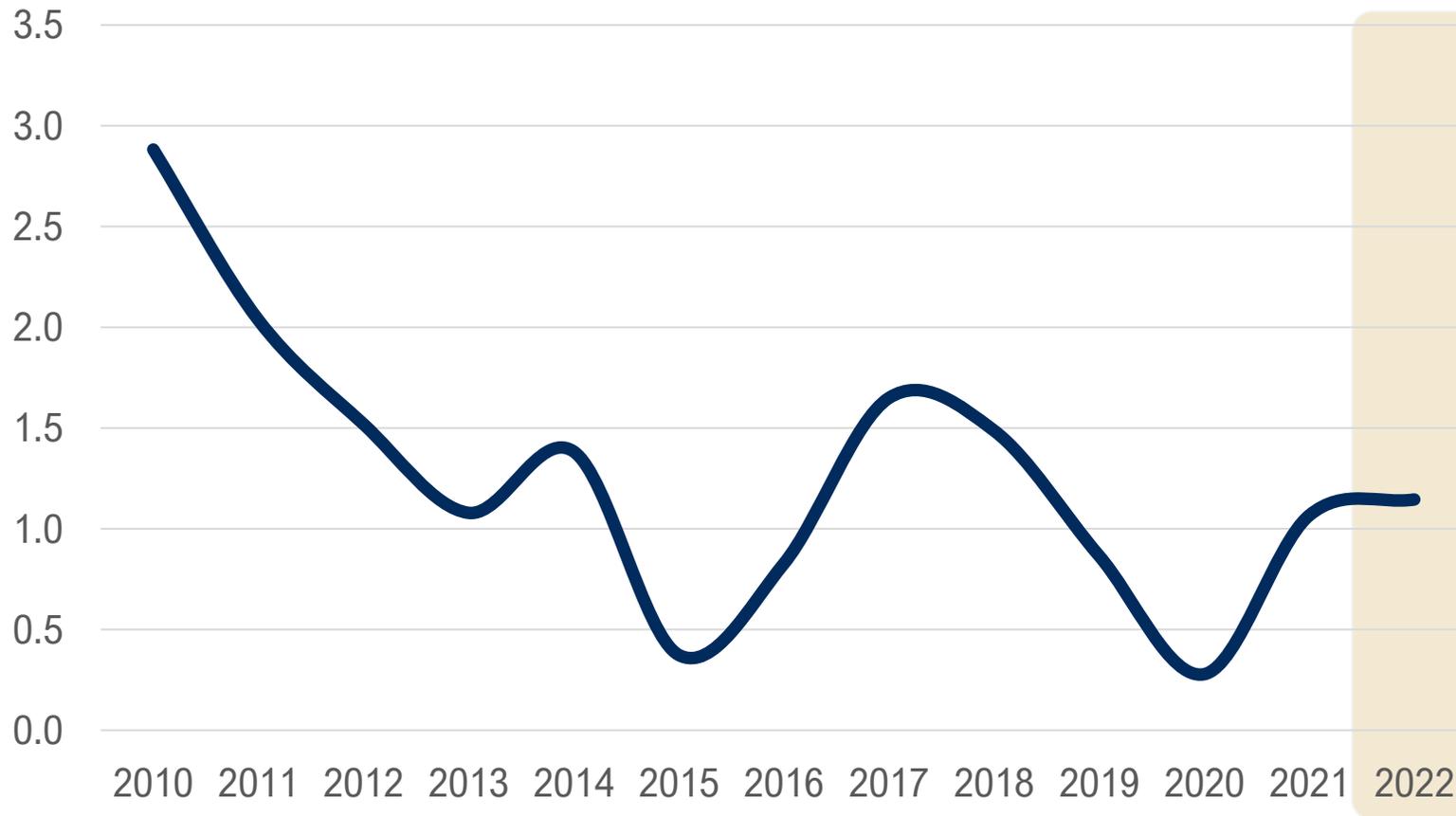


Key takeaway

- Rapid monetary tightening and decade-high inflation in major economies led investors to shun risky assets. As a result, equity markets worldwide plunged and the port sector was no exception.
- In 2Q22, the Drewry port equity index slumped by 13.9%, which more than offset the gains recorded in 1Q22. Cumulatively, the index is down by 15.1% YTD (ending 15 July) due to indirect impact of Russia-Ukraine war.

Market growth on a lower trajectory since GFC

Global Container Trade GDP:TEU Multiplier



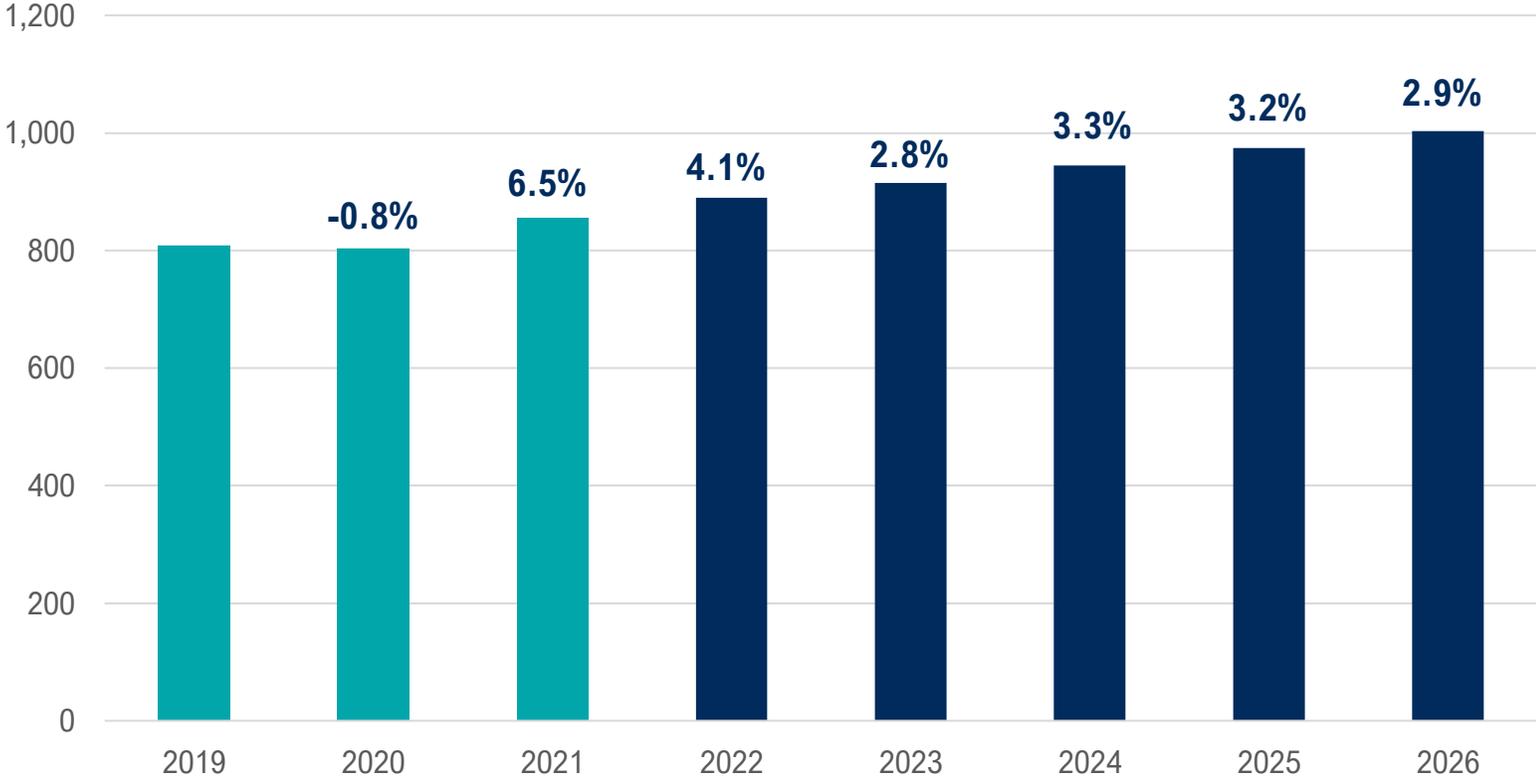
Key takeaway

- GDP to TEU multiplier has dropped since the global financial crisis.
- Now stabilised at around 1:1.
- Mature container market now generally growing in line with global economy.
- Emerging market still has a higher multiplier.

A billion teu by 2026? Looking much less likely now...

Drewry will downgrade its forecast in 2Q22 on back of worsening economic outlook.

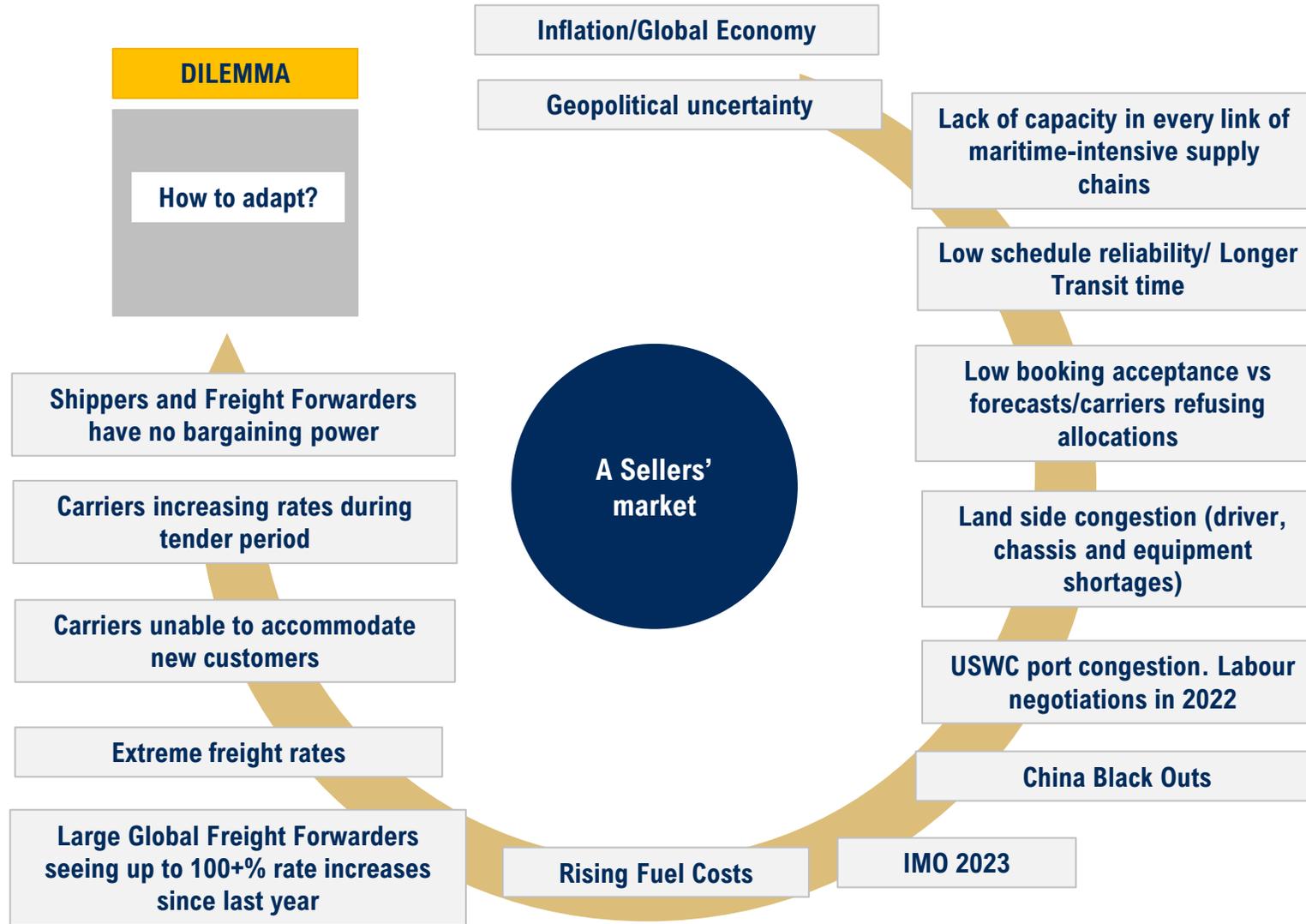
Forecast World Container Port Throughput (mteu)



CAGR 2021-2026

- World: 3.3%
- South Asia 5.9%
- North America 3.2%
- Africa 3.5%
- Asia 3.3%
- Oceania 2.9%
- Europe 3.1%
- Middle East 2.5%

Status Quo: Liner shipping disruption factors



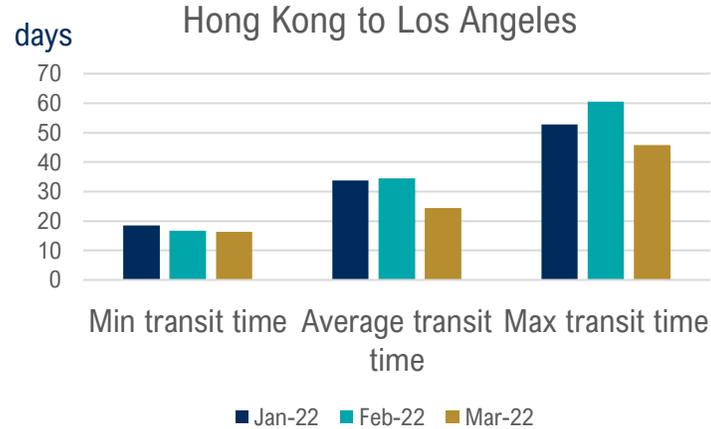
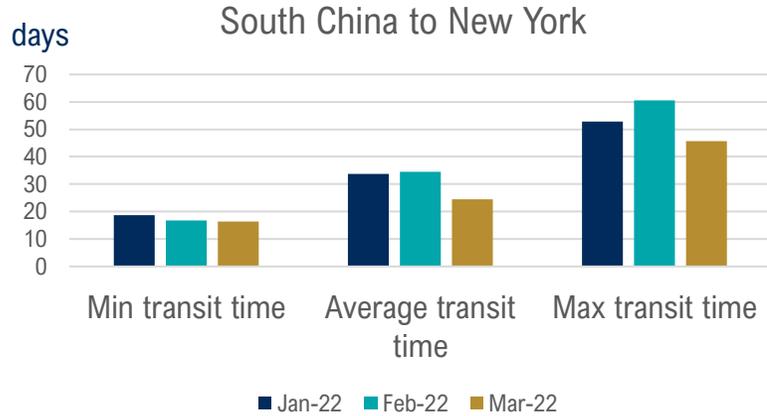
The message being sent to shippers and freight forwarders over the past 18 months has been clear:

“If you want to ship your cargo, you have to pay the price.”

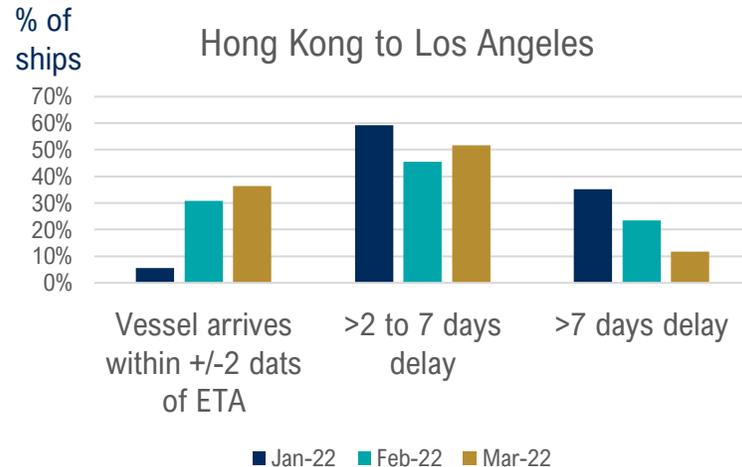
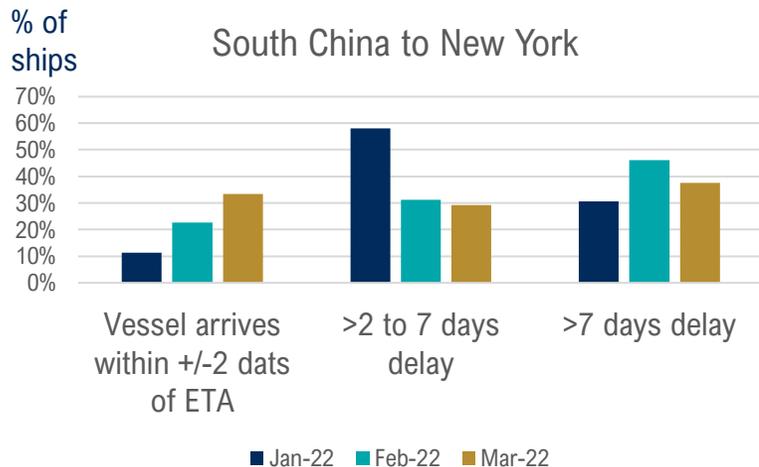
Contingency planning is crucial as the list of supply chain risks remains exceptionally high.

Unpredictable arrivals of ships

Minimum, Average and Maximum Transit Times from Asia to US



Extent of Delays in Ship Arrivals from Asia to US

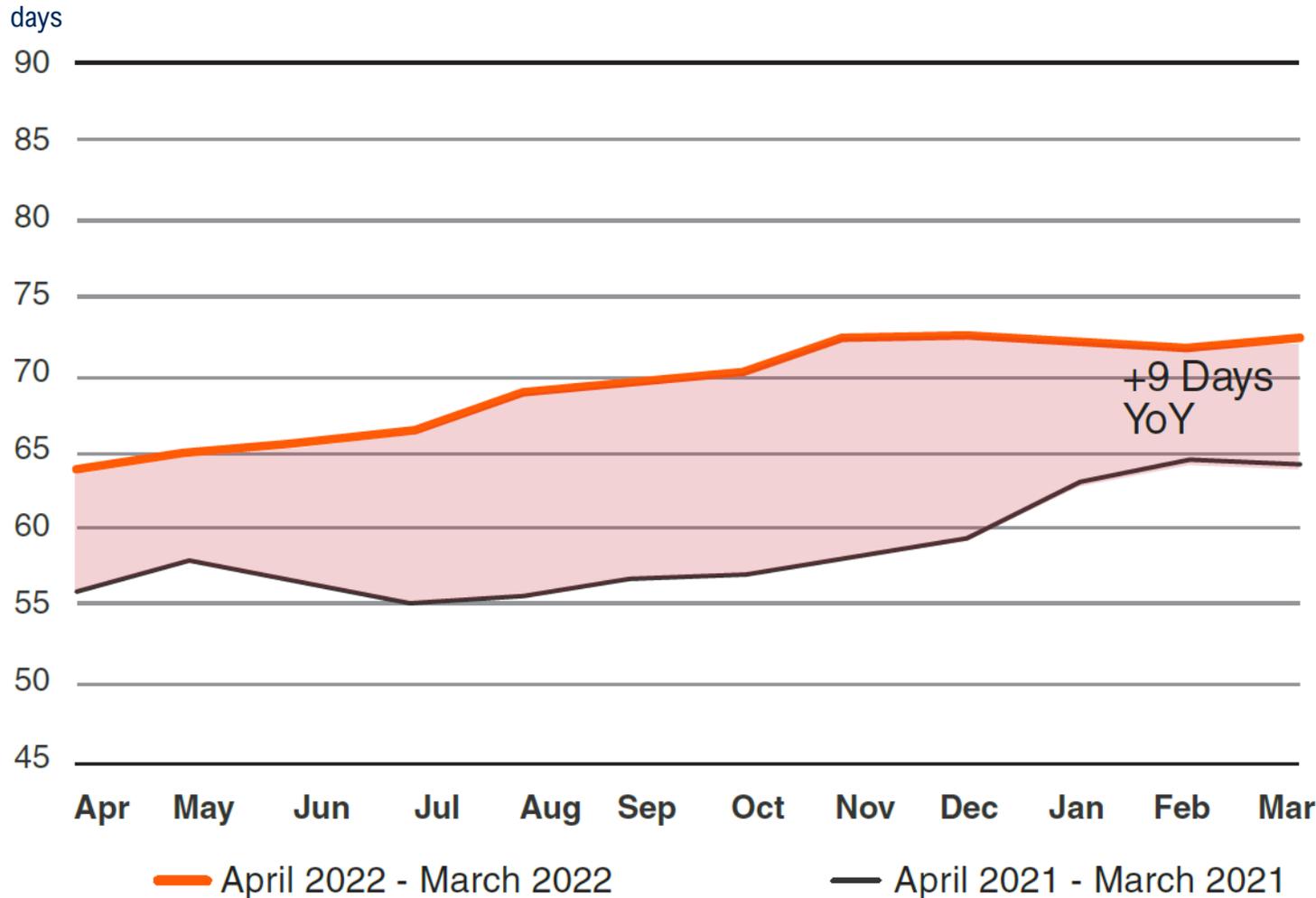


Key takeaway

- Instability of shipping operations, disruptions and shortages of assets result in a wide range of transit times to move products by sea.
- Delays in ship arrivals of 2 to 7 days are very common. About 30% of ships arrive 7 or more days after the scheduled arrival day.

Longer lead times

Average Global Maritime Lead Time (cargo booking to cargo receipt)

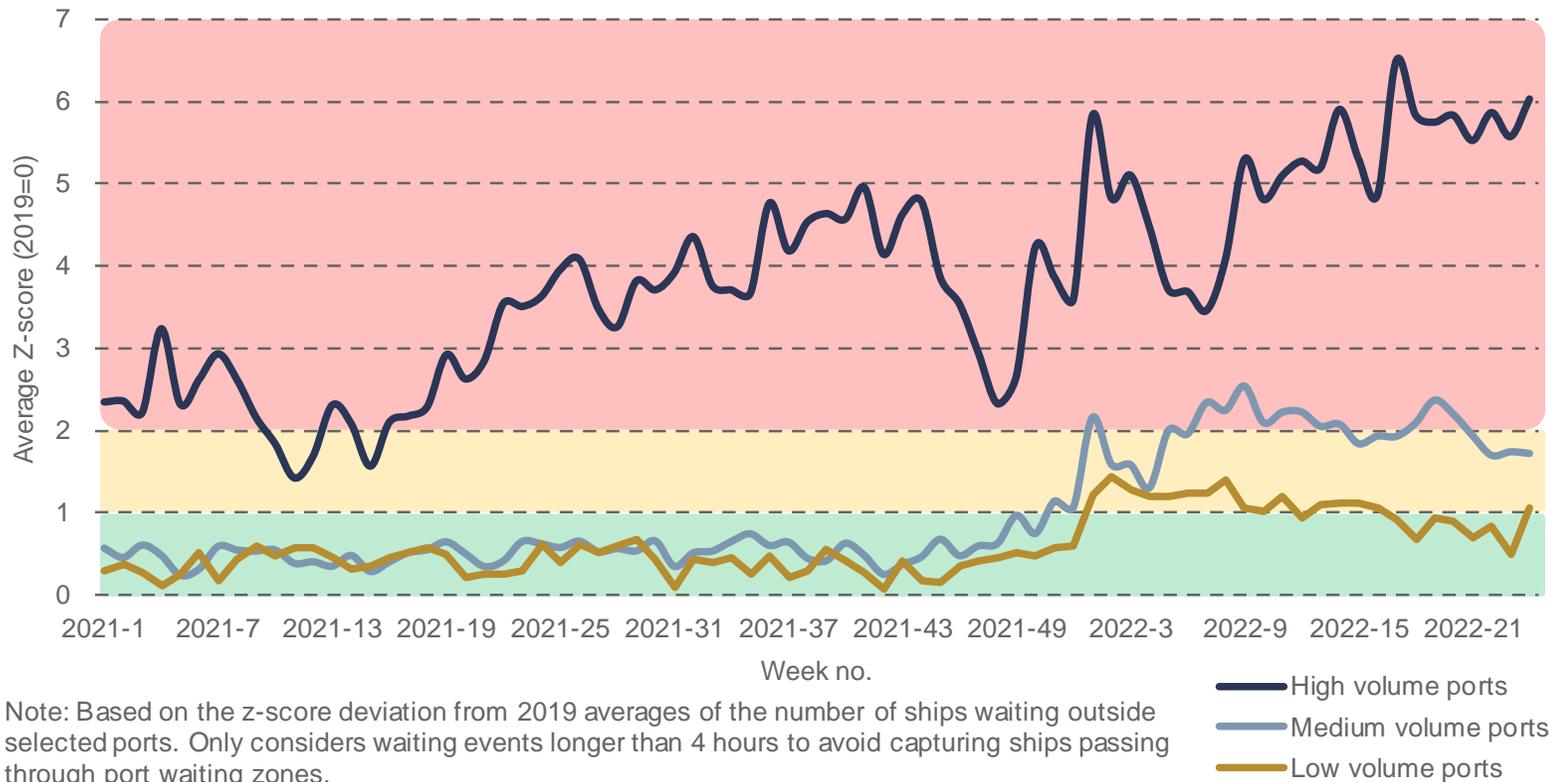


Key takeaway

- Average global maritime transport lead times (from the time of cargo booking) have increased by another 9 days between Q1 2021 (64 days) and Q1 2022 (73 days).
- Longer lead times, combined with less predictable transit times, mean more inventory-in-transit and more difficulties in responding to demand changes.

Drewry Port Congestion Z-score Indicator: Widespread port congestion

Port Congestion Z-score Weekly Indicators



Key takeaway

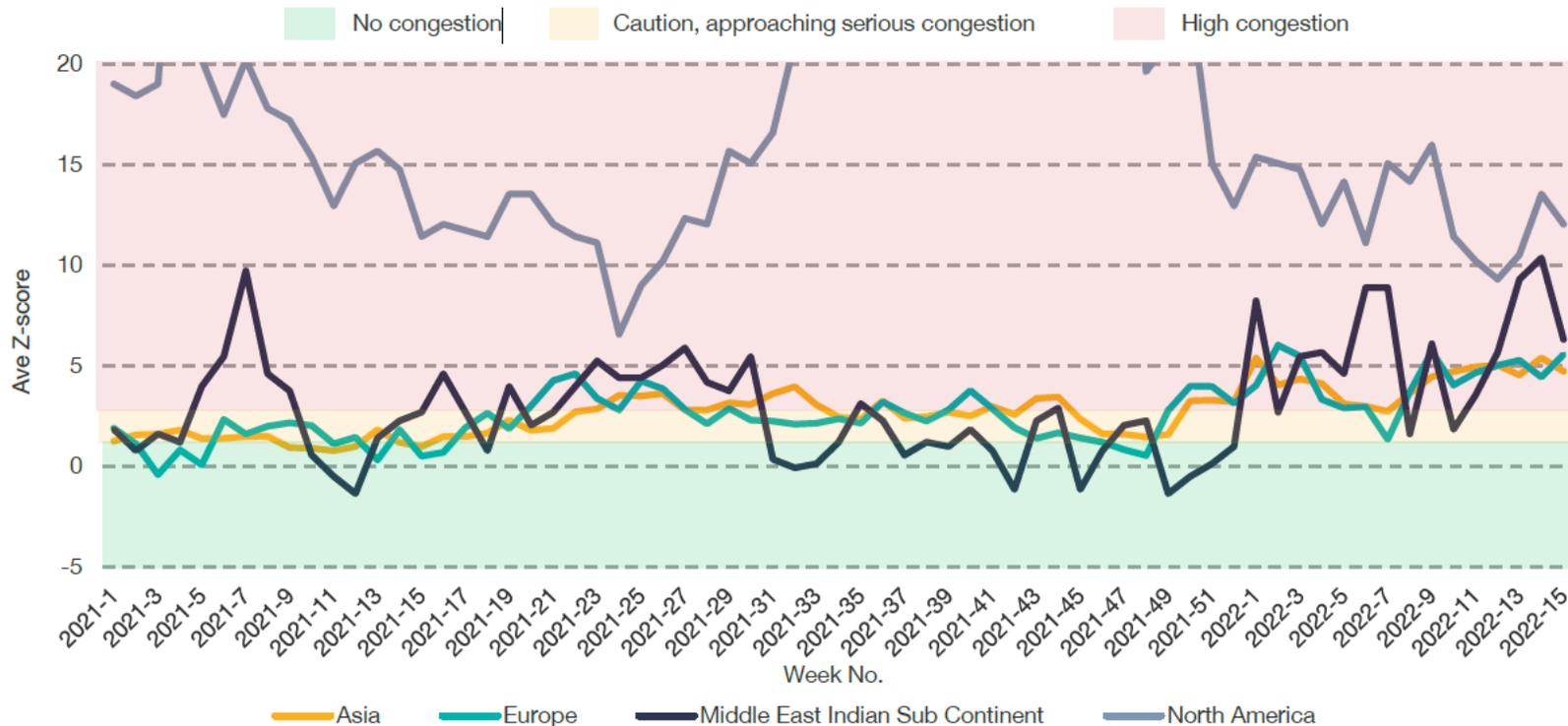
- AIS ship tracking data shows a rising number of ships waiting outside of high-volume ports.
- The problem is now spreading to medium and low volume ports too.

Red= Serious congestion / Amber= approaching serious congestion /

Green= Same congestion as in the past

Drewry Port Congestion Z-score Indicator: Widespread port congestion

Port Congestion Z-score Weekly Indicators (for high-volume ports)



Note: North America was off-scale during weeks 4-5 & 32-50
 Ships waiting less than 4 hours for a berthing window are excluded from the Z-score calculations
 Source: Drewry AIS

Red= Serious congestion / Amber= approaching serious congestion /

Green= Same congestion as in the past



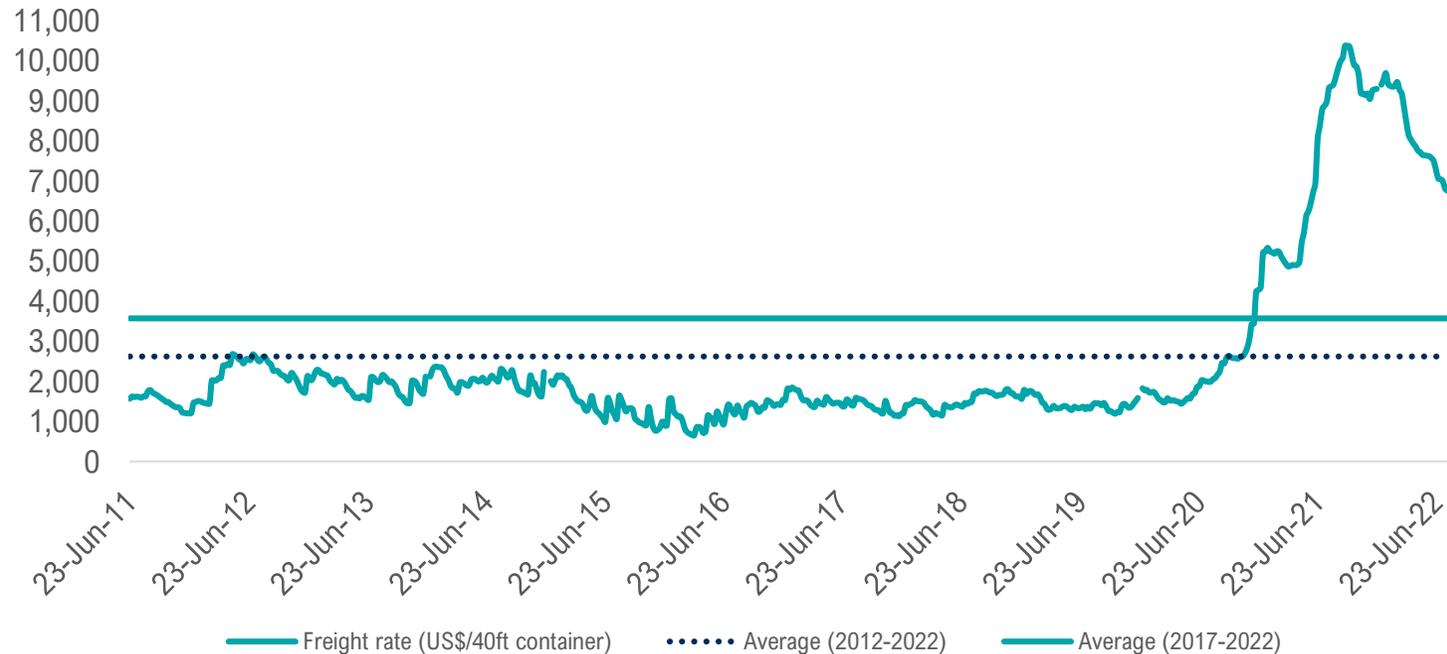
Sources: Drewry Container Capacity Insight

Key takeaway

- High-volume ports in North America, Middle East/Indian SC, Asia and Europe are seriously congested.
- There has been very little improvement in the past year.
- Drewry expects that the unwinding of the port congestion issues will take until 1H 2023, unless volumes contract.

Container freight rate index

Drewry World Container Index



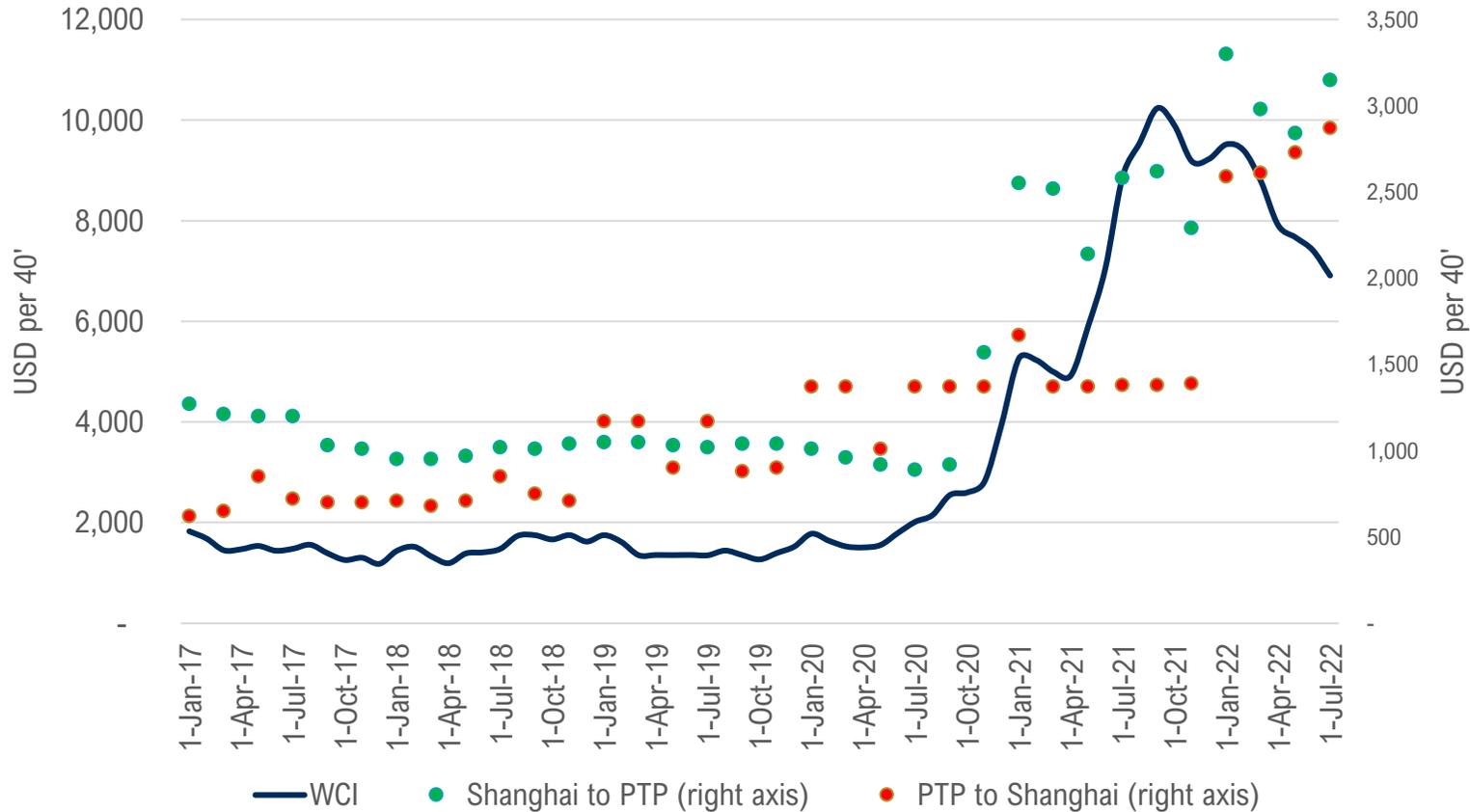
Note: World Container Index (US\$/40ft container) is composite freight rate of eight major container trade route. It is assessed by Drewry.

Source: Drewry

Key takeaway

- WCI has dropped by 28% when compared with the same week last year.
- The latest Drewry WCI composite index of \$6,762 per 40-foot container is now 35% below the peak of \$10,377 reached in September 2021, but it remains 89% higher than the 5-year average of \$3,574.
- High profits for container shipping lines achieved by current freight rates has increased scrutiny.

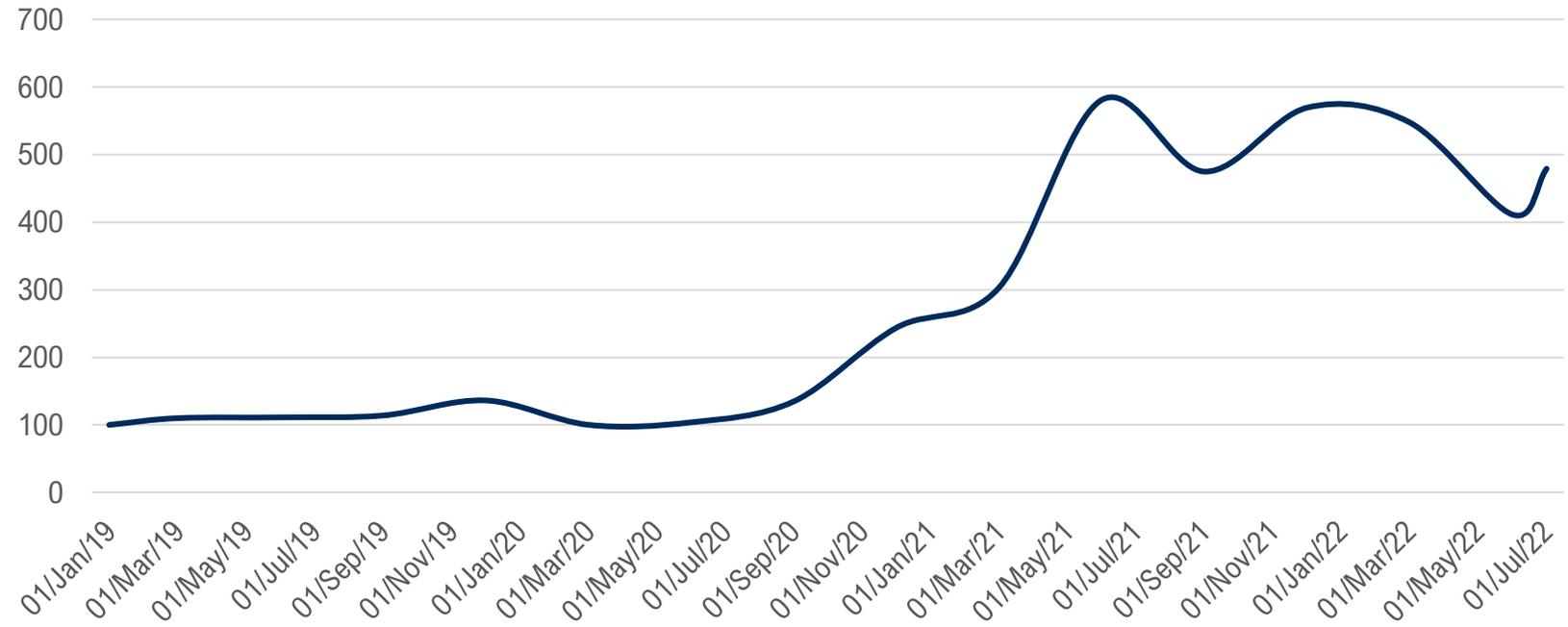
Container freight rate index: WCI vs freight rate to/from Malaysia



Key takeaway

- WCI and freight rate to Malaysia is highly correlated.
- Backhaul freight rates has lower correlation.

Drewry Container Equity Index : Beginning of the end for liner bull market



Note: Base Year : 1 Jan 2019

Based on share prices of A.P. Moller-Maersk, Hapag-Lloyd, OOIL, Evergreen Marine Corp, Wan Hai, HMM, RCL, Cosco Shipping Holdings, SITC, Matson, ZIM and Samudera.

Source: Drewry Financial Research Services



Key takeaway

- In line with falling freight rate and slowing down demand Drewry container equity index has also flattened.
- Drewry container equity index slumped 25.9%YTD2022 (as of 15July 2022), after recording a significant valuation gain of 79% and 133.7% in 2020 and 2021 respectively. Liner stocks started 2022 on a positive note but geopolitical crisis and pessimistic macro sentiments eroded the earnings.

Container shipping market scenarios

The outlook remains uncertain concerning when the ship capacity shortages, port congestion and extremely high freight rates will end.

More balanced shipping supply scenario from 2023

- slowdown in demand
- carriers deploy additional ship capacity, with some discipline
- **shipping market disruptions which commenced in 2020 finally end during 2023**
- Drewry believes this is the most likely scenario

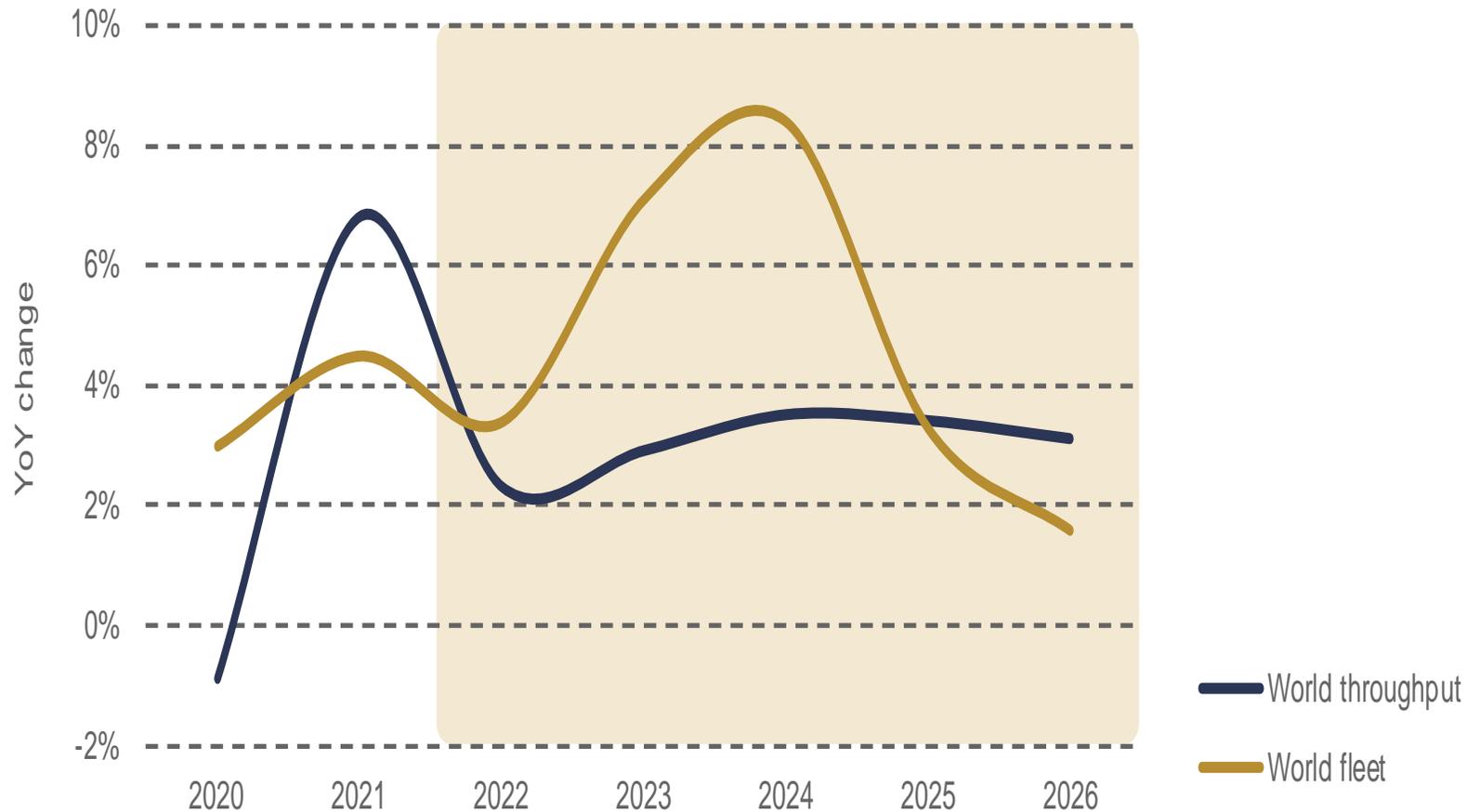
Shipping over-supply scenario

- shipping market disruptions end in late 2022 or 2023
- carriers abandon capacity discipline, leading to surplus capacity and a return of rates close to early 2021 levels
- this scenario could happen if Chinese and/or global volumes fall for an extended period of time

Continued shipping under-supply scenario

- port congestion stays or carriers ration capacity.
- Chinese volumes recover very fast; Western economies keep recent high growth of container volumes

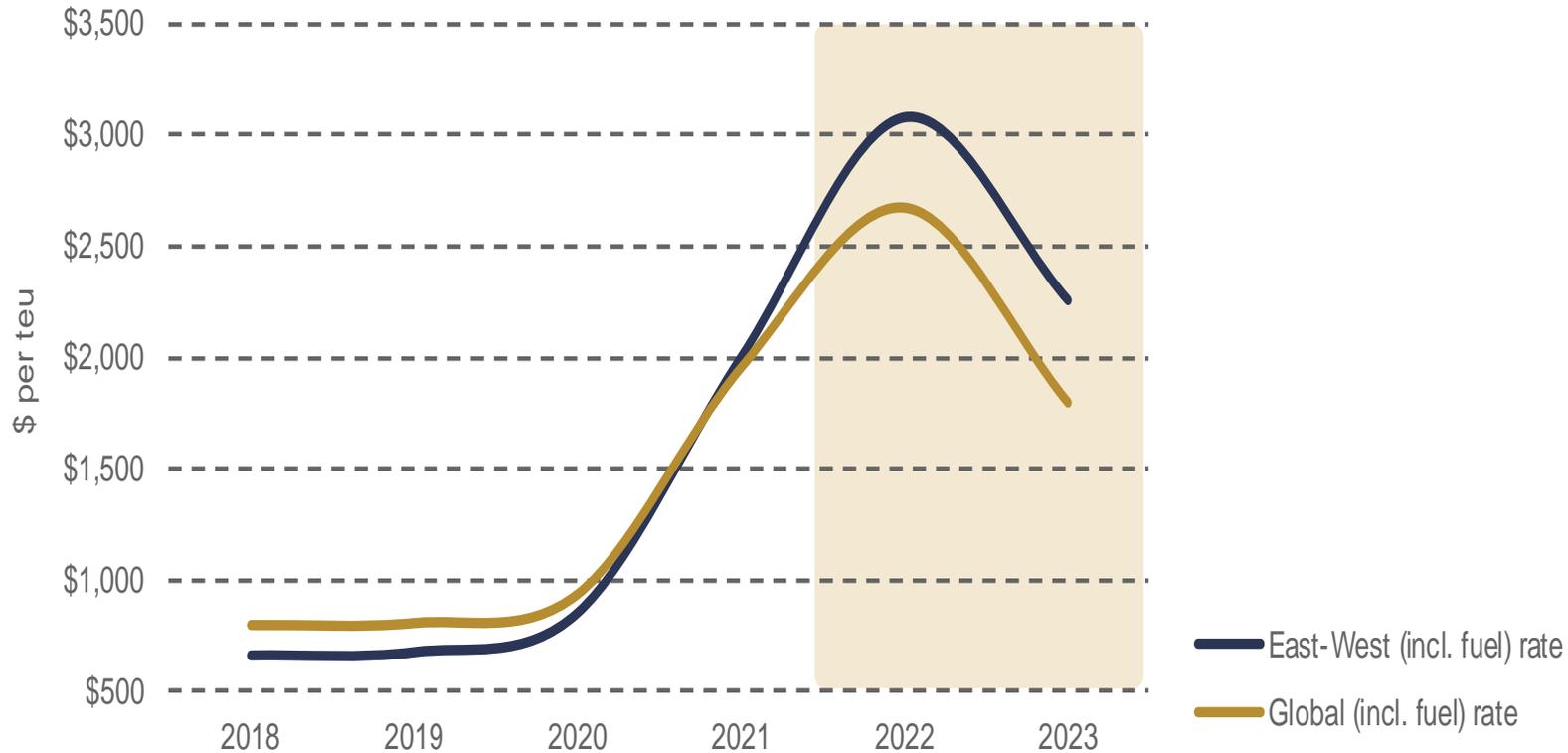
Global container demand/supply outlook



Key takeaway

- Record newbuild contracts of 4.3m teu in 2021, only slightly behind pace after 1H22 at 1.7m teu.
- The anticipated mismatch between supply and demand from 2023 presents a risk to carriers of overcapacity returning to the market.
- Dual-fuel ships now over 50% of all contracts placed YTD in 2022.

Container freight rate expectations



Key takeaway

- Average global rates (spot + contract) increased by 110% in 2021.
- For 2022, strengthening contract rates will more than compensate for a softer spot market, resulting in an expected overall increase of about 37%.
- Spot rate declines expected to be managed by carriers, providing relatively high floor for next year's contracts. Overall unit revenues expected to down by 33% in 2023.

Longer term considerations

Slower-growth, more mature, less over-supplied industry

- Whilst the size of the market will continue to grow, the growth of demand (and supply) is expected to slow down).
- Reduction in port congestion to pre-pandemic levels will effectively boost vessel capacity – downward pressure on freight rates?
- IMO energy efficiency targets will slow average speed of the non-compliant fleet, which will offset the time savings made at ports.

A more consolidated, less speculative, more profitable industry

- Liner consolidation achieved in the mid-2010s.
- Current high freight/charter rates are expected to continue to 2024; this increases barriers to entry.
- Significantly improved EBIT margins; this could encourage new market entrants.

An industry more in the public eye

- Port delays weaken global supply chains that are reliant on deep-sea trades.
- High freight rates and poor service levels opens industry up to regulatory risk.
- CO2 emissions are declining but there is pressure for the industry to do more.

Key takeaway

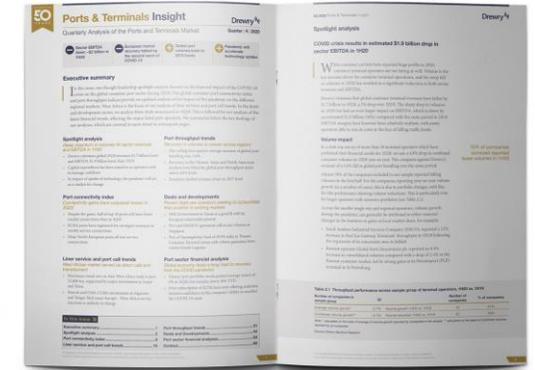
- Container shipping finds itself in a much financially healthier situation after years where lines struggled to maintain profitability.
- It help sail the energy transition.
- Whilst freight rates and charter rates are expected to normalise by 2024, there is scope for more stability for shipping lines in future.

Q&A welcome

Principal source of material used for the presentation

- **Drewry Ports and Terminals Insight**

- Quarterly report offering:
 - Spotlight analysis: thought leadership
 - Port connectivity index
 - Global Ports Monitor
 - Regional Ports Monitor
 - Deals and developments
 - Port sector financial analysis



Combined package available on annual subscription terms

- **NEW** Monthly supplement providing enhanced global regional data

- Port Throughput Indices, Port Call Indices
- Port Performance Indices, Port Congestion Trackers

- **Global Container Terminal Operators Annual report**

- Terminal industry structure and performance
- League tables and performance of terminal operators
- Operator strategies, portfolios and risk profiles
- Forecast capacity by terminal operator & region to 2026
- Individual analysis of 30 terminal operators and investors



- **Container Forecaster Monthly report**

- **Drewry Maritime Financial Insight**





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