



# Brave new world? The next 25 years of container transport

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CLECAT FREIGHT FORWARDERS FORUM 2021  
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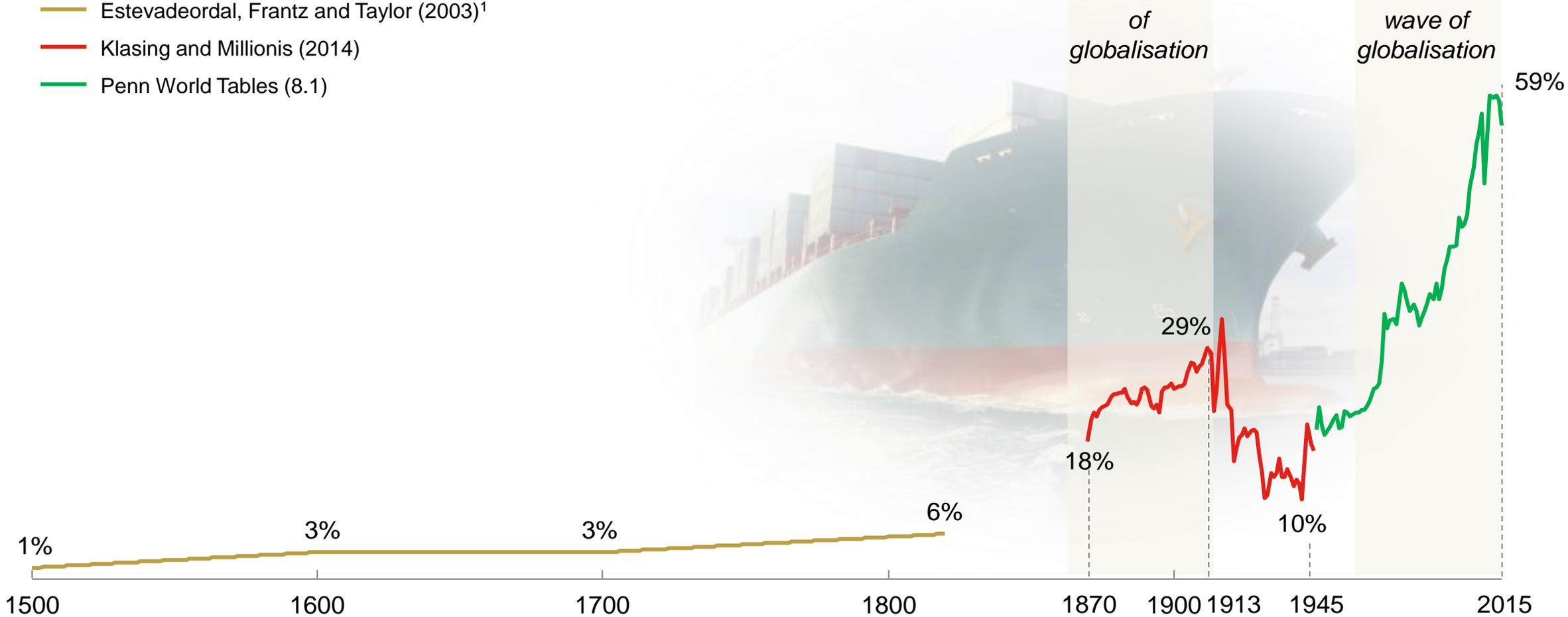
McKinsey  
& Company



# We've been living in an unprecedented era of trade growth

## World exports and imports of goods and services

Share of world GDP, %



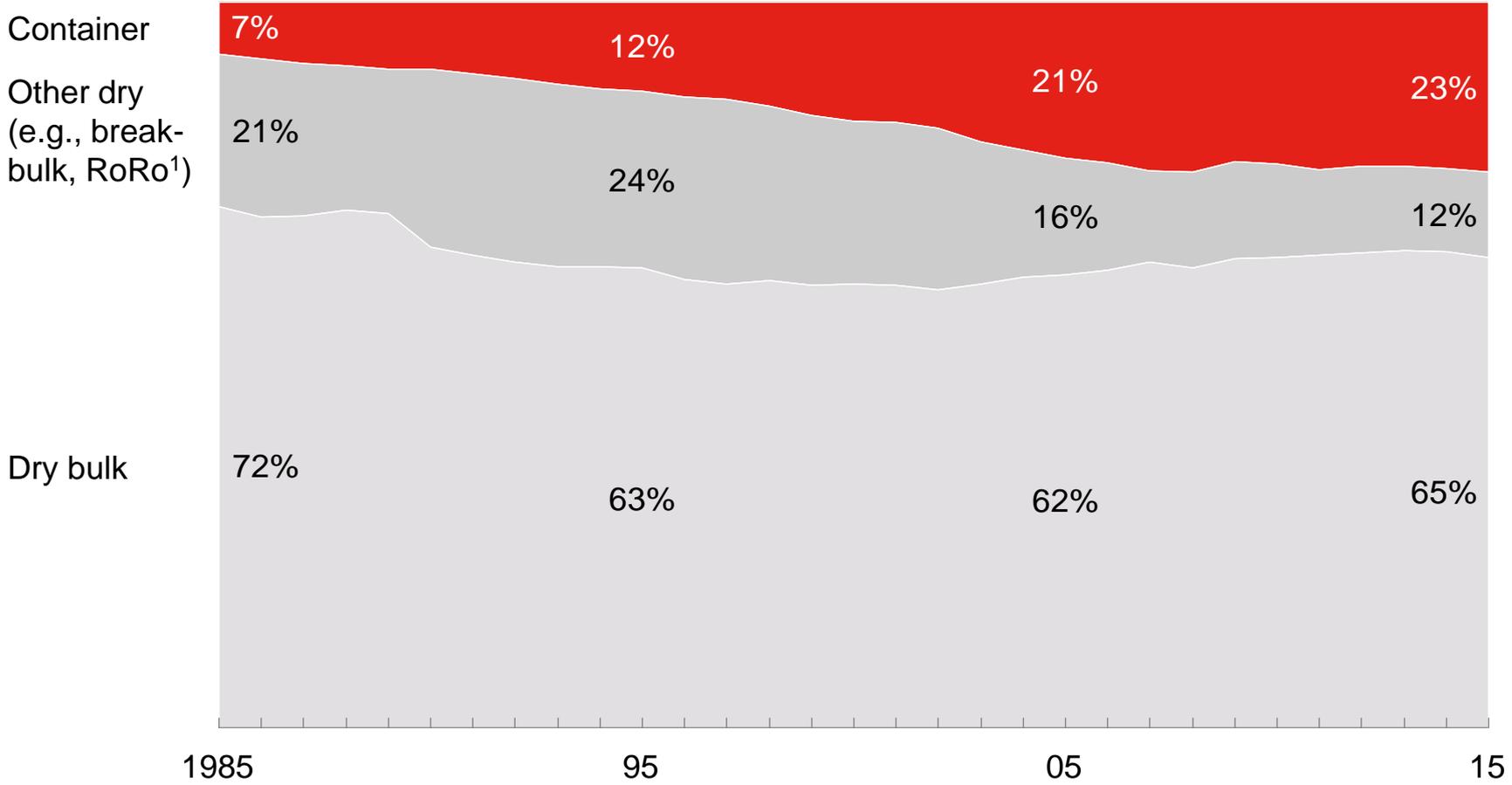
<sup>1</sup> Simple average of lower- and upper-bound estimates.

SOURCE: Esteban Ortiz-Ospina and Max Roser, "International trade," OurWorldInData.org; Mariko Klasing and Petros Milionis, "Quantifying the evolution of world trade, 1870–1949," *Journal of International Economics*, January 2014; Antoni Estevadeordal, Brian Frantz, and Alan Taylor, "The rise and fall of world trade, 1870–1939," *The Quarterly Journal of Economics*, May 2003; Penn World Tables Version 8.1; McKinsey analysis

# Containerisation has slowed considerably since the early 2000s – but is unlikely to reverse

## Container share of dry seaborne trade

% of total dry seaborne trade tons



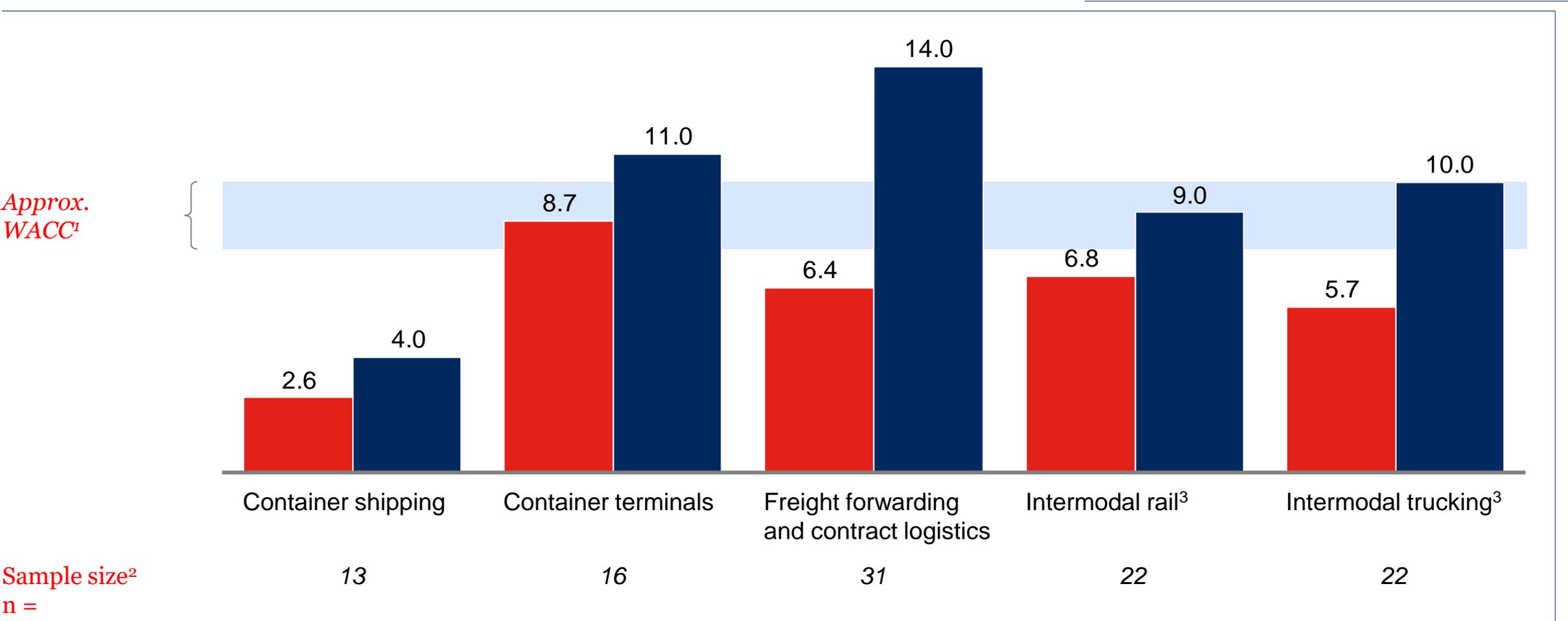
1 Roll-on, roll-off

SOURCE: IHS, McKinsey analysis

# The container transport industry has struggled to return its cost of capital in the two decades to 2016

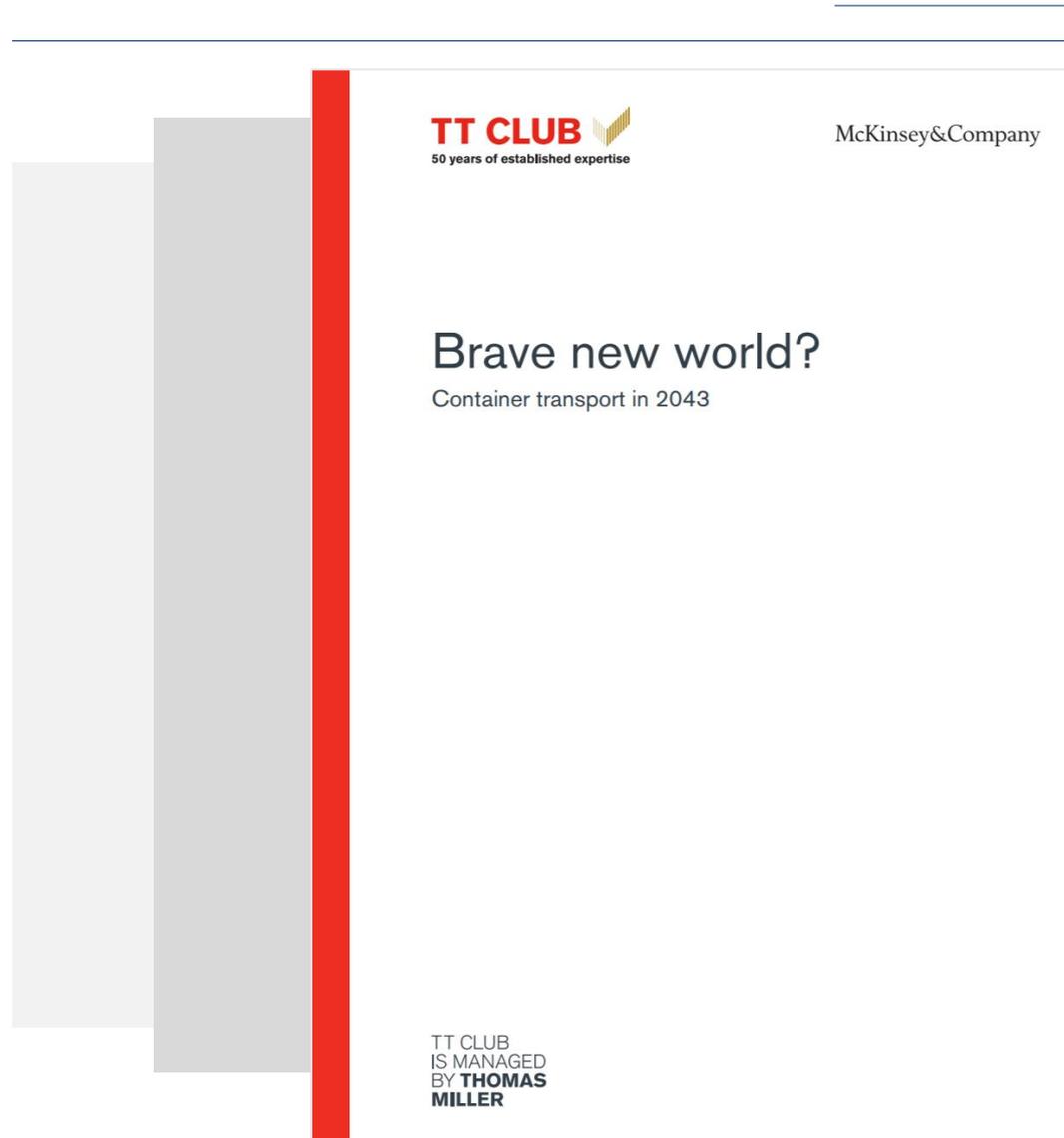
■ Average ROIC  
■ Top-quartile ROIC

Average return on invested capital (ROIC), %, 1995-2016



1 Weighted average cost of capital; estimated at 8-10%  
 2 Sample size varies across years due to data unavailability  
 3 Includes non-containerised transport

Looking forward (in 2018)...



**What fundamentally drives industry value-creation over the next 25 years?**

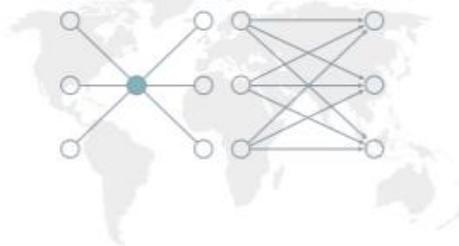
- **Trade growth?**
- **Digital, data, analytics?**
- **Something else?**

# Six (potential) sources of value creation going forward

## 1 GREATER ECONOMIES OF SCALE



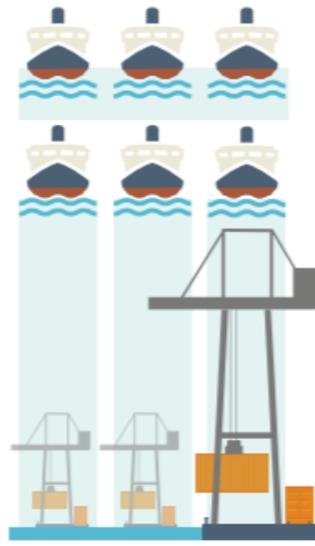
## 2 FLEXIBILITY



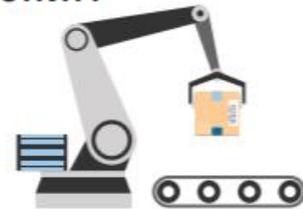
## 3 SUPPLY CHAIN RELIABILITY AND PREDICTABILITY



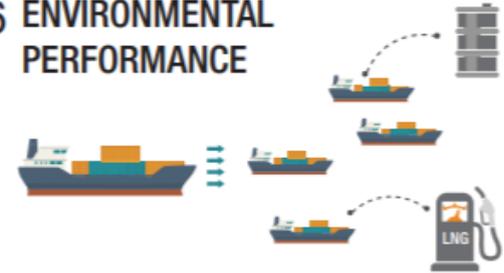
## 4 CONSOLIDATION AND INTEGRATION



## 5 AUTOMATION AND PRODUCTIVITY

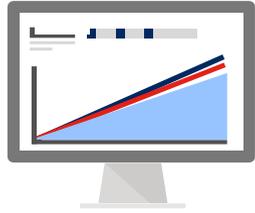


## 6 ENVIRONMENTAL PERFORMANCE



# Future #1: Third wave of globalisation

## Trade demand



**>2x**  
**MULTIPLIER**

Re-acceleration of trade growth

 **~35%** Container captures significant share from bulk

Specialisation results in significant supply chain fragmentation



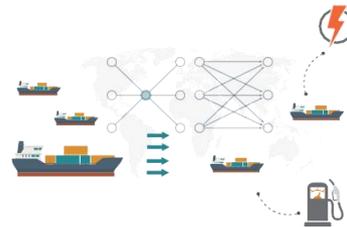
China manages slowdown while India grows >10% p.a.



## Sector economics



Scale economies become important again faster than expected: ~30k TEU ships within 10 years



Continued prominence of hub-and-spoke networks

Digital, data, and analytics a fundamental driver of value



Considerable automation across value chain (ships, ports, rail, trucks)



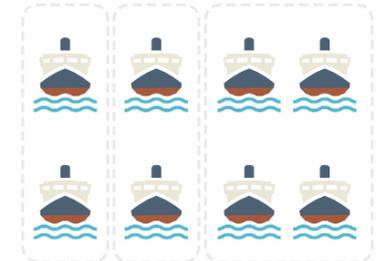
## Industry structure



Room for both “digital natives” and incumbents

Freight forwarders digitise and are key nodes in ecosystem

7+ incumbents and “long tail” of point-to-point players



Alliances remain important and expand scope



Vertical integration proves to be of limited value

# Future #2: "Peak container" & consolidation

## Trade demand

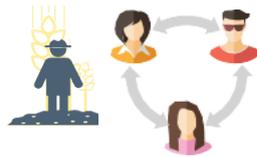


**<1X  
MULTIPLIER**

Further slowdown of trade growth

 No more containerisation  
Market stays flat at **23%**

Increasing share of "local for local" supply chains



China's export engine sputters and India does not achieve "breakout" growth



## Sector economics



Scale economies lose salience because insufficient demand to fill ships



Hub-and-spoke networks;  
more trans-shipment



Digital, data, and analytics  
only an "overlay"

Gradual automation, especially  
landside (ports, rail, trucks)



## Industry structure



Freight forwarders  
digitise faster than  
asset owners and  
avoid disruption

Accelerated  
consolidation  
resulting in 3-4  
leading liners



Vertical  
integration  
proves to be of  
limited value



Alliances less  
valuable

"Digital natives"  
play in the  
margins; no entry  
by "digital giants"

# Future #3: Digital reinvention

## Trade demand



**1-1.5x**  
MULTIPLIER

“Slow and steady” trade growth



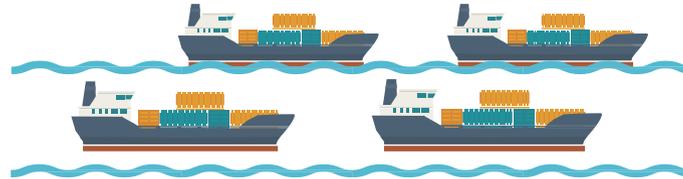
Modest additional containerisation

Shorter, more diverse supply chains (e.g., India to China, Africa to Europe)



China manages slowdown, India does not achieve “breakout” growth

## Sector economics



Scale economies lose salience; flexibility is valued



Smaller ships, more point-to-point, less trans-shipment



Digital, data, and analytics a fundamental driver of value



Considerable automation across value chain (ships, ports, rail, trucks)

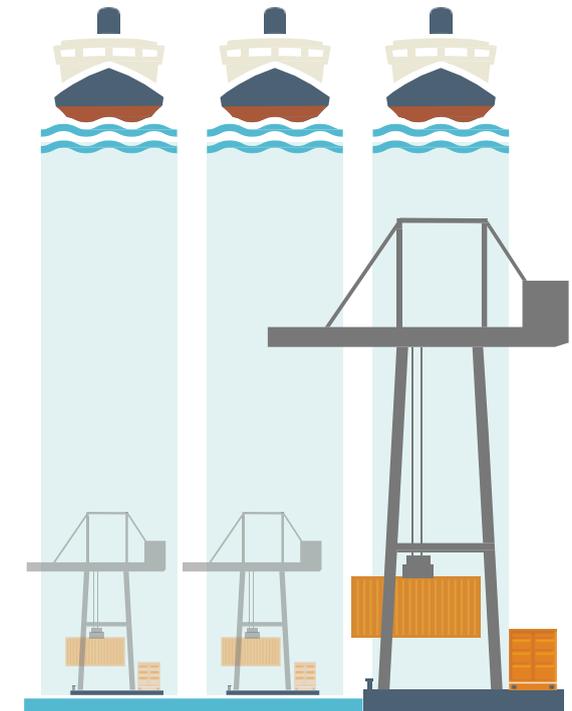


## Industry structure

4-5 major incumbents and “long tail” of point-to-point players

Vertical integration enables digitisation and provision of E2E supply chain services

Freight forwarding radically shifted to a digital model



# Future #4: Digital disruption

## Trade demand



**1.5-2x**  
MULTIPLIER

Reduced friction via digital unlocks new exporters/importers



Modest additional containerisation

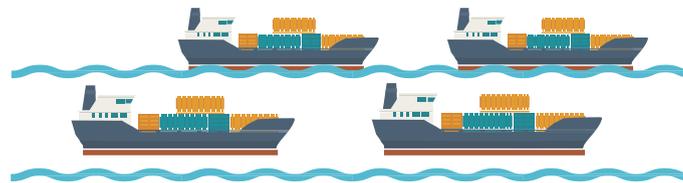
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China manages slowdown, India does not achieve “breakout” growth



## Sector economics



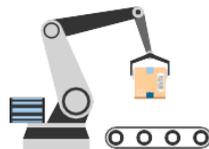
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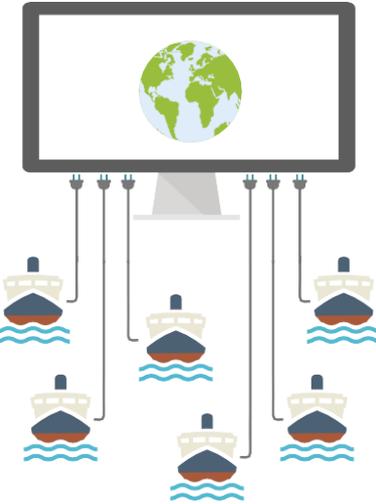


Considerable automation across value chain (ships, ports, rail, trucks)



## Industry structure

Digital giants provide the platform / selectively own physical assets to optimise chains



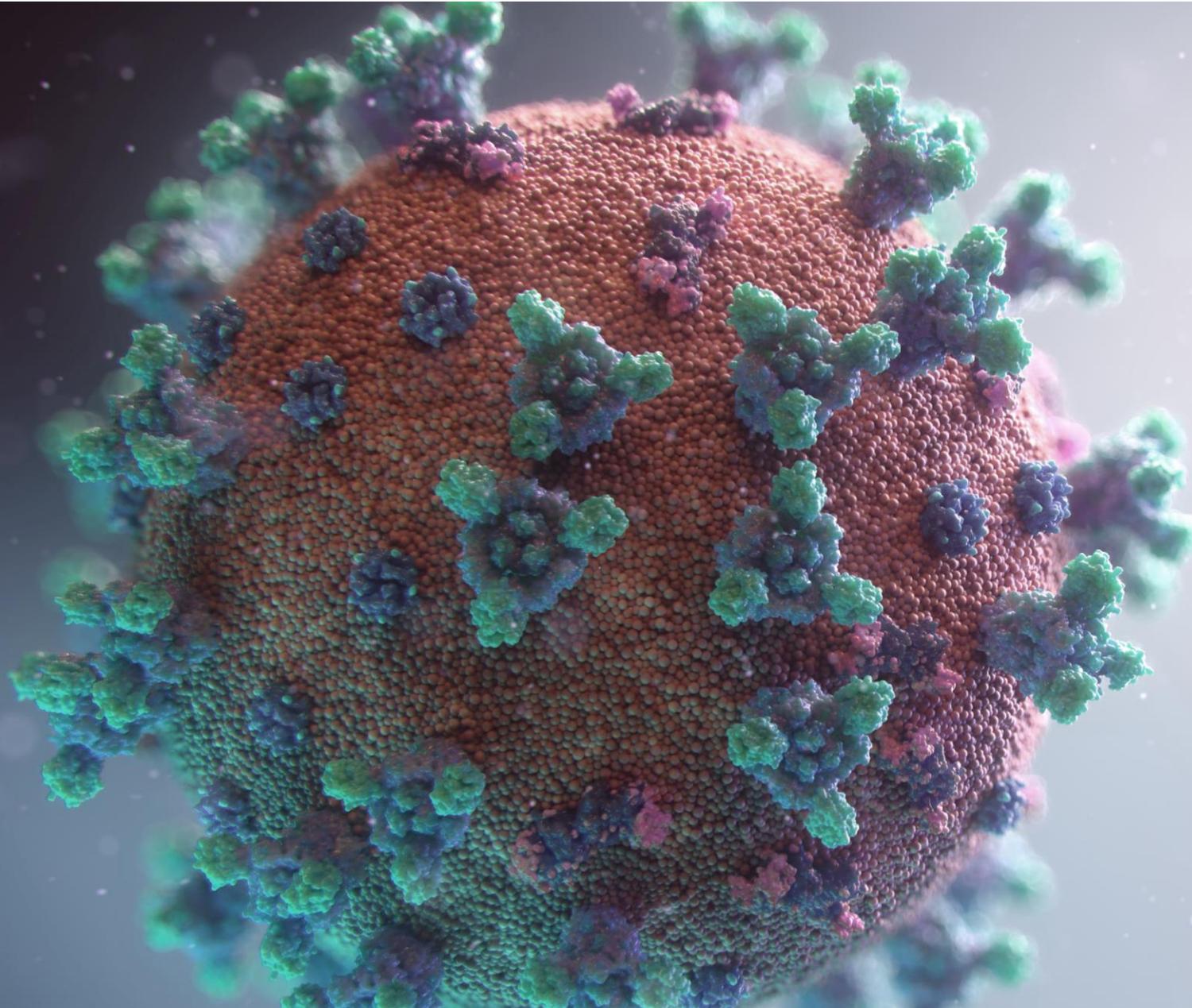
“Uber-isation” of container transport: proliferation of carriers acting as “dumb pipes”



Vertical integration led by “digital giants” – enables digitisation and provision of E2E supply chain services

Freight forwarding becomes totally digital

## Reprise – three years on: what track to 2043?



### **'Black Swan' events**

- Pandemic 'boxing'
  - Consumption
  - Capacity
  - Congestion

### **'Grey Swan' events**

- Digitisation drive
- 'Ever Given'
- Divergent COVID policies
- Decarbonisation
- Geo-politics
- ESG



**See the report:**  
[ttclub.com/tomorrow](http://ttclub.com/tomorrow)

Thank you!

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