



IHS Markit™

# Maritime Economic Outlook & Port Productivity

Maritime & Trade

Oct 2017

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**Solutions Consultant**

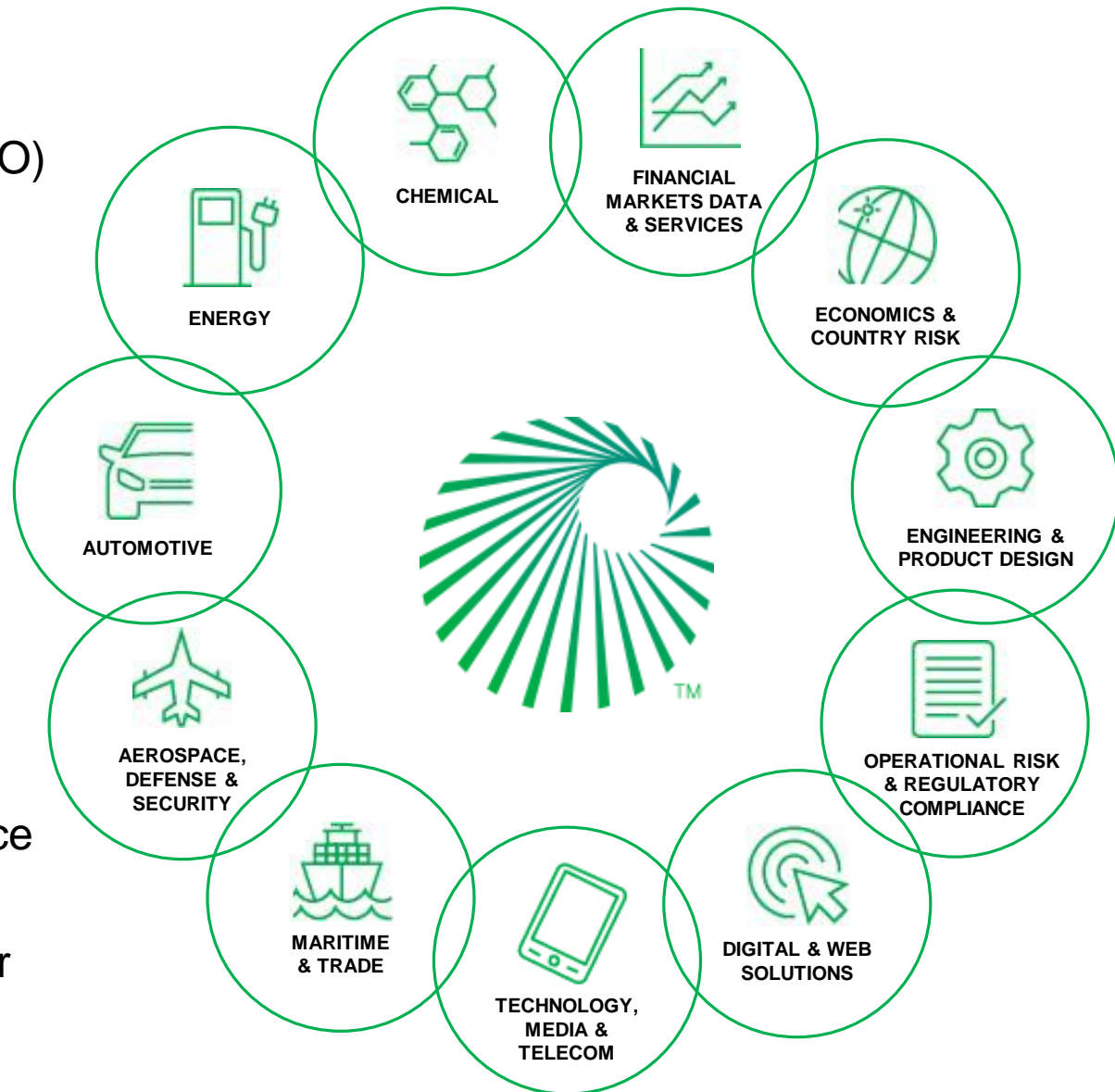
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## Who are we?

IHS Markit - NASDAQ: (INFO)  
+\$17bn Market Cap  
+13,000 employees  
+30 global offices  
+ An unmatched portfolio of information, analytics and expertise on these sectors

## What do we do?

We deliver critical intelligence by addressing client's strategic challenges with our interconnected capabilities



## Who We Serve

All

global investment  
banks

35 of 50

largest U.S. banks

All

largest hedge funds

46 of 50

largest global asset  
managers

24 of 25

largest global oil  
companies

10

largest automobile  
companies  
in the world

47 of 50

largest global  
corporate  
enterprises

94 of 100

largest U.S.  
corporates

>80%

of the Fortune  
Global 500

>75%

of the Fortune  
US 1000

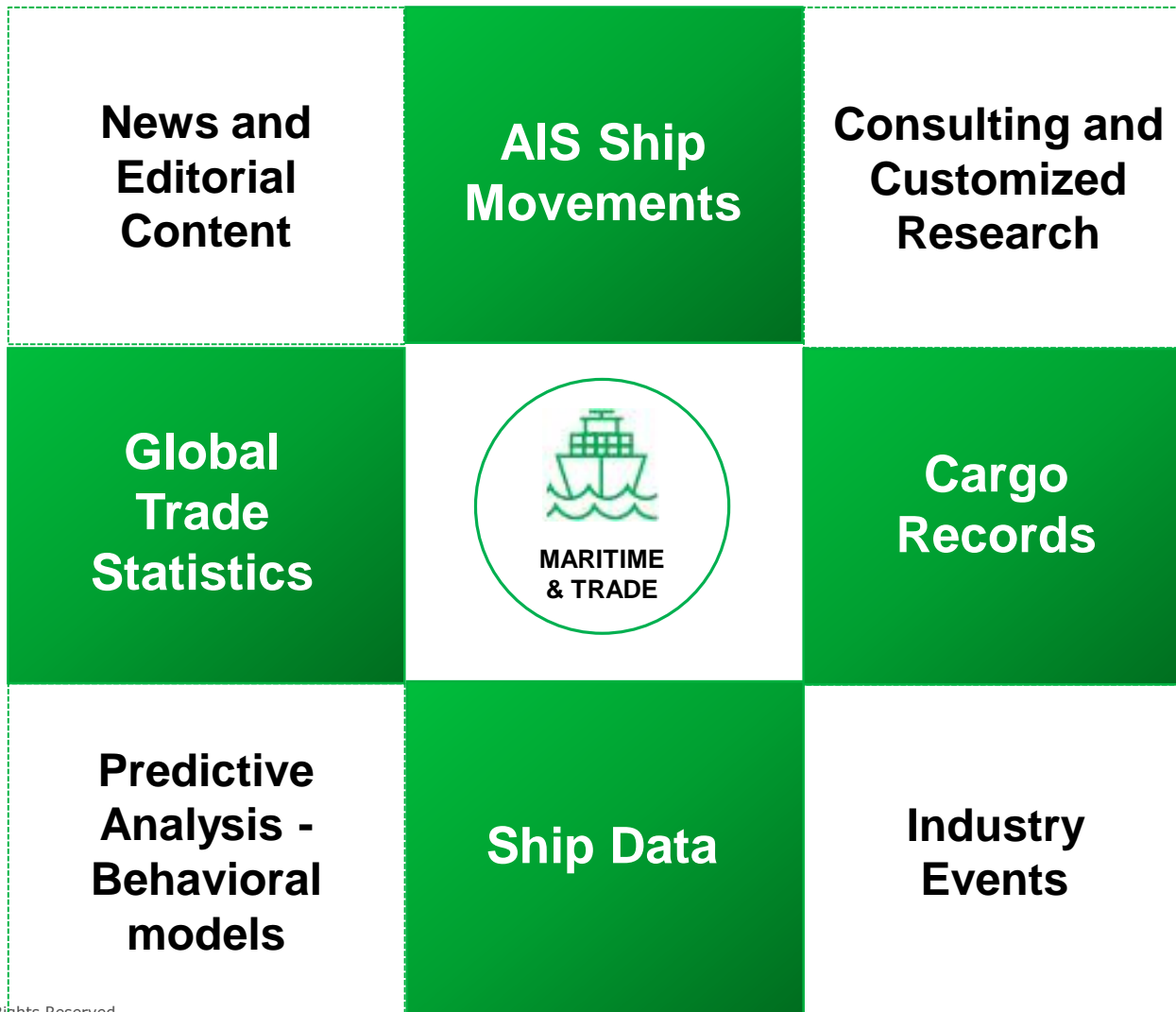
All

largest global  
custodians

All

G20 governments

Our unique data assets provide governments and commercial customers with access to the most comprehensive insights



# JOC Events – leading industry conferences worldwide

**17<sup>TH</sup> TPM**  
ANNUAL CONFERENCE

**TPM ASIA CONFERENCE**  
泛太平洋海运亚洲大会

**JOC**  
EVENTS

**PORT PERFORMANCE**  
NORTH AMERICA  
CONFERENCE

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EVENTS

**GULF SHIPPING**  
CONFERENCE

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EVENTS

**CONTAINER TRADE**  
EUROPE  
CONFERENCE

**JOC**  
EVENTS

**SHIPPER**  
ROUNDTABLES

**JOC**  
EVENTS

**CANADA**  
TRADE FORUM

**JOC**  
EVENTS

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DISTRIBUTION  
CONFERENCE



# Fixed investment leads the 2017–18 acceleration in the global economy

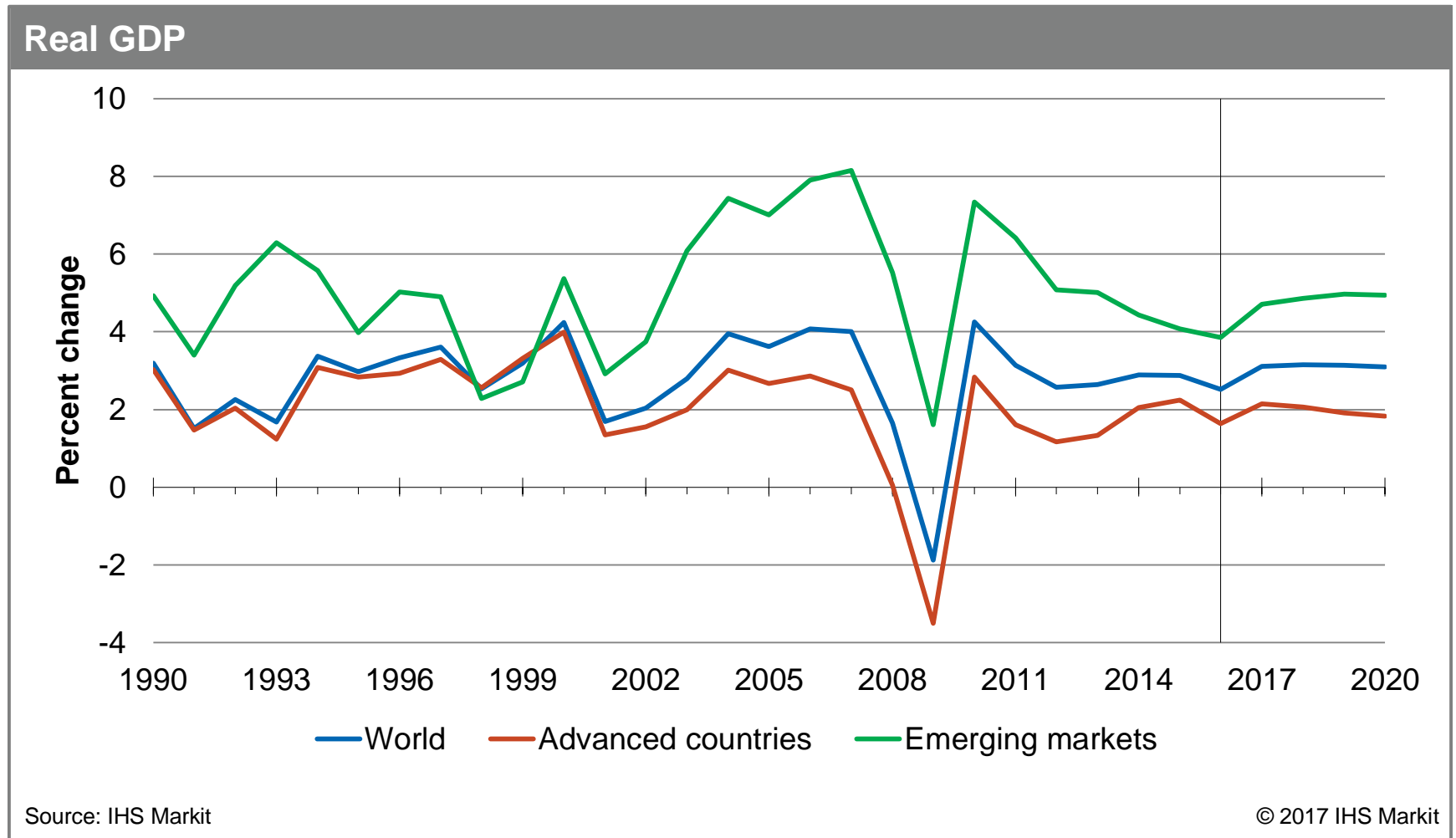
Real GDP Growth Rate and its components				
Percent change	2016	2017	2018	2019
Real GDP	2.5	3.1	3.2	3.1
Private consumption	2.6	2.9	2.9	3.0
Fixed investment	1.7	3.3	3.6	4.2
Government consumption	2.0	1.3	2.0	2.2
World trade (exports)	2.6	4.4	4.0	4.0
Industrial production	1.3	3.1	3.1	3.1

Source: IHS Markit

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# Emerging markets lead global real GDP growth






































## Major Trends Affecting Global Logistics

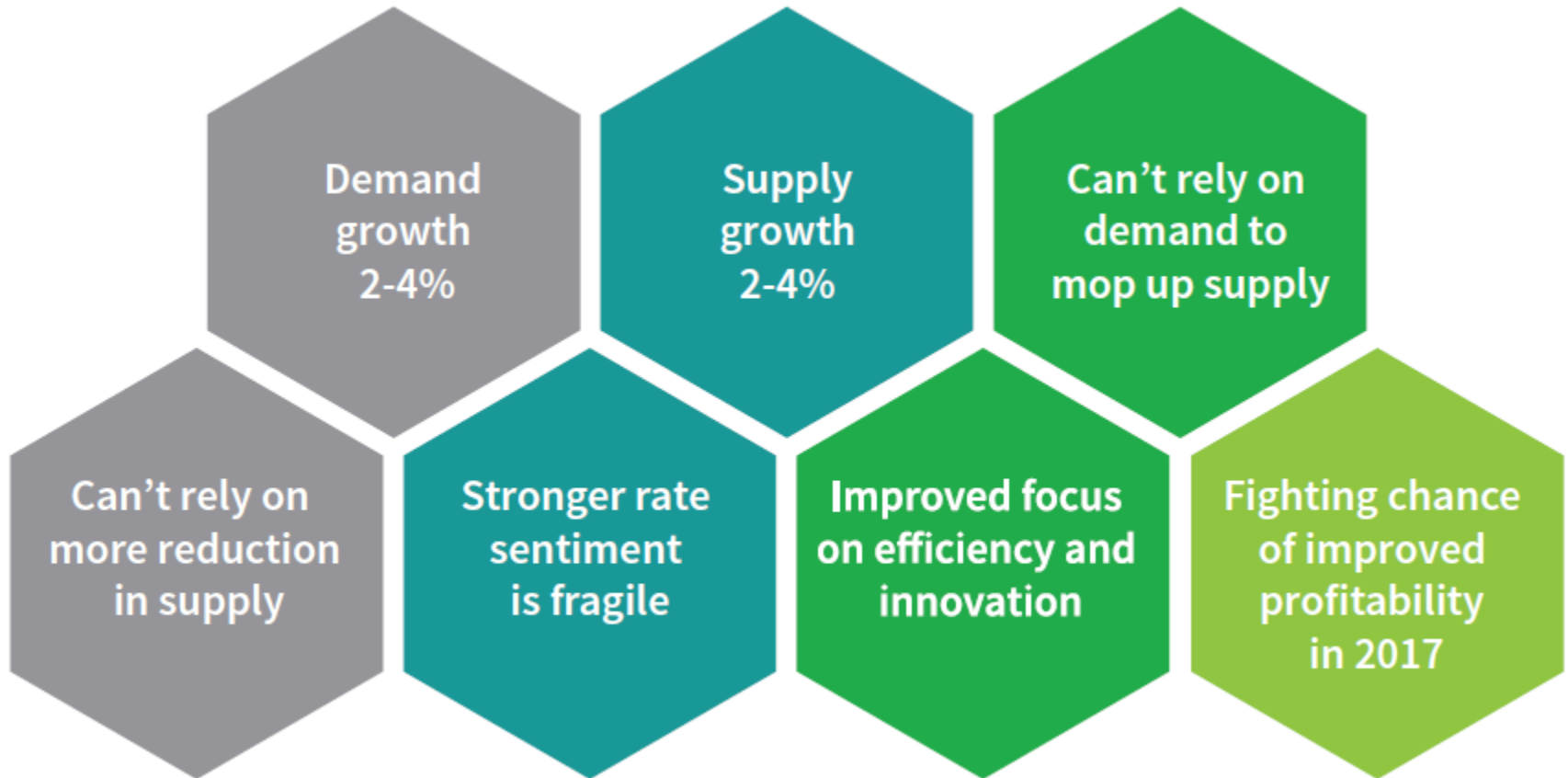
- Rising Global Population and Incomes in the Developing World
- The Uncertainty of Trade Agreements and International Alliances
- Fewer Growth Opportunities from Outsourcing/Containerization
- Carrier Consolidation and Larger Vessels in Container Markets
- Renewed Focus on Infrastructure & Hinterland Logistics
- 4<sup>th</sup> Industrial Revolution – Automation & Electrification, 3D Printing, Supply Chain Transparency, Digital Platforms, E-Commerce Omni-channels and New Transportation Mode-based Systems



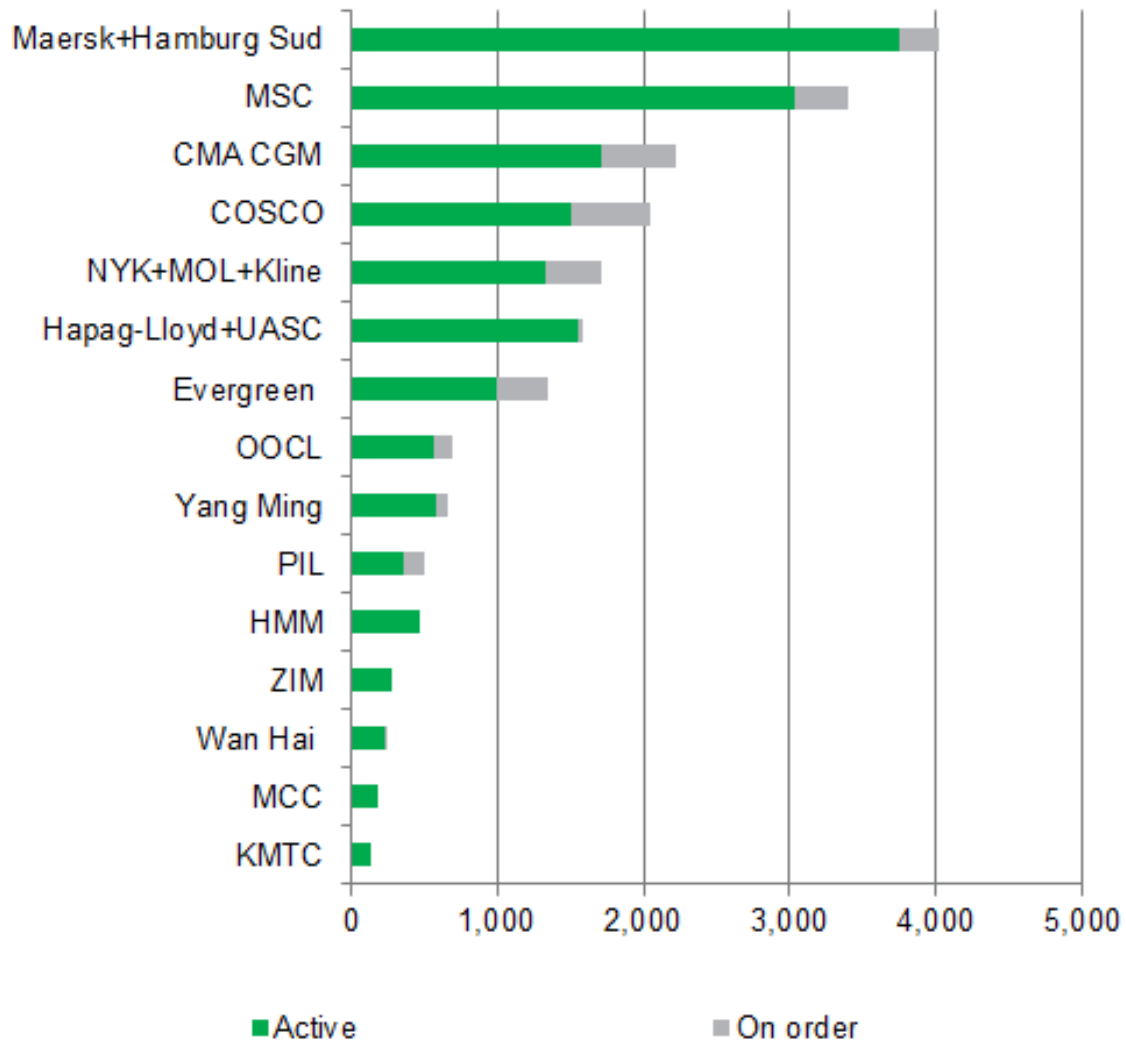
# Shipping

Sector	Now?	Outlook	Fleet Size	Ship Size	Traffic
Cruise					
Dry Bulk					
General/Project Cargo					
Tankers Chemicals					
Tankers Crude					
Tankers Gas					
Vehicle/Roro Carriers					

# Container Shipping Market



### TOP 15 operators - thousands TEUs



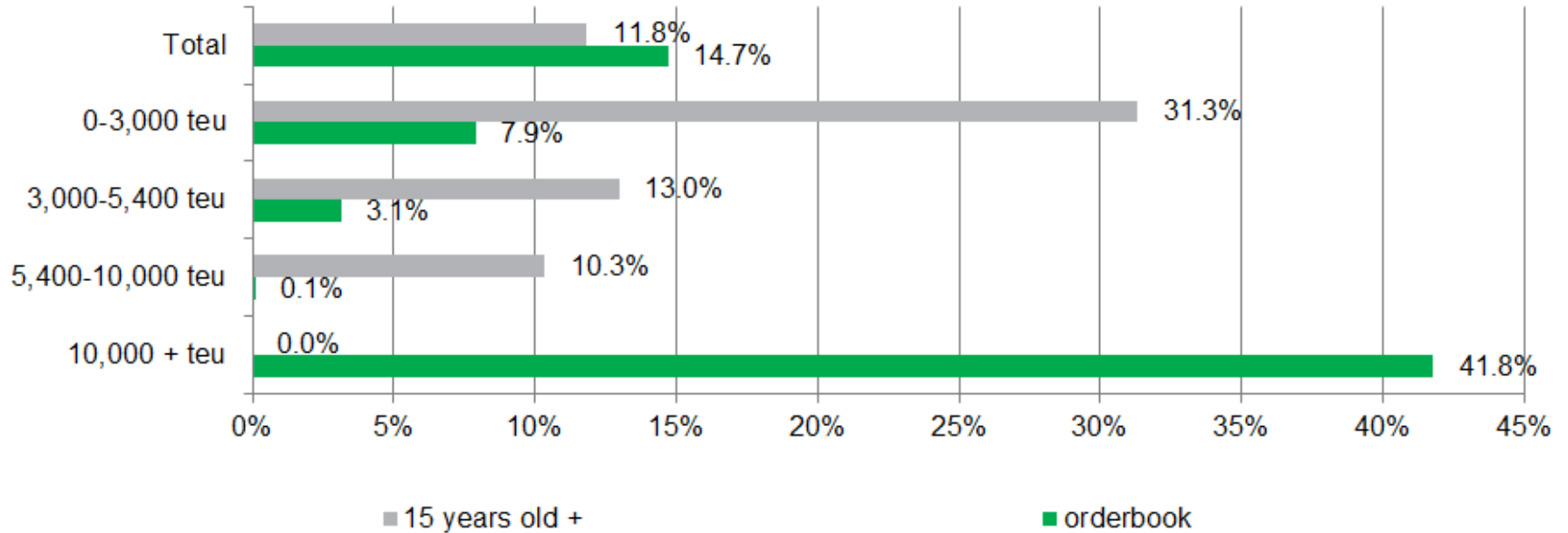
Notes: Fleet as of October 2017; Includes proposed and approved mergers  
 Source: IHS Markit

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Group	Members	Active (TEUs)	Active (Ship #)	Order (TEUs)	Order (Ship #)
2M	Maersk (Hamburg Sud), MSC, HMM	37%	36%	30%	26%
Ocean Alliance	CMA CGM, COSCO, OOCL, APL, Evergreen	34%	36%	60%	66%
The Alliance	Hapag Lloyd (UASC), Yang Ming and ONE (NYK, K Line, MOL)	29%	28%	10%	9%

% = % of global fleet in terms of either TEU capacity or Vessel Count

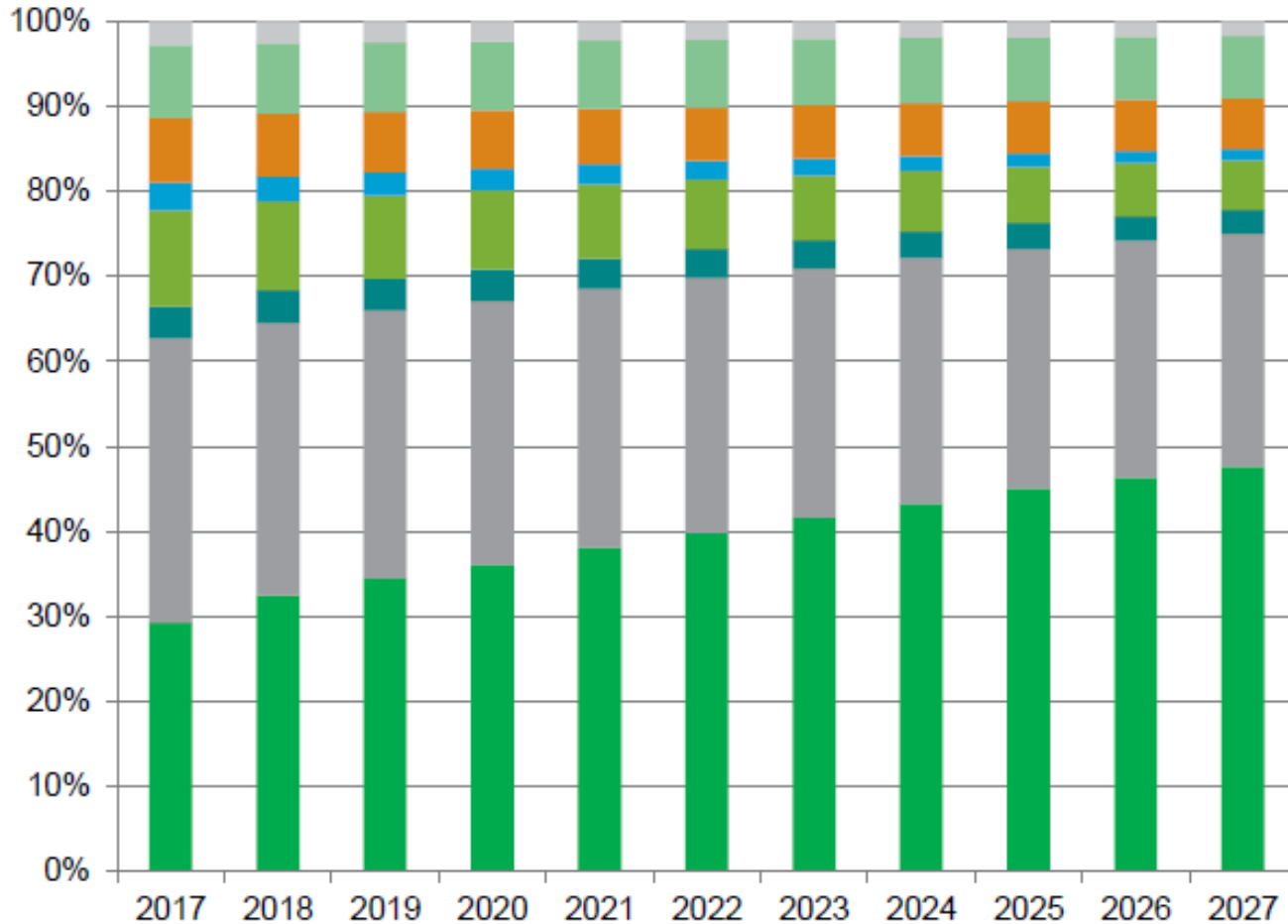
## Container fleet - % of active fleet



Notes: As of 1st of October 2017  
 Source: IHS Markit

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## Fleet structure – Active fleet



■ ULCS  
■ Sub-Panamax

■ Post-Panamax  
■ Feedermax

■ Baby post-Panamax  
■ Regional feeder

■ Small feeder  
■ Panamax

Source: IHS Markit

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## Terminal & Ports Trends

- Bigger Container Ships, Fewer Calls, More Challenging Operations
- More Capital Required (Cranes, Automation Tech, Dredging, Inland Terminals, New Potential Land-Use Needs)
- Negotiating Power of Container Carriers is Up, Terminals Down
- Bilateral Engagement Among Stakeholders Harder due to Alliances
- New Ownership Structures (Terminal Consolidation into Larger, Professional Firms or Integration with/Acquisition by Carriers)



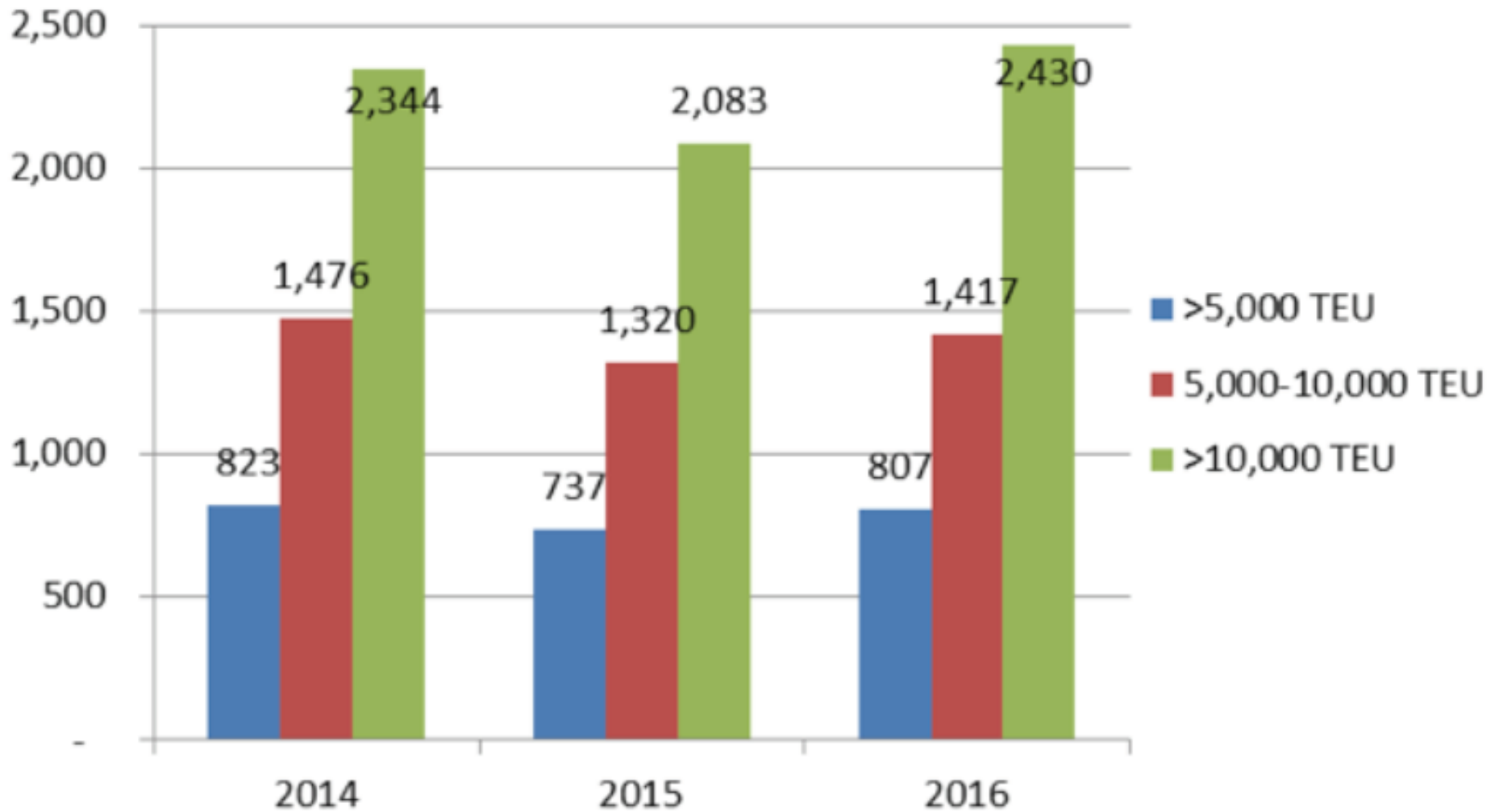
# IHS Markit Port Productivity Research

- Launched in 2009 by *The Journal of Commerce* (now part of IHS Markit) through urging of carriers
- Benchmarking system based on data provided by participating carriers, which represents about 75% of total global container capacity
- Program includes roundtables in Hamburg and New Jersey (again soon – in Dec 2017!)
- Outputs include data files, dashboards and white papers

## Metrics

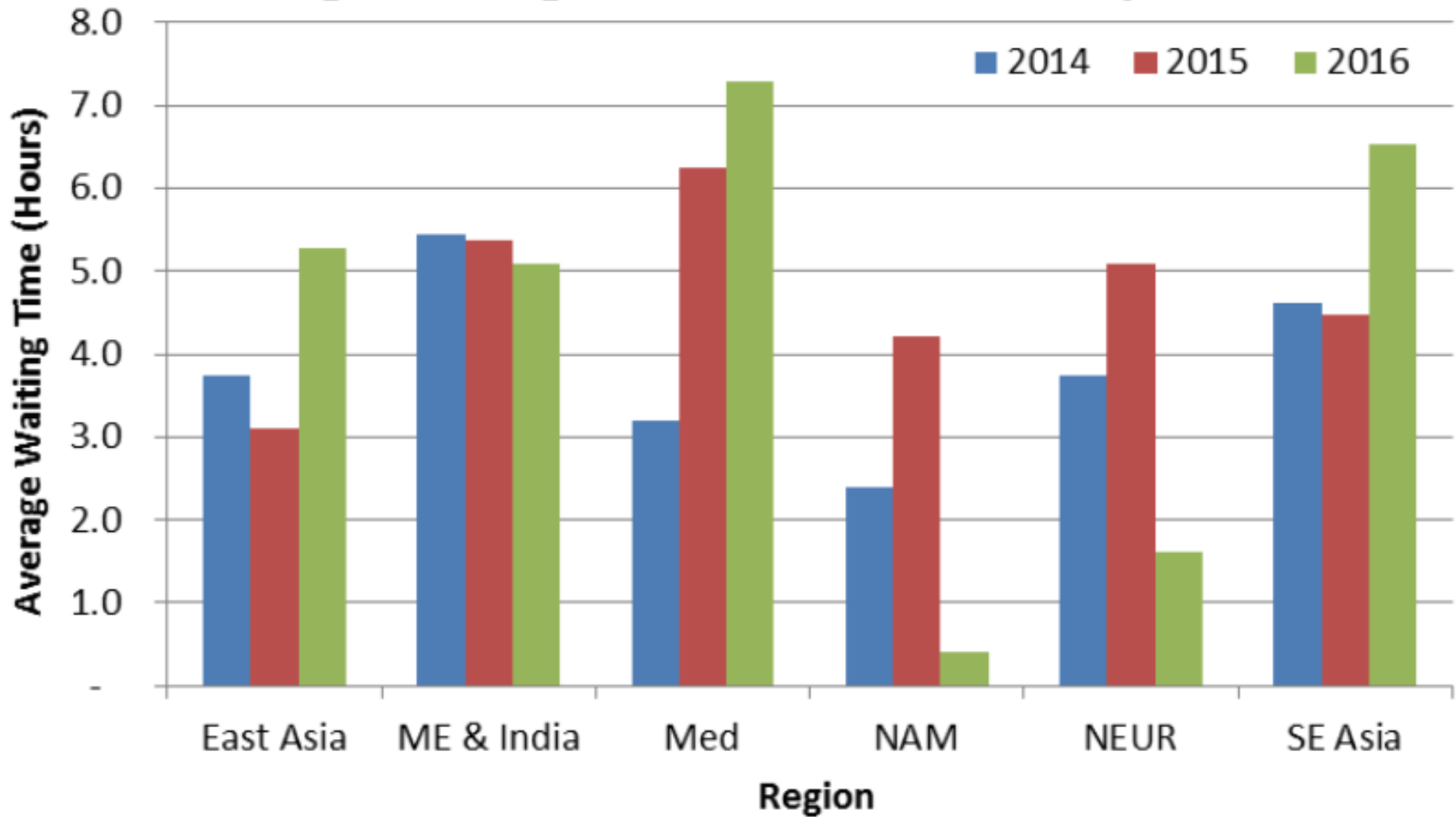
- Berth Productivity: Crane Moves Per Hour + Arrival Process (All fast, First Move) + Departure Process (Last Move, Last Line)
- Port Productivity: Berth Productivity + Waiting Time + Steam-in (Harbor Limits, All Fast)
- Steam-in Time / Steam-Out Time
- Average Waiting Time
- Average Call Size
- Average Moves per Call
- Total Idle Time in Port
- Total Active Time in Port

## Average Call Size Development - Top 30 Ports



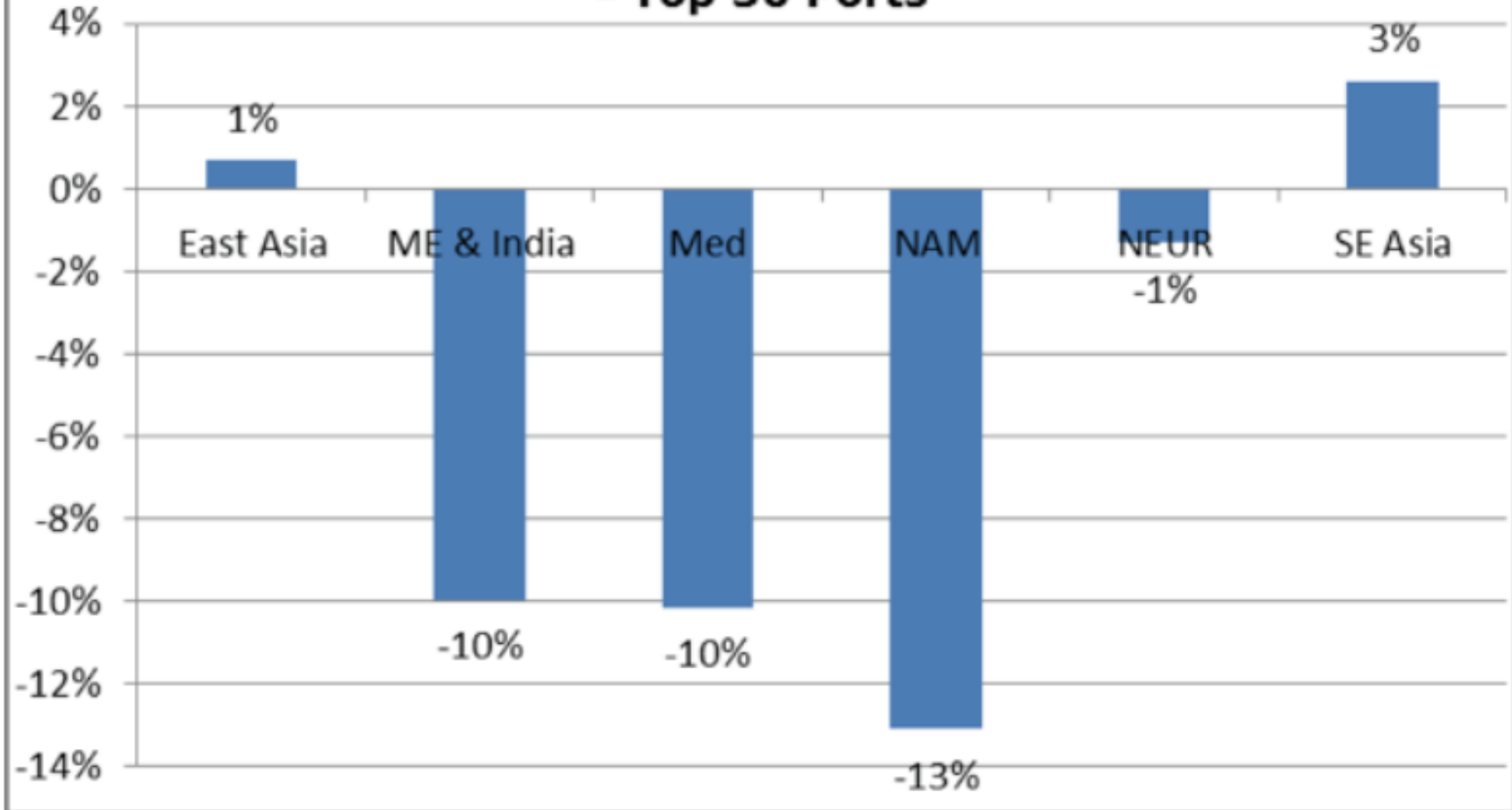
Source: IHS Markit / Journal of Commerce

## Average Waiting Time - 2014 - 2016 - Top 30



Source: IHS Markit / Journal of Commerce

## Relative Productivity Development - 2014 to 2016 - Top 30 Ports



Source: IHS Markit / Journal of Commerce

# Inefficiencies in Current Operations

## **Mistiming**

- Port authorities don't have good visibility into vessel ETAs
- Berth Windows not always adjusted for larger vessels
- Berth availability often isn't aligned with schedules
- Ships burn more fuel than needed when they speed to unavailable berths
- Late notifications of vessel schedule changes
- Pilots often aren't informed of early completions, chance for early departures

## **Lost Ops Management, Risk or Revenue Opportunities**

- Ship profiles sometimes inaccurate
- Terminals unable to validate load plans until arrival
- Terminals can't see vessels' past terminal needs
- Carriers often have little-to-no visibility in berth ops until arrival
- Carriers often have no input on exceptions
- Poor stowage planning creates many problems/lost opportunities including inability to accept last minute loadings

## What is at Stake?

- Competitive Position
- Cost Reductions (Fuel, etc)
- Revenue
- Untapped Cargo Capacity!





JUNE 2017

**PORT PRODUCTIVITY:**  
Finding new efficiencies  
through collaboration

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Produced by



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and



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