Turbulent Waters for Ocean Carriers and Ports in the Container Trade

AAPA 2017 Planning for Shifting Trade

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GLOBAL REACH. LOCAL RESULTS.

Overview

- State of the Container Liner Industry
  - Supply and Demand Dynamics
  - Freight Rates and Carrier Financials
  - The Carrier and Alliance Landscape
  - Implications for Ports and Terminals
- New Landscape of Mega Global Shipping Alliances
- Container Shipping Trends
- Port and Infrastructure Adaptations
- Strategic Solutions for Ports and Terminals in Managing in this Environment

Oversupply and moderating demand have pressured the container industry for almost a decade

Supply and Demand Dynamics

- The global container shipping trade is expected to be marked by a persistent supply-demand imbalance over the coming 12-18 months
- FY2017 volume demand growth forecast for North America is +2.1%, with an estimated capacity supply growth of 3-3.5%
- Carriers will continue to face slowing demand growth, a weak freight rate environment, as well as lingering excess capacity and ongoing consolidation
- Disciplined capacity management remains key for shipping lines

Freight Rates and Carrier Financials

- The supply and demand imbalance has pushed freight rates to levels hardly covering fuel, driving most carriers deeply into the red
- Ocean carriers could lose up to $10 billion worldwide in 2016
- Expect continued container shipping freight rate volatility with general downward pressure

Industry underperformance and weak earnings has driven a trend of consolidation

The Carrier and Alliance Landscape	• 2016 saw unprecedented M&A, carrier exit, restructuring and selling non-core assets • Four global shipping alliances in 2016 will consolidate to just three mega global shipping alliances by Q2 2017 • Driven by cost reduction motives, carriers will continue to deploy (and cascade) larger vessels

Implications for Ports and Terminals	• Changes in shipping will require significant infrastructure investment and increased efficiency at the individual port level to adapt to increased ship sizes and productivity objectives
	• Acquisition opportunities for investors and for container terminal consolidation are on the rise. Some recent examples are:
	    • CMA-CGM/APL
	    • Maersk Line/Hamburg Sud
	    • China Shipping/COSCO
	    • MOL/Brookfield
	    • Maher Terminal/NYK

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New Landscape of Global Shipping Alliances

Top 15 Global East-West Carriers

The Alliance Landscape in 2017

- The alliance landscape has been reduced from four to three (more powerful) global alliance groupings
- Factoring in the latest round of acquisitions, 15 of the top global carriers will be reduced to 11 leading players:
  - COSCO and CSCL have completed their merger
  - CMA has completed its merger of APL/NOL
  - Hapag-Lloyd is finalizing its acquisition of UASC
  - Maersk will be acquiring Hamburg Sud
  - The J-Lines (NYK, K Line, MOL) will merge container shipping operations
- Market pressures will force ongoing consolidation of both alliances and carriers into 2017 and beyond

Carrier	Global Market EW Share	Old Alliance	New Alliance	New Alliance Global EW Share
Maersk	15.4%	2M	2M	29.3%
Hamburg Süd	0.7%		2M	
MSC	13.2%	2M	2M	
CMA CGM	12.8%	O3	Ocean	35.6%
COSCON	10.6%	CKYH-E / O3	Ocean	
Evergreen	7.9%	CKYH-E	Ocean	
OOCL	4.3%	G6	Ocean	
Hapag-Lloyd	7.5%	G6	THE Alliance	27.6%
UASC	3.6%	O3	THE Alliance	
J-Lines				
NYK Line	4.6%	G6	THE Alliance	
K Line	3.7%	CKYH-E	THE Alliance	
MOL	3.5%	G6	THE Alliance	
Yang Ming	4.7%	CKYH-E	THE Alliance	
HMM	3.0%	G6	???	
ZIM	2.2%	G6	???	
Hanjin *(Bankruptcy)*		CKYH-E		

Source: Alphaliner December 2016

There is a clear market gap emerging between the top container lines and others such as OOCL, Yang Ming, HMM and ZIM

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Port Authorities and Terminal Operators are facing a perfect storm

- Port Authorities and Terminal Operators are facing a perfect storm of rising costs due to bigger ships, greater business risks from larger liner alliances, softening global demand growth and pressure on terminal handling prices from cash-strapped carriers
  - Containerships have grown larger at a rapid pace over the last decade
  - There are connectivity issues between marine infrastructure and landside infrastructure
  - New alliance formations are creating price pressures for ports and terminals

Port Authorities and Terminal Operators face a Perfect Storm

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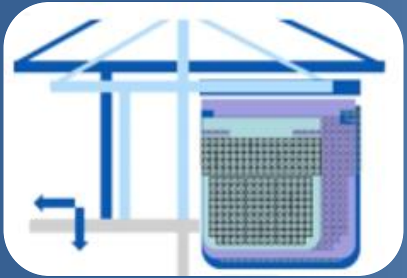
Port Authorities and Terminal Operators are Facing Unprecedented Challenges



Larger Ships
- Demand for fewer, larger terminals with reduced port calls
- Consolidated port calls; greater throughput peaks, straining connectivity
- Increased pressure for higher port handling and productivity
- Increasing Capex and Opex for ports and terminals

Carrier Alliances
- Customer size and complexity increasing
- Concentration of volumes
- Network and port of call changes
- Carrier stakes in terminals complicate matters

Carrier Weak Financials
- Sustainability of Carriers?
- Pricing pressures on terminals and ports
- Rationalization – takeovers and mergers

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Strategies for Managing the Environment

Greater Collaboration between Port Authorities, Terminal Operators, Alliances and Carriers, Local and Federal stakeholders

Synergies have the power to significantly increase efficiency in the industry

› Greater port authority and terminal operator collaboration

› Terminal consolidation

› Improvements on landside intermodal connectivity points: rail, barge, roads

› Automation and Technology Improvements

› Private Public Partnerships

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