

The Latest Global and Regional Trends in Port Sector

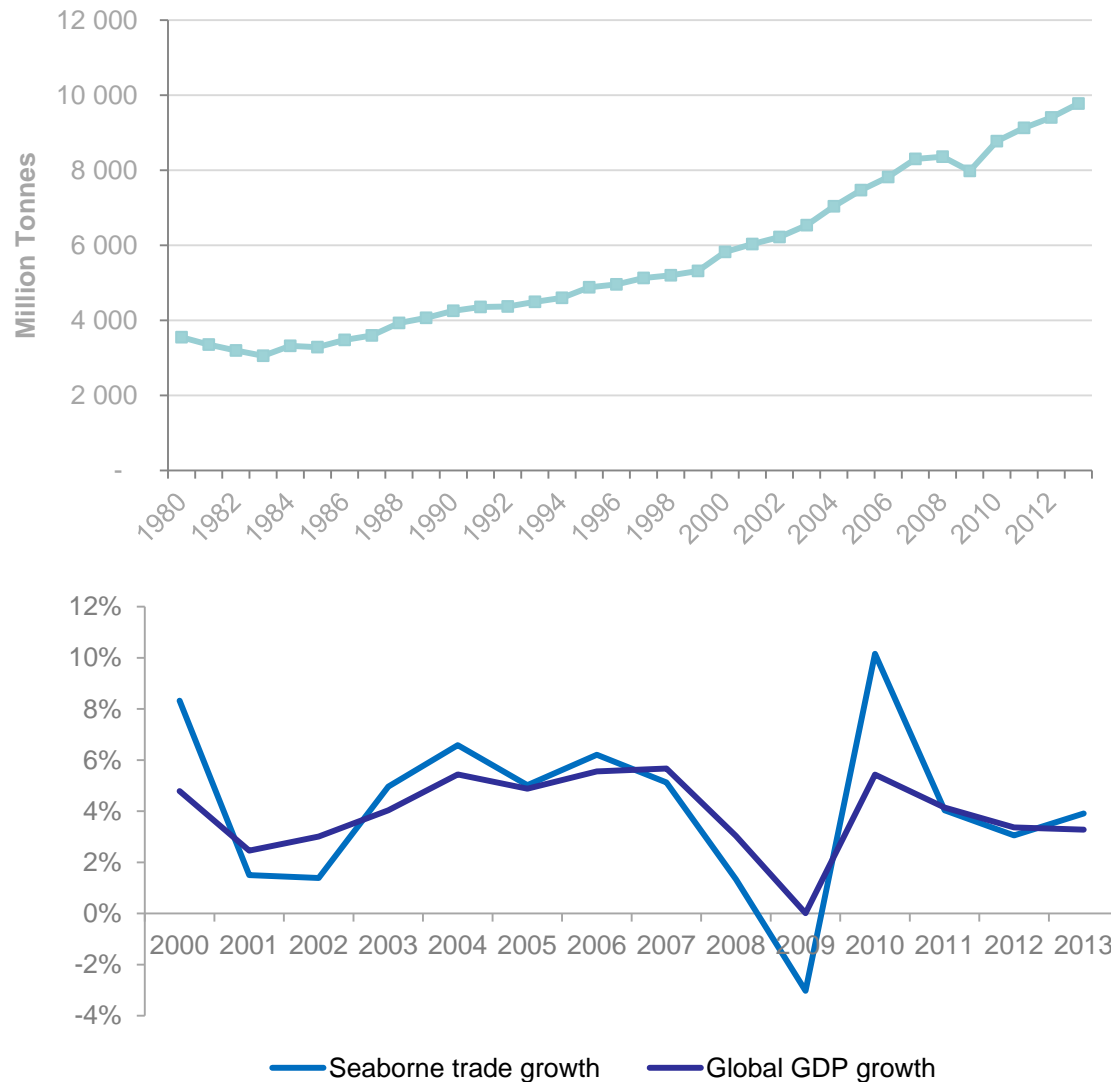


COMCEC

Standing Committee
for Economic and Commercial Cooperation of the
Organization of Islamic Cooperation

5TH MEETING OF THE COMCEC TRANSPORT AND COMMUNICATIONS WORKING GROUP
Ankara, 12th February 2015

Development of global seaborne trade



Source: Drewry Maritime Research

The past 33 years (1980 – 2013)

Global seaborne trade growth

3.1%

World GDP grow

2.0%

World population growth

1.5%

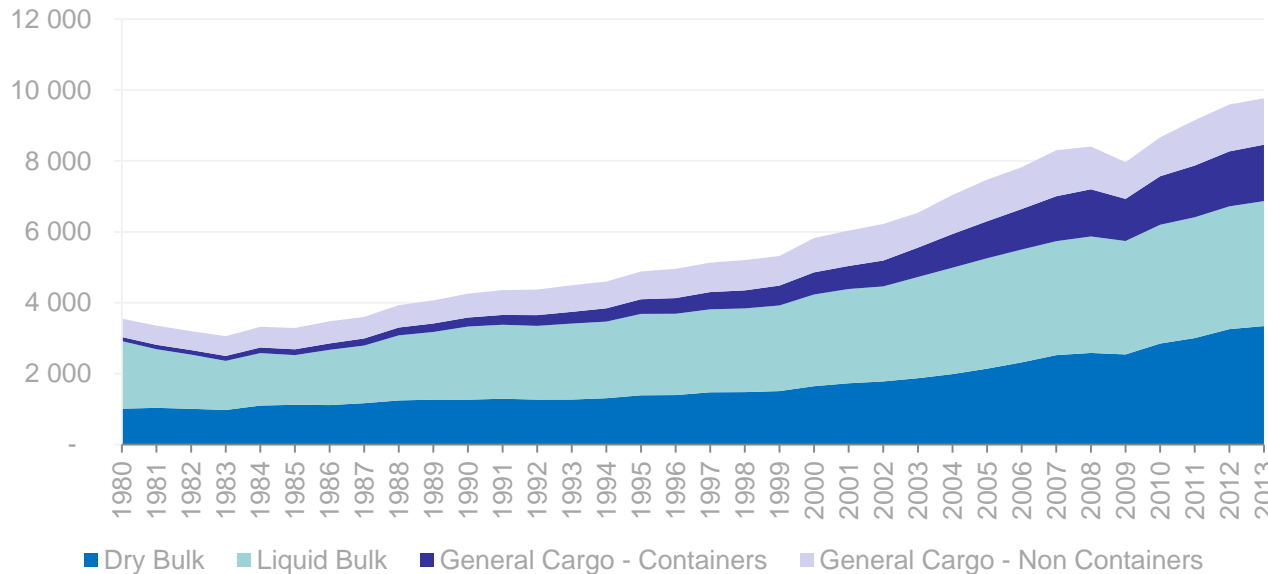
Urbanization factor

2.4%

Shipping capacity expansion

2.7%

Global seaborne trade – Key market segments



CAGR 1980-2013

► Dry Bulk:	3.7%
► Liquid Bulk:	1.9%
► Containers:	8.3%
► Non Containers:	2.9%

CAGR 2009-2013

► Dry Bulk:	7.1%
► Liquid Bulk:	2.4%
► Containers:	7.6%
► Non Containers:	6.0%

2000

► Dry Bulk:	47%
► Liquid Bulk:	31%
► Containers:	12%
► Non Containers:	10%

2013

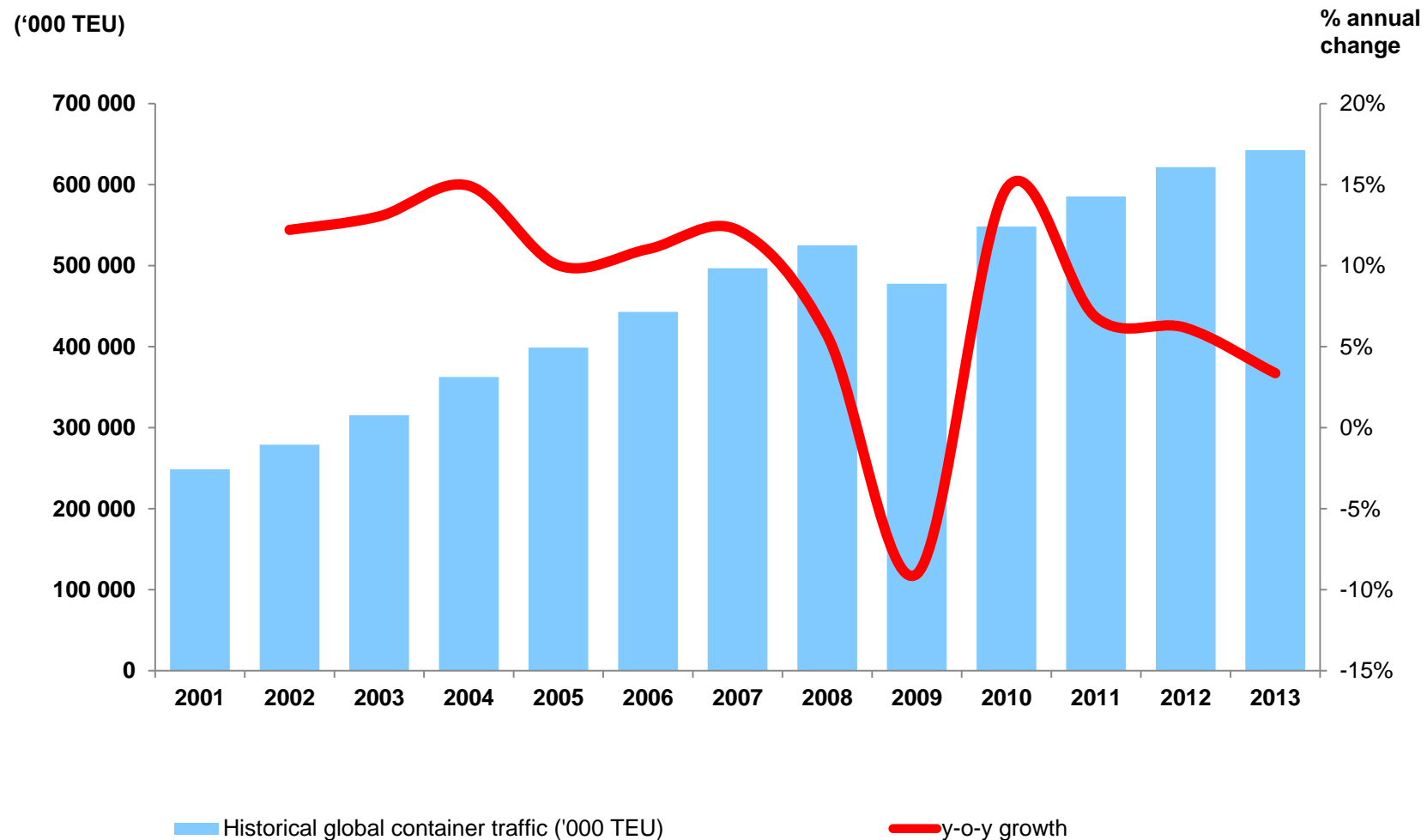
► Dry Bulk:	34%
► Liquid Bulk:	36%
► Containers:	16%
► Non Containers:	14%

2. KEY INDUSTRY TRENDS

- ✓ Demand growth
- ✓ Shipping lines
 - Deployment of ever-larger containerships
 - Expansion of shipping line alliances
 - Financial pressures on shipping lines
- ✓ Terminal Operators
 - Cooperation among global/international terminal operators on the rise
 - Rapidly emerging international terminal operators/owners



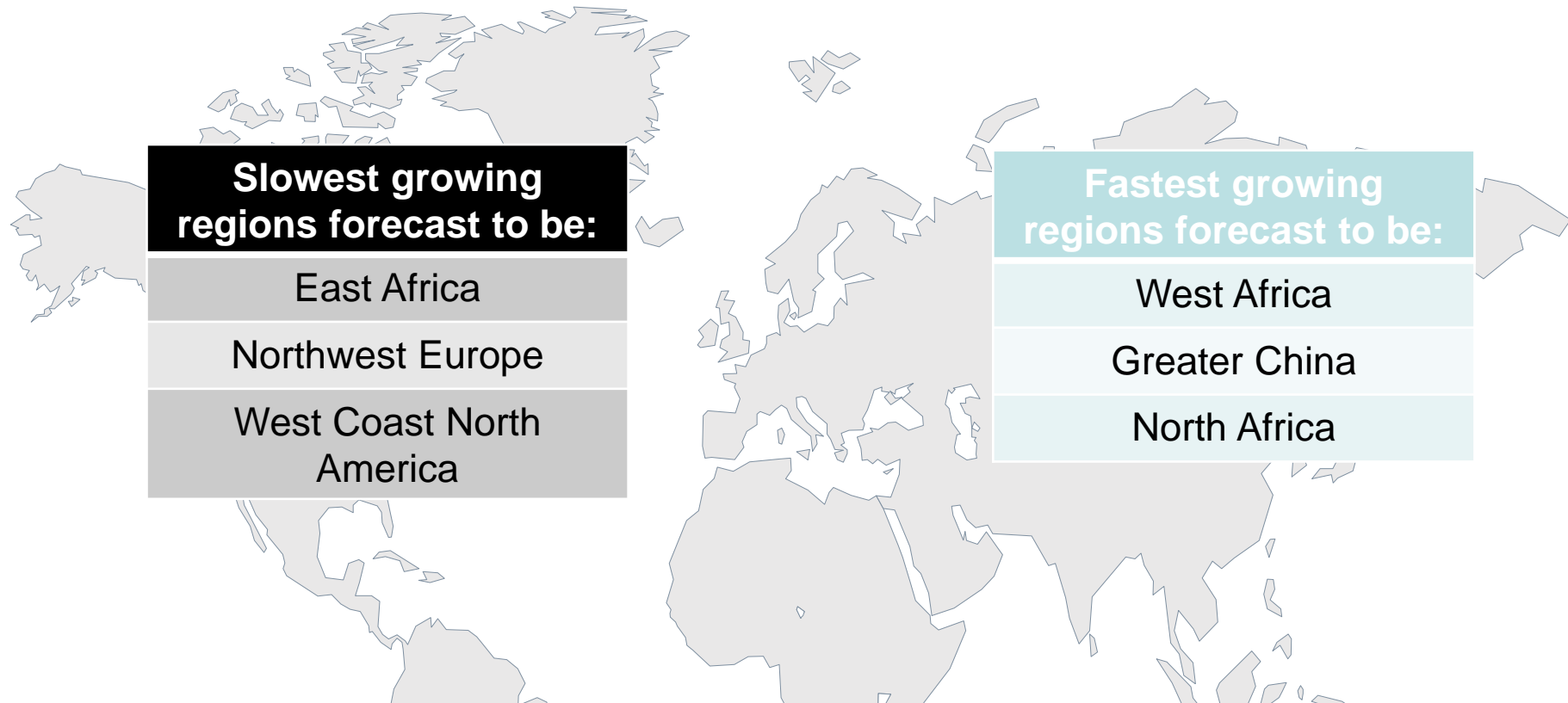
Global Demand growth and volatility 2000-2013



Source: Drewry Maritime Research

Demand and capacity forecasts

- 5 year forecasts of container port demand and capacity for **20 world regions**



- Global container port throughput to exceed 840 million teu by 2018, growing by 5.6% per annum on average
- Globally, average terminal utilisation is forecast to increase from 67% in 2013 to 75% in 2018; there are wide variations at the sub-region level though

Ships



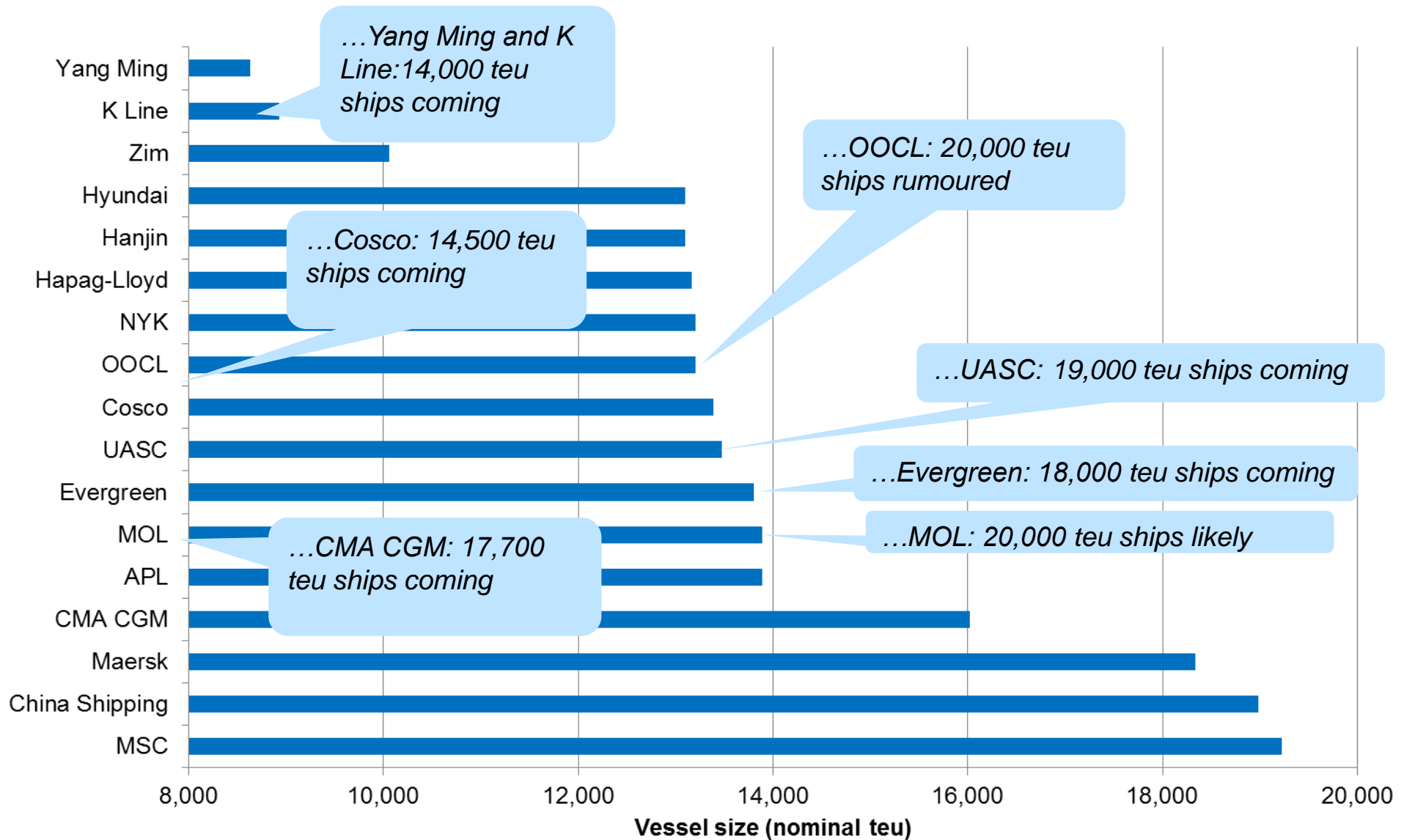
Cascading



Alliances

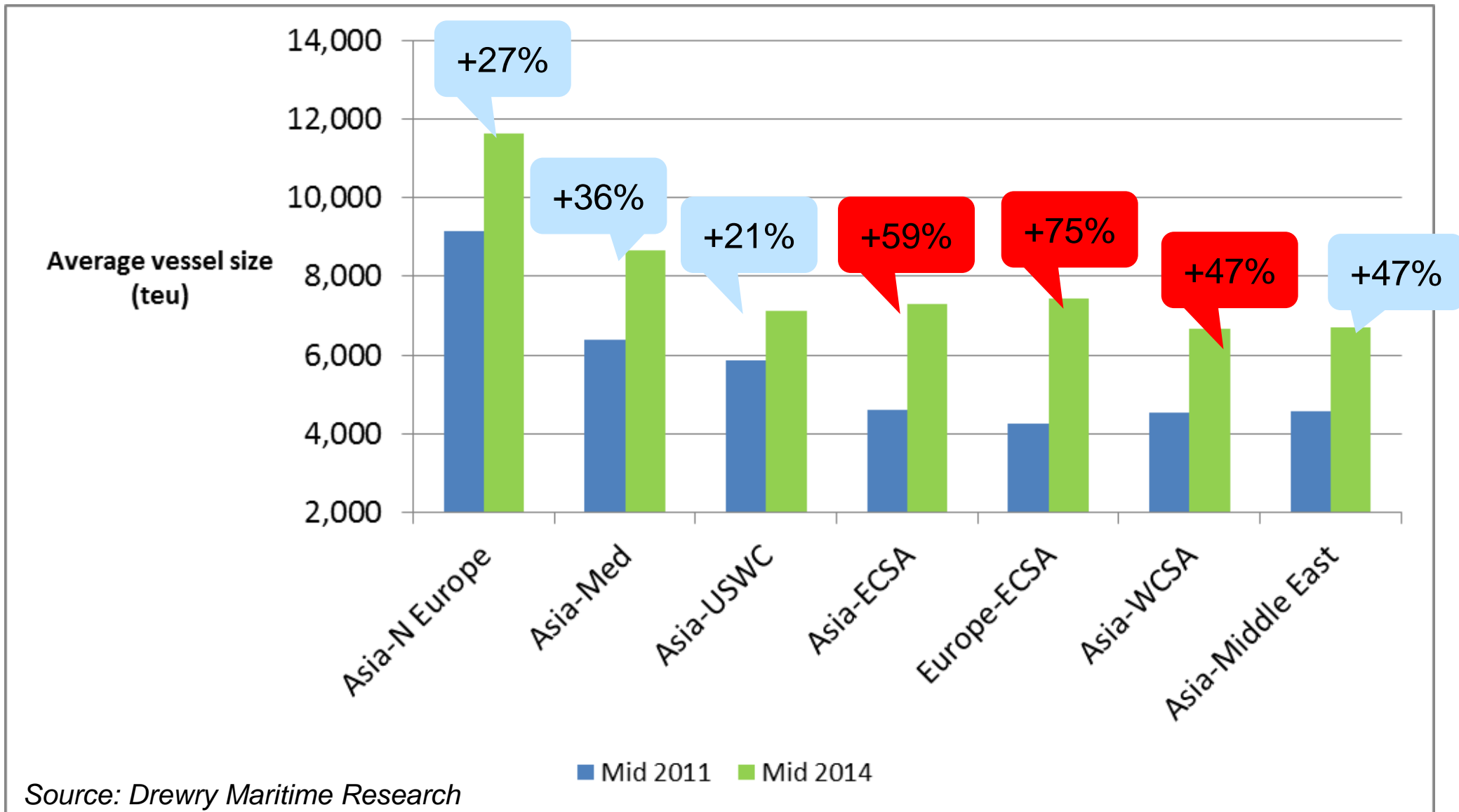


Deployment of ever-larger containerships - Largest vessels deployed in Asia-North Europe route, 2015



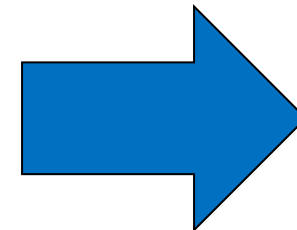
Source: Drewry Maritime Research

Increase in average container ship size, 2011-2014



Expansion of shipping line alliances

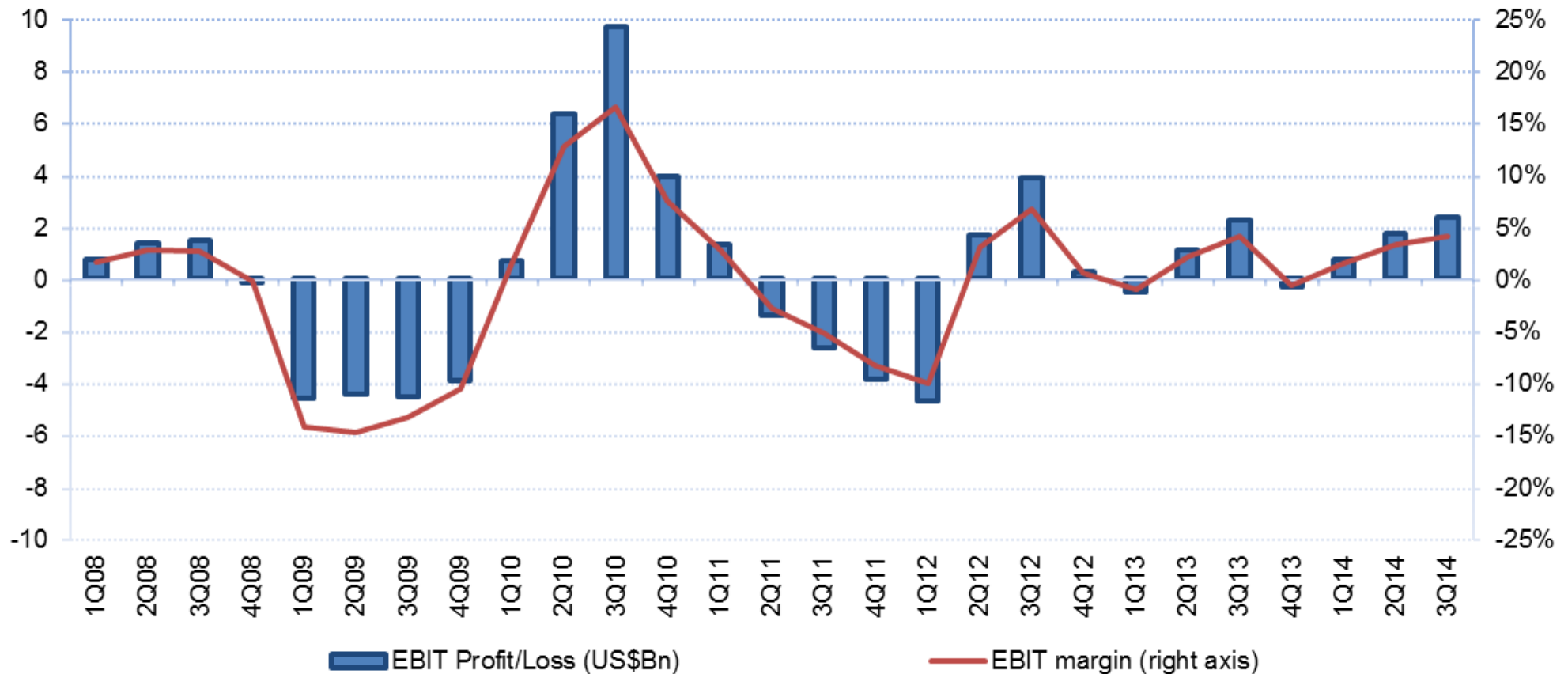
Shipping line	Alliances/vessel sharing agreements (VSAs)	
Maersk	P3 (denied)	2M
MSC		
CMA CGM		China Shipping/UASC
China Shipping		
UASC		
NYK	Grand Alliance	G6 Alliance
OOCL		
Hapag-Lloyd		
APL	New World Alliance	
MOL		
Hyundai		
Cosco	CKYH Alliance	CKYHE Alliance
K Line		
Yang Ming		
Hanjin		
Evergreen	Independent	
16	6	4



More
convergence?

Financial pressures on shipping lines – a rollercoaster ride

Estimated carrier industry EBIT profit/loss and EBIT margins, 1Q08-3Q14



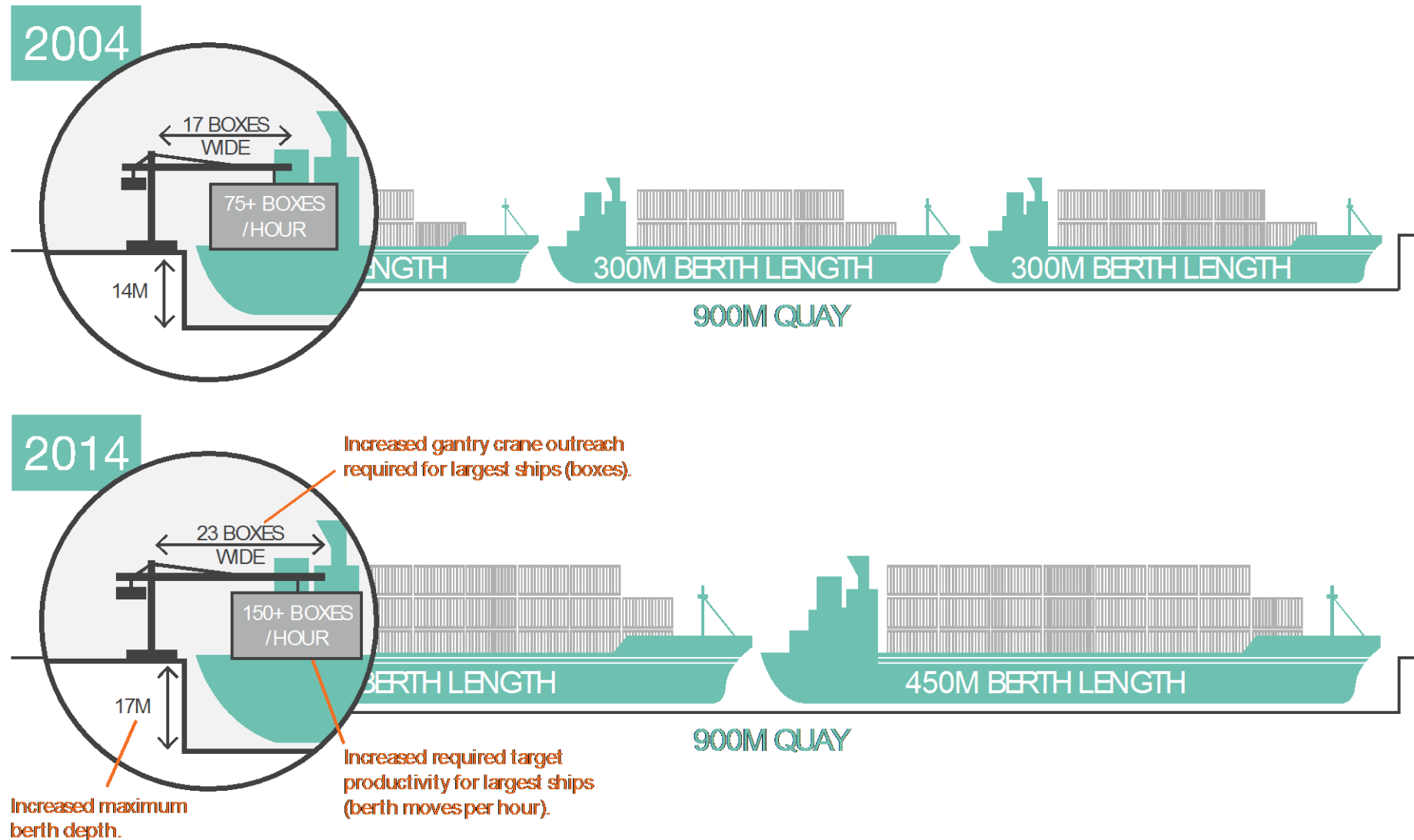
Source: Drewry Maritime Research

EBIT Profit/Loss (US\$Bn) (left axis)

EBIT margin (right axis)

The Terminal Operators and Ports: run fast to keep up

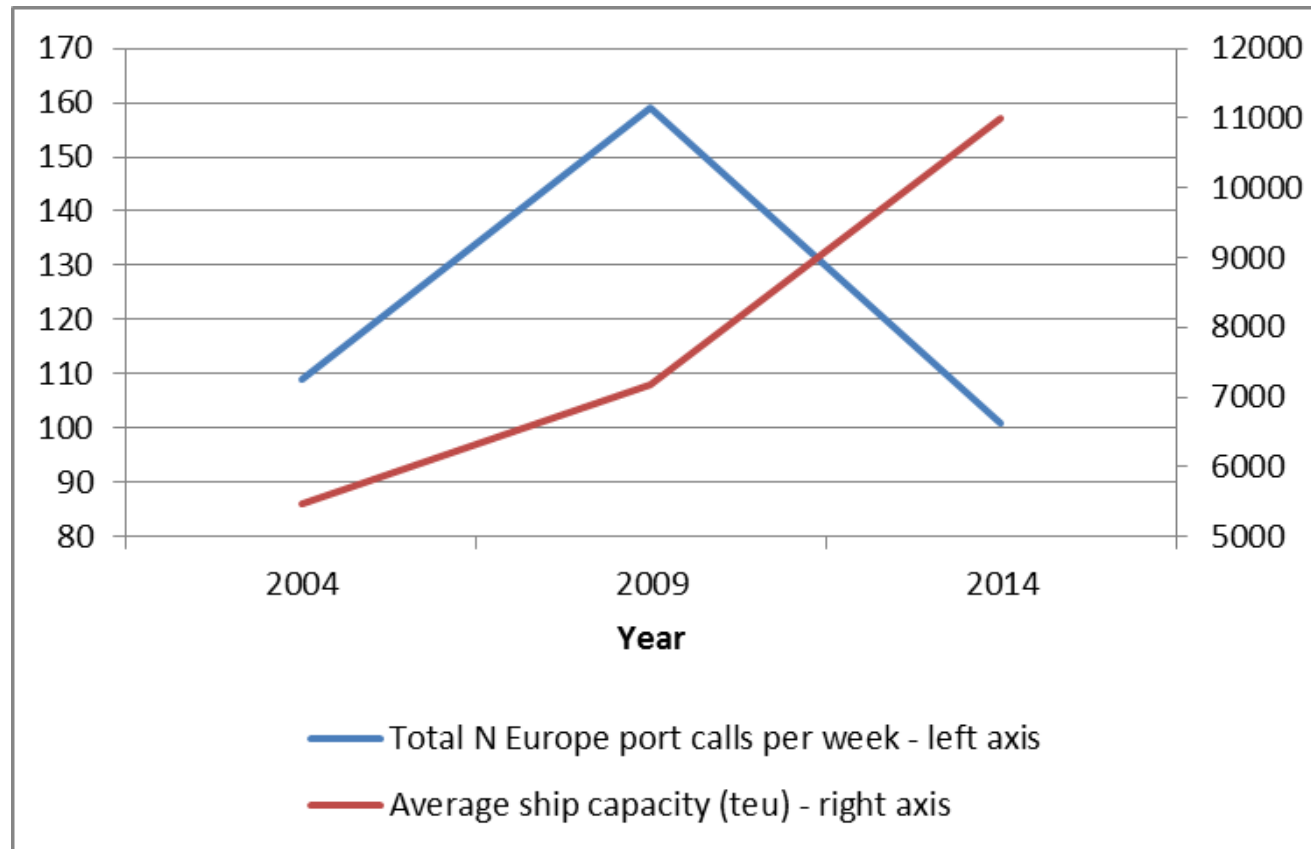
Investment required to remain “attractive”



The Terminal Operators and Ports: run fast to keep up

Fewer vessel calls and larger batch sizes

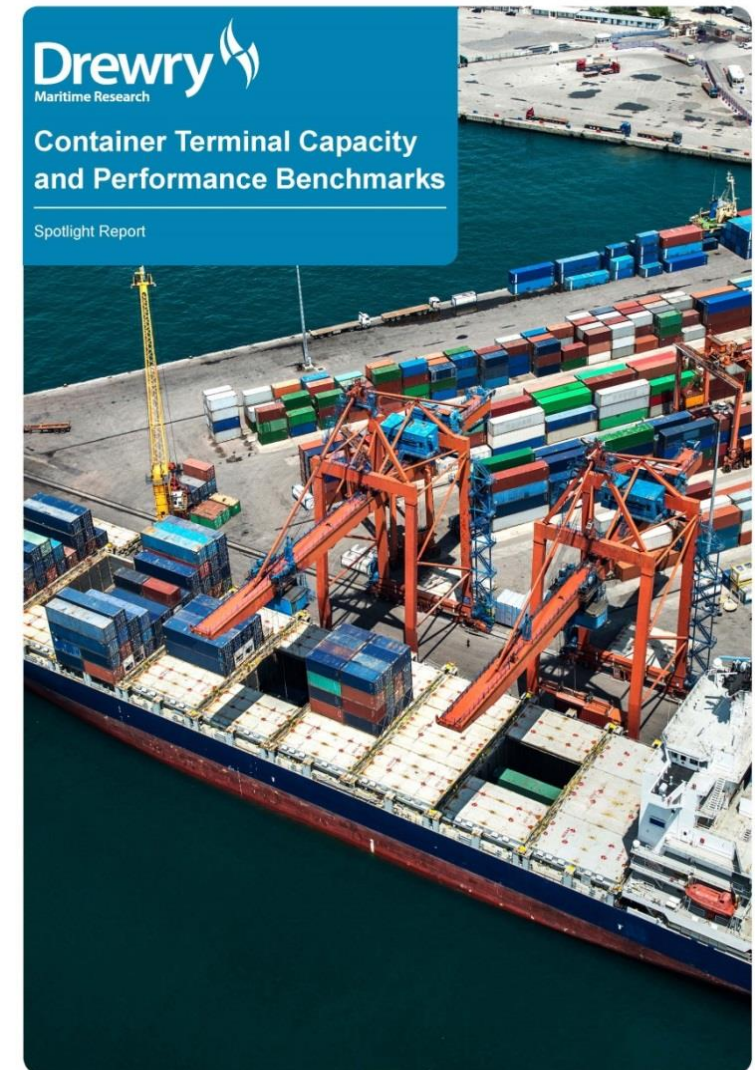
Total North European port calls vs ship size



- The number of port calls in North Europe reduces and the volumes handled per port call increase

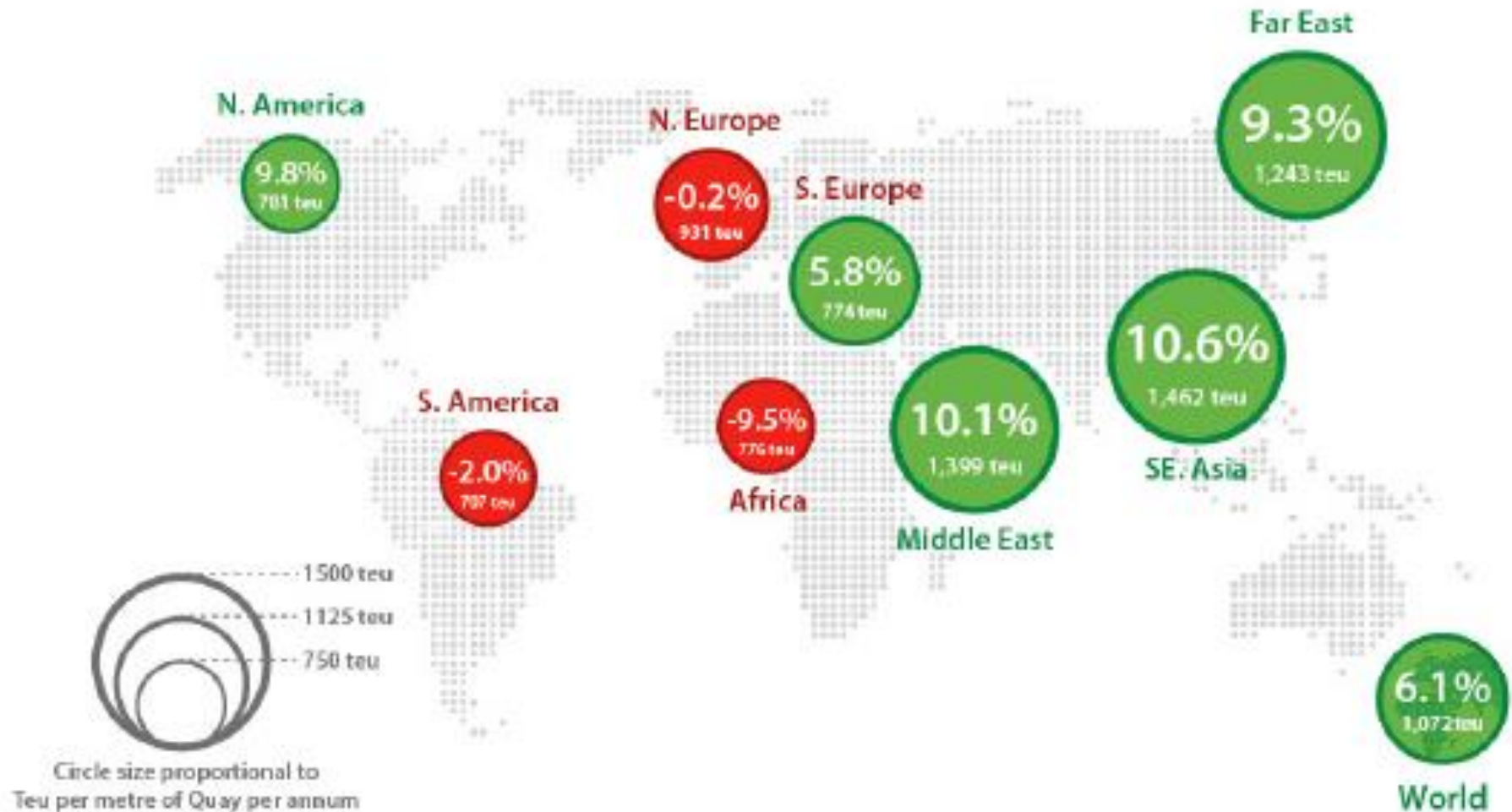
Terminal industry performance

- ✓ Actual performance of a sample of around 500 terminals worldwide, each with a throughput of > 200,000 teu per annum
- ✓ The analyses reflect the most important - and expensive - infrastructure and equipment assets
- ✓ Covers the three key aspects of container terminals:
 - ✓ Quay line
 - ✓ Yard
 - ✓ Ship-to-shore gantry cranes
- ✓ Deliberately distinct from typical service level related measures such as crane moves per hour



Global container terminals: Key asset performance metrics

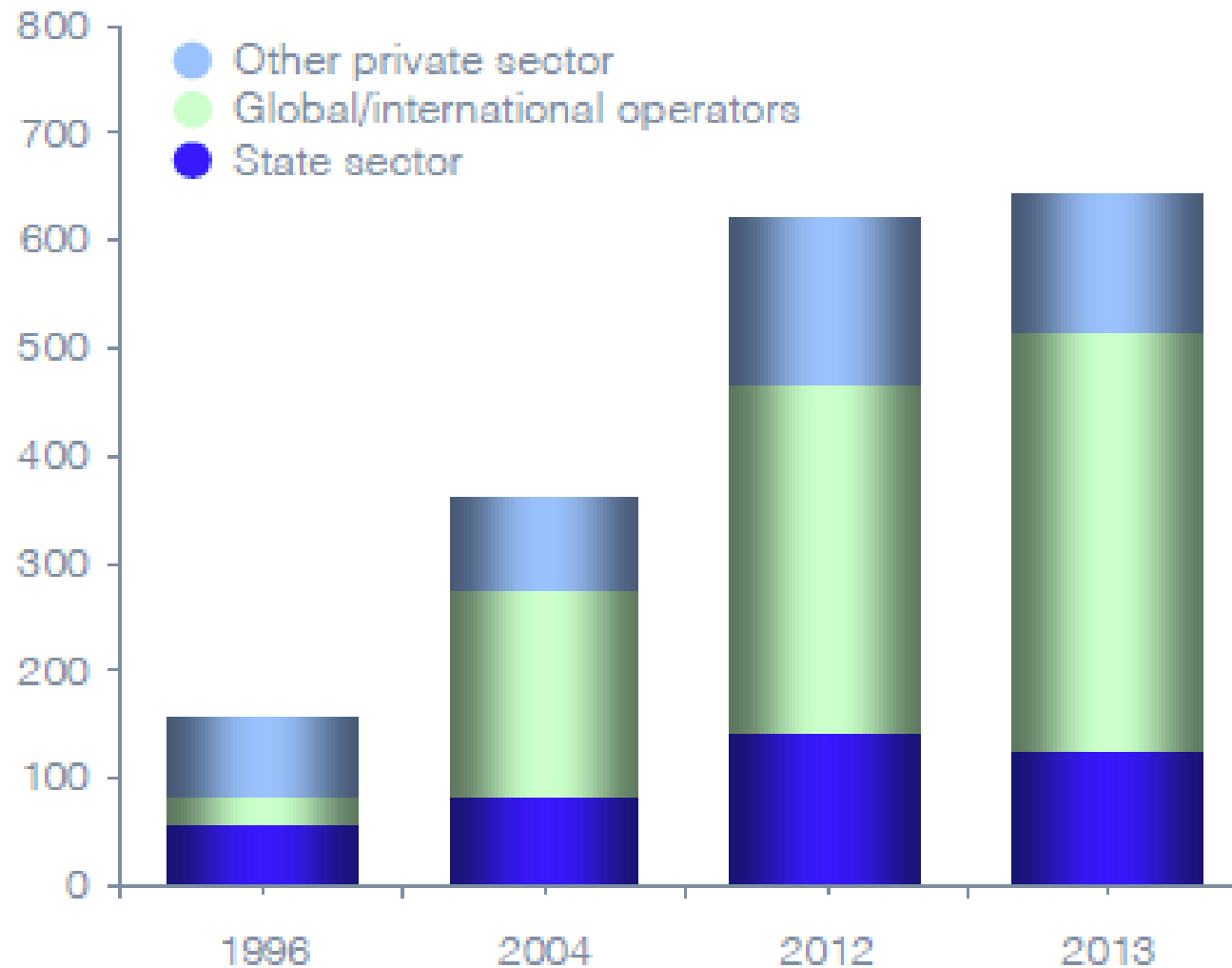
Quay-line performance by world region, 2011-2013 % change



Source: Drewry Maritime Research

Terminal operators

League tables of GTOs/ITOs



Source: Drewry Maritime Research

Key trends in privatisation – Access to private capital

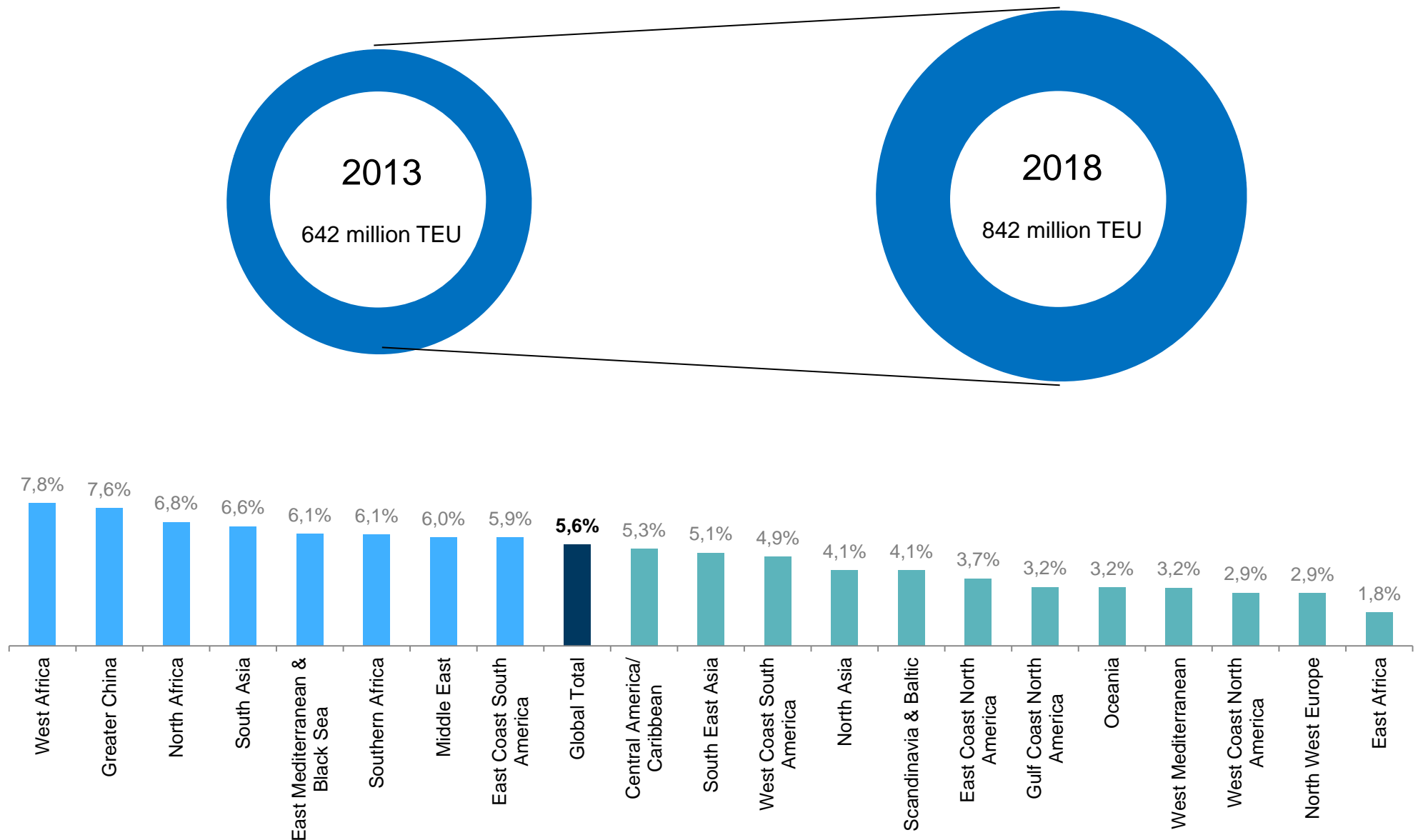
– Access to expertise



What will the container shipping and port world look like in 5 years?



Sheer scale of today's container port industry



What will the container shipping and port world look like in 5 years?

No change	<u>2000</u>	<u>Today</u>	<u>2020</u>
	Empties share	~20%	~20%
	Typical EBITDA margins (gateway terminals)	~40%	~40%
	Typical EBITDA margins (transshipment terminals)	~20%	~20%

What will the container shipping and port world look like in 5 years?

Big changes

	<u>2000</u>	<u>Today</u>	<u>2020</u>
Largest container ship (teu)	7,060	18,000	22,000+
Super post-Panamax gantries	20	1,160	2,000+
Market share top 4 terminal operators *	~25%	~41%	?
Number of major liner alliances/players	7	3	2?

* total teu basis

What will the container shipping and port world look like in 5 years?

Big changes

	<u>2000</u>	<u>Today</u>	<u>2020</u>
World port teu throughput	235m	623m	~1 billion
Global transshipment teu	58m	175m	~320m
Asian ports' share of world teu	47%	56%	65%+
Chinese ports' share of world teu	16%	30%	40%+

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Our services include:

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Maritime Advisory

Supply Chain Advisory

Maritime equity research

World Container Index

Thank you!

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DP World

November 2014

Analyst Team:

Headline Analyst: [Name] | Senior Analyst: [Name] | Analyst: [Name]

By

Drewry
Maritime Research

Drewry Maritime Research
1000 Corporate Blvd, Suite 2000
New York, NY 10018-1000
Tel: +1 212 317 3000 | Fax: +1 212 317 3001
Email: info@drewry.com | www.drewry.com

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Publications/Analysis
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Growth Focused and Global

DP World

November 2014

Analysis Team:

Headline: DP World's Growth Focus and Global Expansion
Key Message: DP World's Growth Focus and Global Expansion
Key Message: DP World's Growth Focus and Global Expansion

By

Drewry
Maritime Research

Drewry Maritime Research
1000 Lakeside Drive, Suite 1000
New York, NY 10022-1000
Tel: +1 212 211 1000 Fax: +1 212 211 1001
Email: dmr@drewry.com www.drewry.com

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Maritime Research

Drewry Maritime Research produces a range of titles and reports to keep clients up to date on every key maritime sector from dry bulk to chemicals, LPG to ferries with detailed analysis and insightful commentary on past, present and future sector performance.



ANNUALS – the previous year in focus with in-depth analysis and commentary on a market sector accompanied by 5 year predictions.



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DP World

November 2014

Analyst Team:

Head of Equity Research: [Name] | Head of Shipping: [Name] | Head of Global: [Name]

By:

Drewry
Maritime Research

Drewry Maritime Research
1000 Lakeside Drive, Suite 1000
New York, NY 10022-1000 | Tel: +1 212 312 3000
Email: [Email Address] | Web: [Website]

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Maritime Advisors

Drewry's consulting engagements have ranged from high-level strategic planning to practical operational advice



Strategic planning and analysis

position the business in the short, medium or long term



Commercial due diligence – assess the market, the target and financial projections



Investment and divestment appraisals develop market entry strategies and financial returns



Network strategy redesign shipping networks, exploit market opportunities



Pricing structures and tariff levels align with market dynamics and profit targets



Vessel acquisition strategies and finance options identify and highlight competitive advantage and profitability



Competition freight cost benchmarking measure competitive performance and identify improvements



Market studies and forecasting identify trends and opportunities



Shipping economics and vessel management studies identify efficiencies and optimise financial costs



Inter-port and intermodal competition assess port competitiveness as a part of an integrated supply chain

Drewry advisory services

We have built a solid contact network, working with various participants in the shipping market and financial institutions

Overview of our client base:



Investment banks

- Commercial banks
- Private equity
- Venture capitalists
- Hedge funds
- Private investors



Logistics providers

- Port operators
- Manufacturers
- Lawyers
- National governments
- Industry and trade institutions



Mining companies

- Power and energy companies
- Commodity traders
- Steel companies
- Shipping companies
- Shipyards

Case study

Gothenburg port restructuring advisory (2008-2011)



The municipal government of Gothenburg, Sweden took the decision to restructure its port authority company into the landlord-tenant model as recommended by Drewry and this was successfully achieved with over a three year period

Gothenburg Port Authority

The task:

To identify the most suitable institutional structure for the port and act as advisor in the implementation process, including the creation and sale of three terminal operating companies



- ▶ Analysis of the various port authority institutional models worldwide. The strengths and weaknesses of each option were assessed specifically for the client port in question and a recommendation made.
- ▶ Restructuring the port dues tariff
- ▶ Design and drafting concession agreements: definition of the responsibilities and expectations of each party
- ▶ Modelling of the land lease and royalty revenues, examining current contracts, tariffs and pricing practices, and then proposing a new pricing policy based on long term sustainability. The work also sought to align revenues more directly with costs, to increase transparency and accountability.
- ▶ Advising on the commercial strategy
- ▶ Drewry played central role in the competitive sale process:
 - The car terminal was concessioned to local firm Logent
 - the RoRo terminal concessioned to a JV of DFDS/Cobelfret
 - the container terminal concessioned to APM Terminals.

The result

The Gothenburg Port Authority was restructured with three newly formed terminal operating companies successfully put through a competitive sale process, introducing private owners on long term concessions

Case study

Virginia Port Authority – Commercial and institutional advisory role (2013)



Drewry provided advice and guidance to the VPA Board as it weighed up bids from private operators for a long term operating concession, as well as the option of continuing with the current institutional structure

The Virginia Port Authority (VPA) is the organisation responsible for owning and operating the Port of Virginia, one of the leading ports on the US east coast, handling 2 million teu p.a. as well as being one of the largest coal export ports in the world.

To provide the VPA Board of Commissioners with advice and support as it considers the bids on the table to operate the port's container terminals under a long term (30+ year) concession. These bids to be weighed against the option of continuing with a revised version of the current operating arrangement

Reading, reviewing and commenting on written material as well as providing ad hoc written and verbal advice and guidance. The main focus was analysis and feedback on draft term sheets (concession agreements) which were being discussed and negotiated with bidders as part of establishing their final bid positions.

Presence, both in person and via phone and email, as a source of guidance and advice whenever needed.

- Comment and feedback on the financial and other value of the external bids versus the status quo option
- Contribution to the bid evaluation methodology and input to the scoring process
- Review and comment on the draft term sheets being discussed with each bidder
- Provide guidance on issues such as tariff regulation and operating standards under concession agreements
- Reviewing of Board presentation material
- Attendance at Board meetings

- ▶ Participation in discussions and conference calls as part of the working group review team
- ▶ Written feedback on draft concession agreements/term sheets
- ▶ Written guidance on issues such as operating standards and tariff regulation
- ▶ Review of and contribution to material to be provided to the Board
- ▶ Attendance at VPA Board meetings where the options were reviewed and decided upon



The result

The Client benefitted from Drewry's global experience of port and terminal privatisations and concessions, as well as its deep understanding of institutional structures. This helped to ensure that the VPA Board made a well informed and balanced decision on a key issue facing the port – and opted for a restructured status quo.

Case study

Analysis and forecast of the ship fleet structure for Port of Melbourne Corporation



"The study highlighted the imminent changes in the ship fleet structure under various scenarios which were insightful for long term strategic port infrastructure planning considerations"

Christopher Ong, General Manager Infrastructure Planning, Port of Melbourne Corporation

Port of Melbourne Corporation (PoMC)

Port of Melbourne (PoM) is Australia's largest container and general cargo port, handling around 37% of the nation's container trade.

More than forty shipping lines, make around 3100 ship calls a year to Melbourne, providing services to ports in all major parts of the world.

The port is at the north of Port Phillip Bay. It is serviced by more than 100 nautical miles of shipping channels and fairways between the Port Phillip Heads and the berths on the Yarra River, at Williamstown and Station Pier, Port Melbourne.



To conduct a study on the profile of the ship fleet that will operate through Victorian commercial ports to the year 2050. The forecasts will form the basis for determining PoMC's port infrastructure capacity and of future maritime infrastructure requirements.

Drewry was commissioned in 2010 to advise on the ship fleet profile outlook to 2050 to inform the review of the PoMC's Port Development Strategy.

Drewry first carried out an investigation into the key trends, drivers and factors affecting developments in ship design, size and other technical parameters across the shipping industry with particular emphasis on the types of vessels calling at the Port of Melbourne.

An additional task was to forecast the ship fleet profile, number of calls and design ships to 2050 for the Port of Melbourne for all shipping sectors.

The project team carried out a detailed investigation of key trends in ship sizes and other technical characteristics and interviewed port users. The detailed analysis and forecast covered technical issues, ship design and size developments as well as fleet structure, for containerships, ro-ro, car carriers, bulk carriers, MPV's, tankers and cruise ships

The resulting report also covered:

- ▶ Trends in ship design, size, fleet structure and associated equipment
- ▶ Historic analysis
- ▶ Orderbook analysis
- ▶ Factors influencing shipping trades, capacities and trends
- ▶ Impact of technology advancement
- ▶ Development of ship visits and analysis of ship utilisation through ports of Melbourne and Hastings
- ▶ Projections (ship size, call frequency distribution) and three development scenarios

Once the analysis was completed Drewry also provided recommendations on the design ships for the PoMC strategic infrastructure planning considerations.

The result

The study found that changes in containership sizes will have the biggest impact on PoM. Ships with capacity of 6,000-6,999TEU were identified as the main design class to be calling at the PoM over the period to 2030. An upper design class of 8,000-8,999TEU was also put forward as being a realistic maximum ship to call at PoM by 2015.

Case study

ABP refinancing commercial and technical due diligence (2011)

"We now have a long-term capital structure to match our business model and support our contracts and revenue streams. We have successfully diversified our funding and consolidated our key banking relationships to 11 from over 40"

Sebastian Bull, Chief Financial Officer, ABP

Associated British Ports (ABP) is UK's leading ports group, it owns and operates 21 ports in England, Scotland, and Wales, and handles approximately a quarter of the country's seaborne trade.

ABP's ports, together with the other transport-related businesses that constitute the ABP group, form a UK-wide network capable of handling every conceivable type of cargo.



This due diligence exercise has been carried out in order to support and inform ABP's term loan refinancing process and in particular provide lenders and rating agencies with an independent assessment of the business from a technical and commercial perspective.

Drewry in partnership with Arup was commissioned to carry out a comprehensive due diligence exercise on ABP, the UK's largest port operator with 21 ports handling over 120 million tonnes of cargo per annum.

The task was to support ABP in its requirement to refinance its debt and to provide independent advice to lenders, funders and ratings agencies in a form which they could place reliance on.

Work included UK port market overview, company specific analysis (market shares, competitive position, market outlook), contract reviews and review of company 5 year plan. All cargo sectors were covered including liquid and dry bulks, containers, RoRo as well as cruise.

Over few months, the project team carried out a detailed review of materials produced by ABP management, analysing historic demand growth, market shares, competition

- ▶ Drewry carried out the role of commercial advisor in conjunction with Arup as technical advisor for this assignment.
- ▶ Work included UK port market overview, company specific analysis (market shares, competitive position, market outlook), contract reviews and review of company 5 year plan, as well as presentations/Q&A sessions with lenders.
- ▶ Close interaction with the client management team and its advisors was required
- ▶ All cargo sectors were covered including liquid and dry bulks, containers, RoRo as well as cruise.
- ▶ Given the scale and variety of the portfolio, a key aspect was the need to focus on materiality

Once the team delivered robust and detailed due diligence report, they participated in presentations/Q&A sessions with over 10 different lending banks.

The result

ABP was able to achieve a successful UK£2.4bn refinancing exercise on terms regarded by the market as highly competitive

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Analysis Team:

Lead Analyst: [Name] | Senior Analyst: [Name] | Analyst: [Name]

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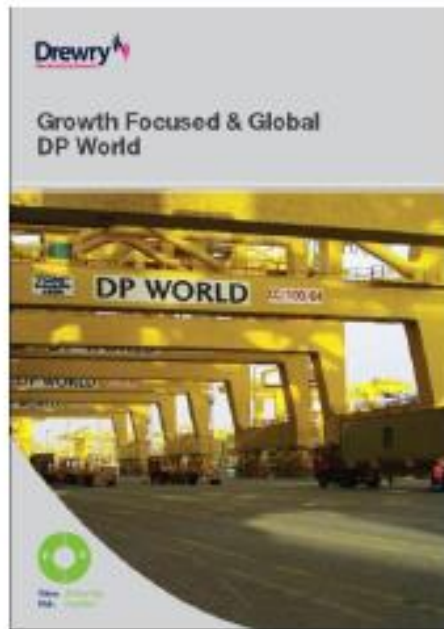
Drewry

Drewry Maritime Research
1000 Lakeside Drive, Suite 200, San Francisco, CA 94134
Tel: +1 415 774 1000 | Fax: +1 415 774 1001
Email: [Email Address] | Web: [Website]

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- In depth research reports, commentary and opinion on quoted maritime stocks including:
 - financial analysis
 - industry analysis
 - valuation
 - analyst results commentary and opinion
 - earnings guide

Product Offering – Coverage Universe



Port Operators	Liners	Container Leasing
Adani Ports & SEZ	AP Moeller-Maersk A/S	TAL International
Asciano	Neptune Orient Lines Ltd	Textainer
China Merchants Holdings	Orient Overseas International Ltd	Cai International
Cosco Pacific	China Cosco Holdings Co Ltd	Seacube
Dalian Port	China Shipping Container Lines Co Ltd	Touax
DP World	SITC International Holdings Co Ltd	
Global Ports Investments	Evergreen Marine Corp Taiwan Ltd	Container Manufacturing
Hamburger Hafen	Wan Hai Lines Ltd	CIMC
Hutchinson Port Holdings	Yang Ming Marine Transport Corp	Singamas
ICTSI	Hanjin Shipping Co Ltd	
Santos Brazil	Hyundai Merchant Marine Co Ltd	Containership Leasing
Tianjin Port Development	Mitsui Osk Lines	Costamare
	Kawasaki Kisen Kaisha	Danaos
	Nippon Yusen KK	Diana Containerships
	Regional Container Line Pcl	Seaspan

Thank you!

Drewry was founded in 1970 as a provider of independent information and advice to the global maritime industry. Since then we have worked with over 4,000 clients in more than 100 countries.

We are privately owned with research and advisory teams in London, Delhi, Singapore and Shanghai.

London

Drewry
15-17 Christopher Street
London EC2A 2BS, United Kingdom
T: +44 (0)20 7538 0191
E: info@drewry.co.uk

Delhi

Drewry
209 Vipul Square, Sushant Lok-1
Gurgaon 122002, India
Telephone: +91 124 40476 31/32
E: india@drewry.co.uk

Singapore

Drewry
15 Hoe Chiang Road,
#13-02 Tower Fifteen
Singapore 089316
T: +65 6220 9890
E: singapore@drewry.co.uk

Shanghai

Drewry
555, 5th floor Standard Chartered Tower,
201 Shi Ji Avenue,
Pudong District,
Shanghai, China 200120
T: +86 (0)21 6182 6759

