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March 27th 2014

Agenda

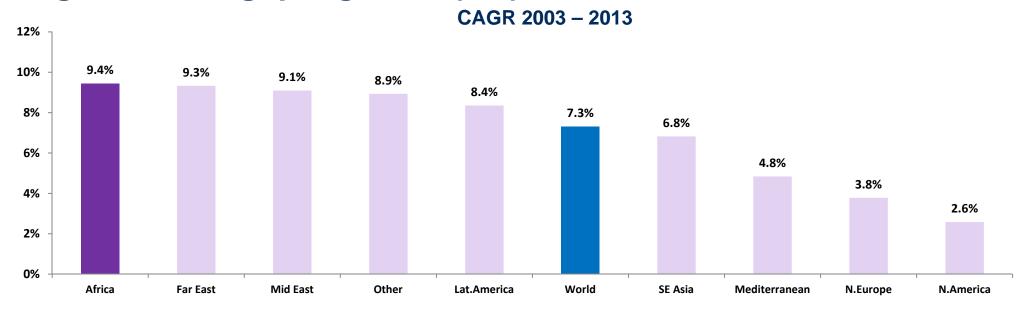


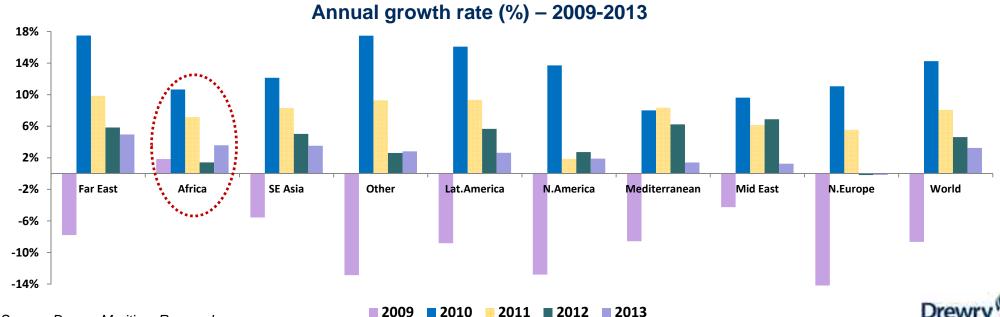
- **1** Global throughput dynamics
- 2 Containership developments implications for ports
- 3 The African market
- 4 Major port developments in Africa
- **5** Opportunities, challenges and conclusions

Subregional split necessary but artificial, as it needs to reflect very different realities



Regional throughput growth (teu)



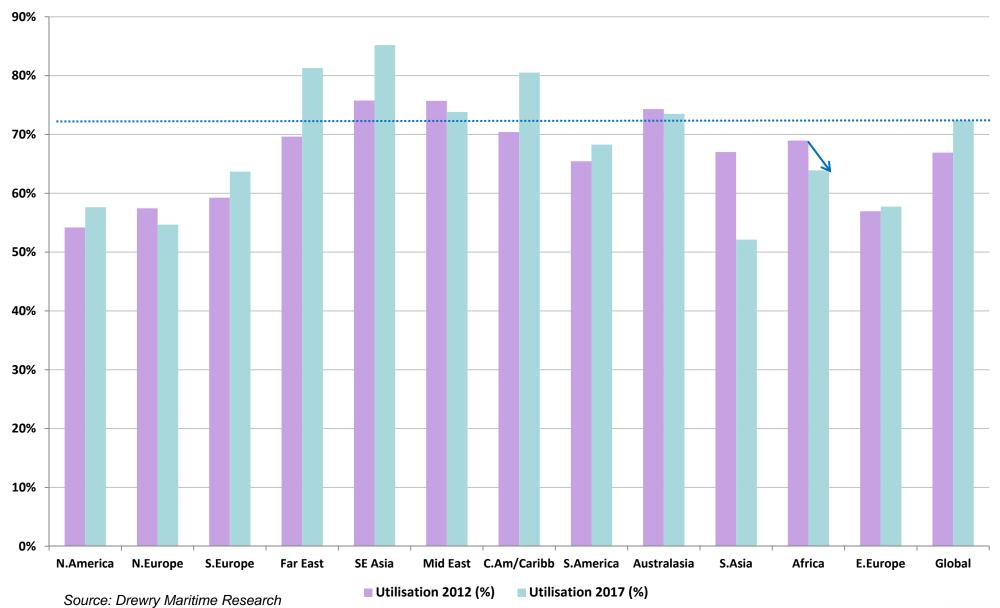


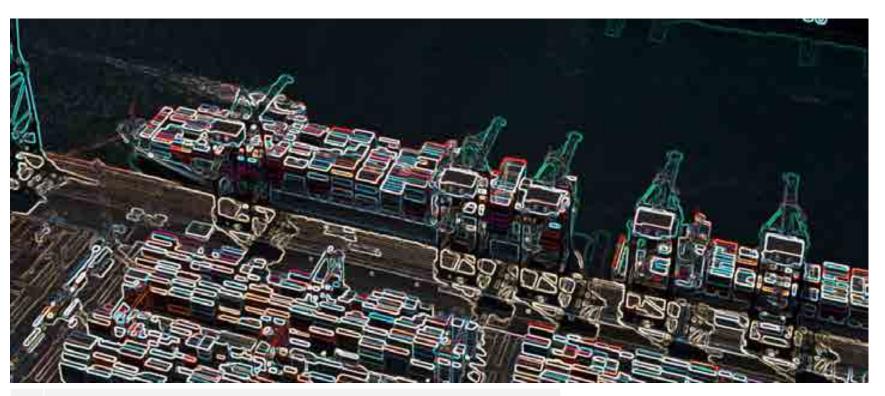
Source: Drewry Maritime Research

Drewry %
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Current and forecasted regional capacity utilisation

(2012 & 2017, in %)

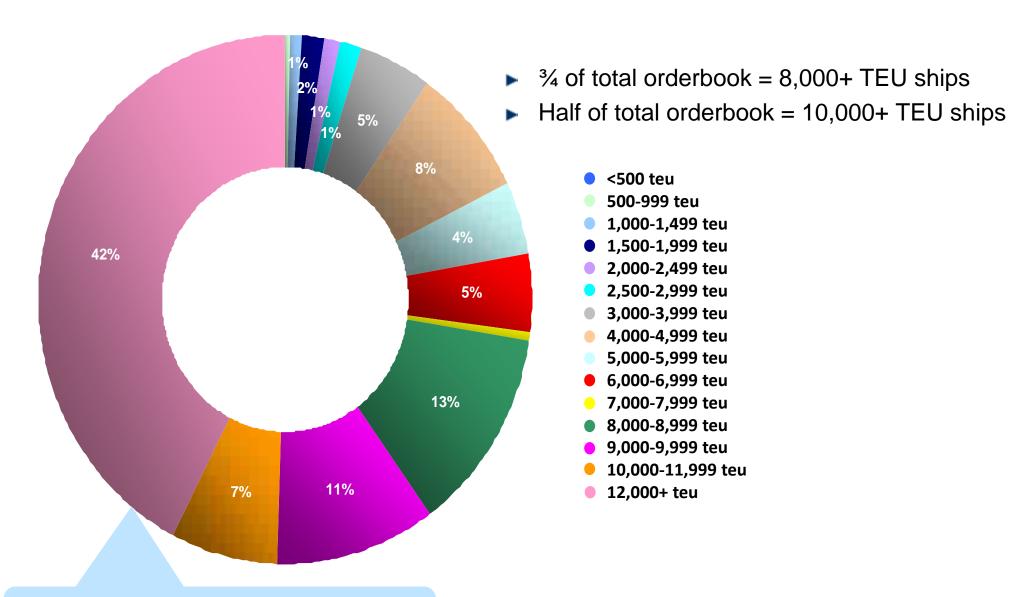




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Containership orderbook



Before long, all Asia-North Europe strings will be deploying 12,000 teu+ ships



Vessel cascading

Largest deployed vessels, Sept 2013:

Asia-N Europe: Maersk Mc-Kinney Moller (18,270 teu)

Asia-Med: MSC Bari (14,000 teu)
Asia-USWC: MSC Altair (13,100 teu)
Europe-ECSA: MSC Agadir (8,762 teu)
Asia-WCSA: MSC Candice (9,178 teu)

Asia-Mid-East: CSCL Neptune (14,074 teu)

Asia-ECSA (via S.Afr.): Cap San Augustin (9,814 teu) (*)

South Africa - Europe: MSC Susanna (9,178 teu)
West Africa - Asia: Maere Cadiz (4,496 teu) (*)

Largest vessels deployed across all global trade lanes (Sep 2013)—
there will eventually be a tipping point and scale economies will diminish

(*) purpose-built wide-beam design



Bigger Asia-North Europe ships →
More cascading to other routes →
More alliances on other routes (e.g. G6
Asia-USEC, P3 east-west routes) →
Port/terminal choice shake ups



Bigger ships and the pressure on ports infrastructure



Source : Datamar/Porto de Itajai



MSC Loretta, at 304m LOA and 40m beam 6750 teu

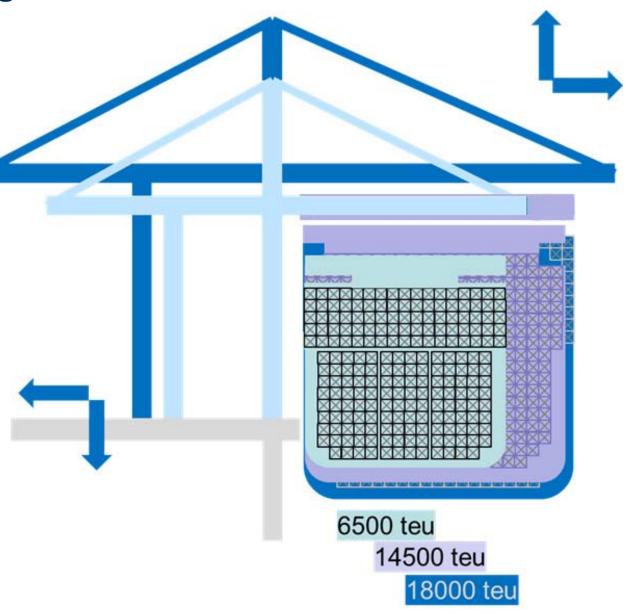


Source APMT Buenos Aires



The challenge of ship size growth

- Mega vessels = mega cranes
- Berth length and depth
- Air draft
- Outreach
- Intermodal capacity
- Crane and berth productivity





Berth productivity issues

Berth productivity is a combination of crane speed and crane intensity

Ship turnaround time is driven by:

Individual crane cycle speeds





Crane intensity across the ship



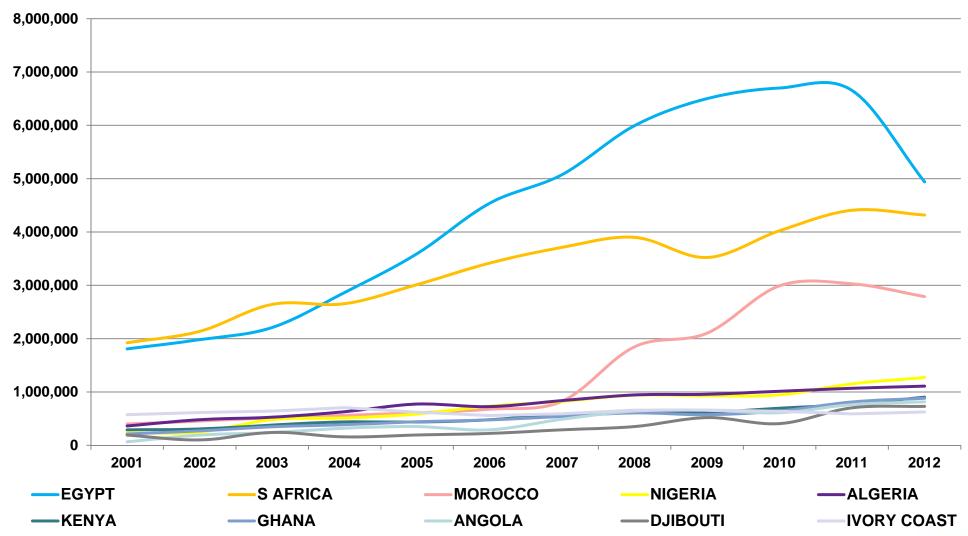


- The African market



African – container volumes (TEU)

Container volumes – countries with annual throughput >0.5m TEU



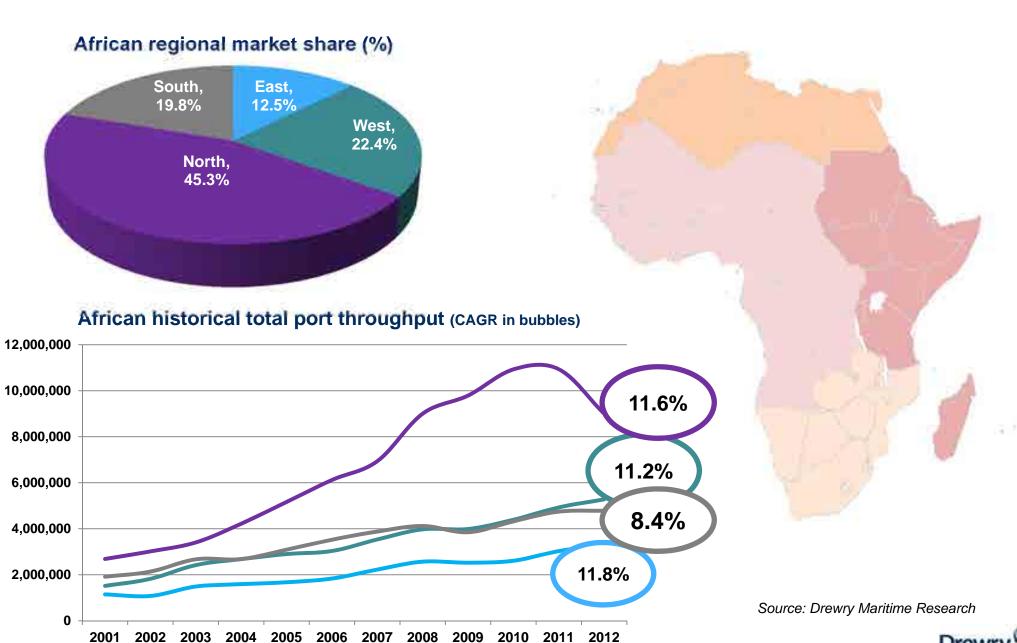
Source: Drewry Maritime Research



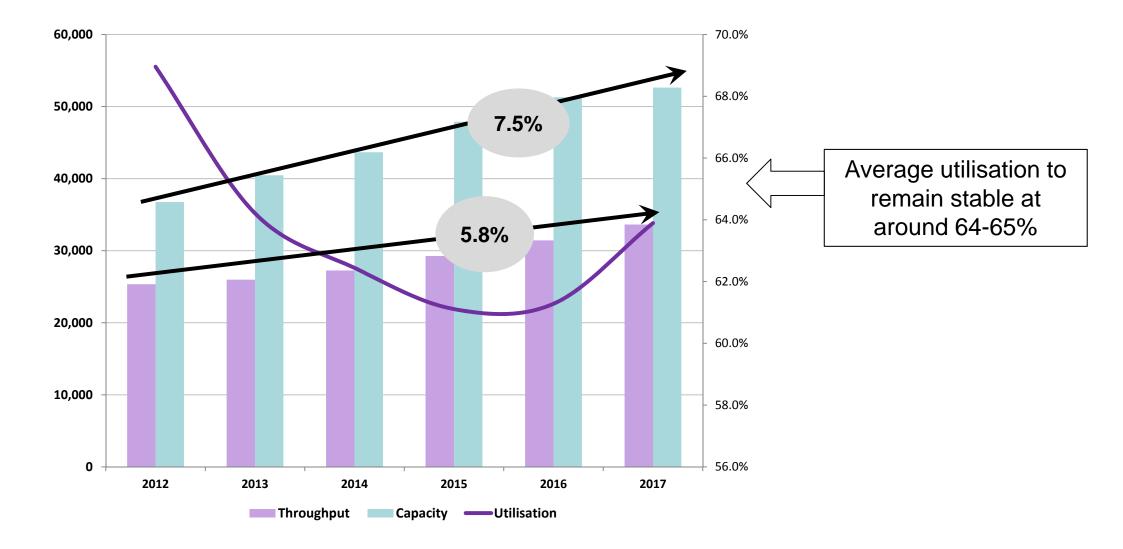
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African – regional split (local and Transhipment)

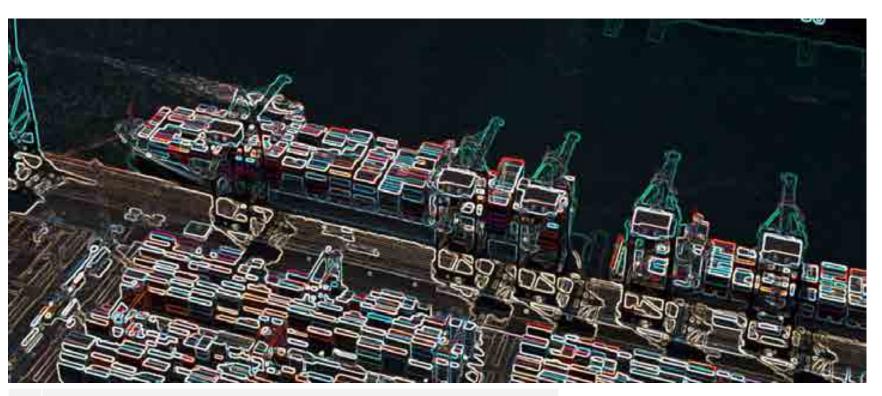
East — West — North — South



Africa ports – Demand and capacity (1000 TEU) 2012-2017



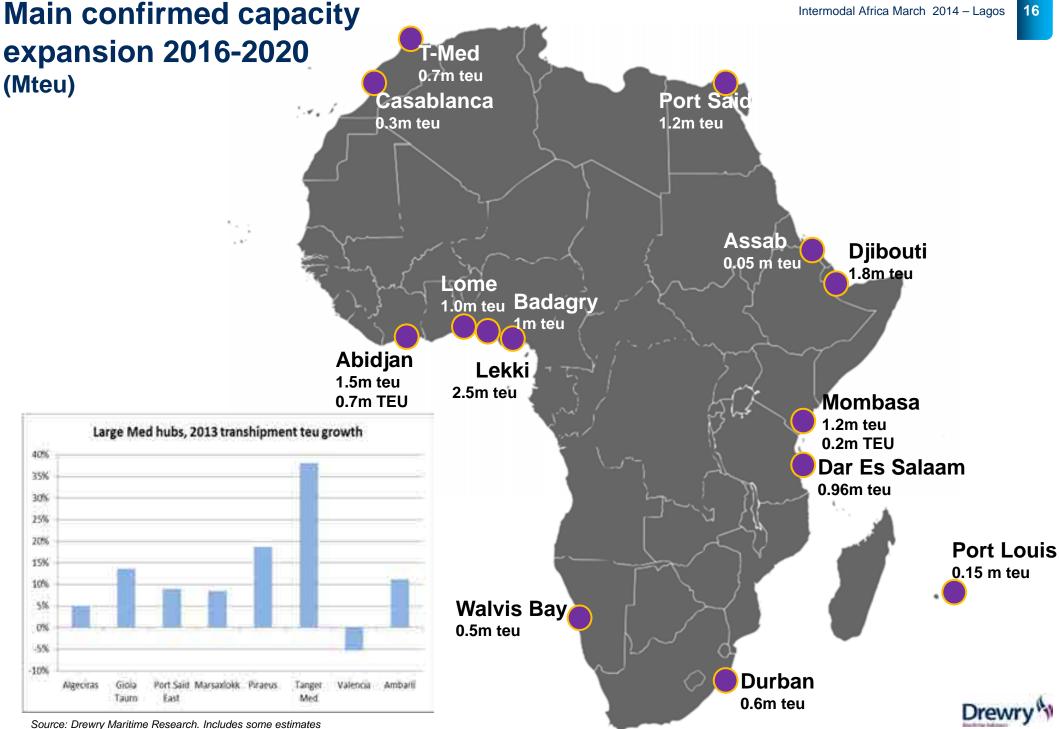




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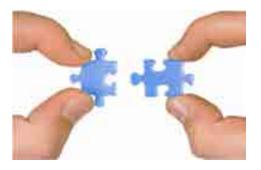
Opportunities AND Challenges





Conclusions

- New maritime routes and service patterns evolution and developments will depend of shipping lines maths (vessel sizes, network costs, alliances) and the availability of suitable/corresponding port infrastructure
- Impact of MED transhipment market growth
- Impact of Panama Canal expansion
- Need to look at the full supply chain, landside access to ports including socio-urban impact
- Role of bulk ports as catalyst for port complexes projects hosting medium-size container terminals with good water-depth



Thank You!



Our company

Drewry is an internationally based research and consultancy firm providing specialist services for the maritime industry

- Since being established in 1970 Drewry has built an expertise and knowledge that is unique within the maritime industry. With offices in London, Singapore, India and Shanghai we offer a global perspective for clients.
- We have worked with over 4,000 clients in more than 100 countries.
- Our organisational structure means our expertise is always at the forefront of the maritime industry. Each of our core businesses is constantly monitoring and analysing market dynamics, providing key information for our 'Drewry Knowledge Hub'. With cross sharing of analysis throughout the business, our teams have the platform to launch a project that is underpinned by extensive research.













Why Drewry Shipping Consultants?

Drewry was established in 1970 and has built an unrivalled knowledge base of the shipping industry

We are a **leading global maritime research**, **publications and consultancy firm** with a **strong reputation** among shipowners, financial organisations and other maritime industry stakeholders



We **monitor** and **research** continuously global shipping markets, publishing **authoritative analysis** on a wide range of industry issues including **demand** and **capacity development** and dynamics of **freight rates**



Our consultancy team contains **senior executives** who have **wealth of handsown** personal **experience** of all aspects of shipping its operations and finance



We have performed a variety of assignments for medium and large financial institutions advising buy or sale side, performing market due diligence and business plan validation tasks





Sector based experience

Our team combines the necessary experience, knowledge and practical understanding of maritime industry, its operations and financing

 Over the years, Drewry has become a trusted adviser to CEOs and other senior management of fleets, service and logistics companies and port authorities across the world

Expertise	Commercial	Supply Chain	Benchmar- king	Shipbuil- ding and repair	Due diligence	Market analysis
Market						
Oil tanker market	\checkmark	✓	✓	✓	✓	✓
Dry bulk	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Gas (LPG/LNG)	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Chemical	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Offshore	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Container	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Cruise/passenger/RoRo	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Ports and terminals	\checkmark	\checkmark	\checkmark		\checkmark	\checkmark



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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



Logistics providers



Mining companies

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

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

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

