

Port Authorities' perspective on industry developments and the impact on their most strategic port asset – property©

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Challenges facing port authorities

- Functional obsolescence: depth, bridge clearance and terminal capacity
- Deeper reach into the hinterlands: to better service their client's larger ships
- Capital: for ageing infrastructure and heightened intermodality
- Logistics: Changing dynamics in trade and logistics
- Asset rationalisation: Increasing competition, need to rationalise port assets regionally
- Economic obsolescence: land values



Recovering into a 'New Paradigm'

THE INDUSTRY & WHERE IT'S GOING



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Factors affecting ports, their development and role

- Shipping and vessel developments
- Ports, logistics, supply chain compression & intermodality
- Regionalisation and port's filling leadership vacuum
- World infrastructure needs



Changes impacting needs of ports

Source: Drewry Shipping Consultants Ltd

	<u>1999</u>	<u>2009</u>
World port teu throughput	211m	476m (525m '08)
Container share of general cargo market	52%	67%
Largest container ship	7,060 teu	14,770 teu

Impact:

- ***More infrastructure to increase capacity, velocity and throughput to service larger ships - on the same footprint***
- ***Increased intermodal capability through the supply chain and growth nodes***
- ***Need to address ecological and congestion issues resulting from port usage in their respective hinterlands***



Changing the dynamics of the supply chain

SHIPPING AND VESSEL DEVELOPMENT – IMPACT ON PORTS

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Impact of 2009 – rationalising the world fleet

Cause

- Increased scrapping smaller vessels
- Slow steaming, here to stay
- Large order-book remains, mostly ships of 10,000 teu+ size

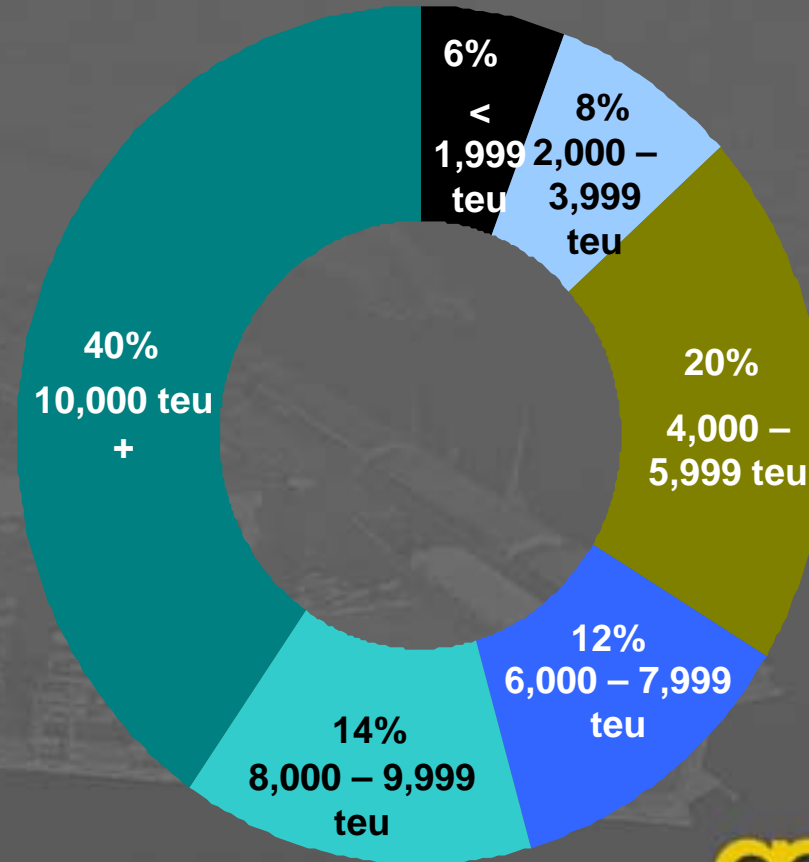
Effect

- growth of the average size of the fleet and more port side capacity
- more intermediary warehousing through the supply chain
- deeper hinterland capability requiring more logistics dedicated property assets



Container ship order book

- Total order book by teu size range (% of teu capacity)
- 54% are 'Big Ships'



Source: Drewry Shipping Consultants Ltd



Big ship economics

- Work as part of a global network - need to reach deep into the hinterland to be financially viable
- Inflexible - could be serious liability in a downturn; the bigger the ship the larger the risk.
- Increased time in port can quickly outweigh economies of scale; limited in number of port of calls.
- Need deeper water, bigger cranes, longer berths, bigger container yards, in short – more port infrastructure and land in the port and throughout the logistics chain

All require ports and supply chains designed to handle their capacity, requiring massive capital.



Port property – port's new strategic asset

- 8,000 TEU ship requires 40 hectares to keep container flow inbound smooth; most large ports are land constrained
- Throughput per acre is key to making customers money and satisfied eg, in US about 4,000 – 5,000 TEU/acre yet in Europe and Asia 10,000 TEU/acre and higher is not unusual



Shifting to the land side of the 'sea-land' equation

PORTS, LOGISTICS, SUPPLY CHAIN COMPRESSION & INTERMODALITY



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The supply chain - heavily property reliant



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Management

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Speed to market

- Over water cheapest transport, now a commodity for the most part
- Over land is where to find cost savings, ie faster, better, cheaper
- Result: increasing throughput and velocity at ports by better processing cargo throughout supply chain with inland ports, intermodal centres and specialist logistics buildings
- Its all about reach, time, reliability and price



Ports – now nodes in an ever expanding and integrating global supply chain

- Within present supply chain a weak link - ports' inability to process more throughput faster
- Logistics very efficient industry, excellent leadership; transport is fragmented, no clear leader - vacuum needs to be filled, should port authorities step in?
- 'Just in time' now 'integrated time', requiring more specialised facilities such as 'fast buildings'
- Property at, near and related to ports is key to addressing these issues



So, which link will ports become, this?



Or this?



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Extending the port's sphere of influence

PORT EXPANSION & REGIONALISATION



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Regionalisation

- Ports integrate into **new freight paradigm** ie, integrated time versus just in time (major impact on land usage).
- **Corridors and inland terminals** – cornerstones in port regionalisation and ‘Big Ship’ strategy.
- **Inland logistics facilities** critical in maintaining major seaport efficiency and competitive advantages (eg velocity/productivity)
- Portside constraints (political, ecological, economic) - will force **hinterland access/expansion**
- All requires **substantial use and need for real estate facilities** AND an **opportunity to integrate supply chain and gain regional economies of scale.**



To address new realities

PORTS' CHANGING ROLE



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No longer business as usual

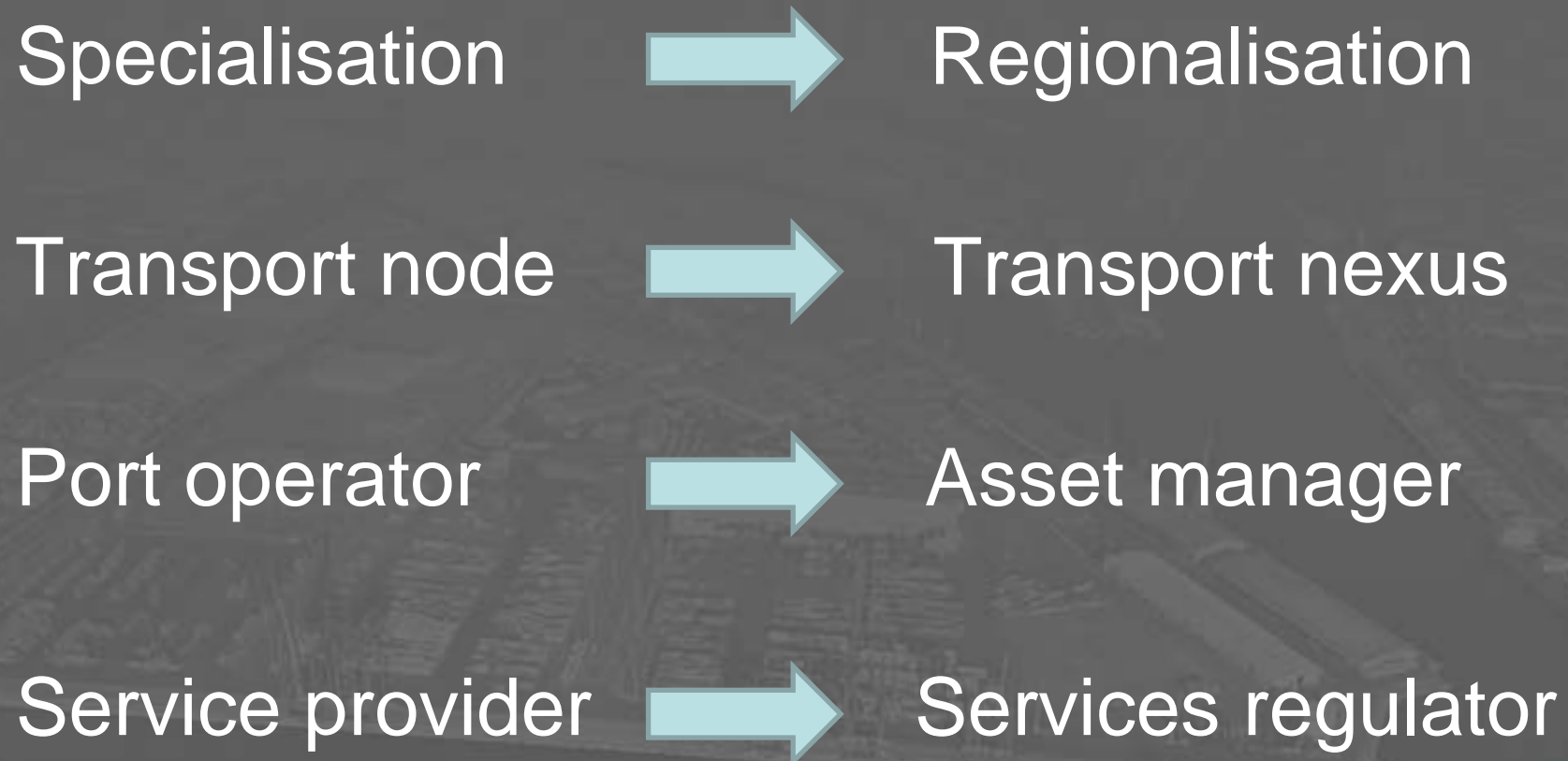


Due to:

- Escalating property costs
- Land shortages
- Threatening economic obsolescence
- Security and ecological constraints
- Profitability & productivity demand
- Capital requirements



Port Authorities' evolution



Altering the basic function port authorities

PORT PROPERTY & ASSET MANAGEMENT



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Port Property

Port Authorities (PA's) control significant strategically located waterfront **property portfolio** which typically:

- Is largest asset on balance sheet
- Financially underperforms
- May operationally be underutilised
- Is viewed as an administrative function - not a strategic asset

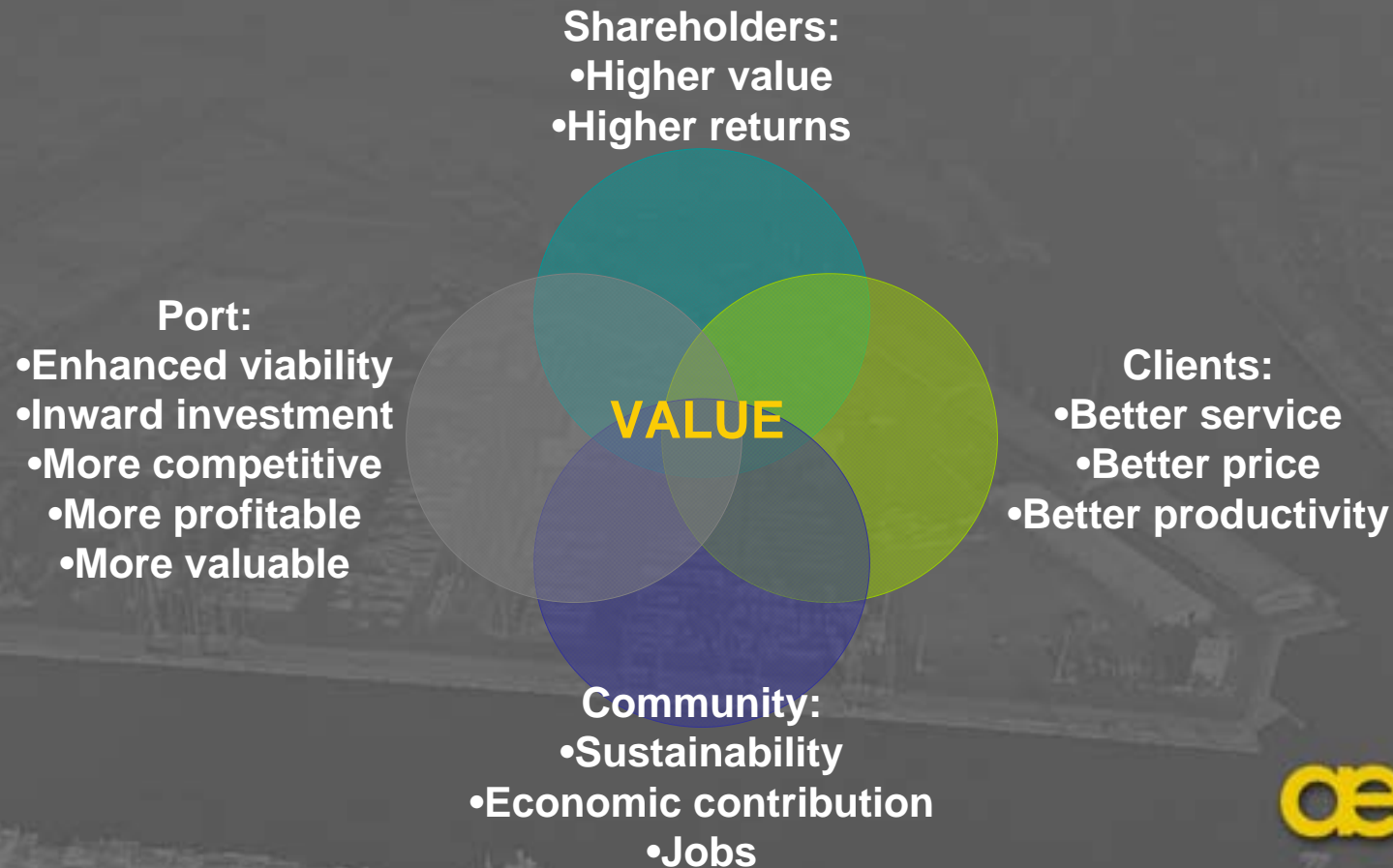


PA's port property asset management challenges

- Overarch property objectives with port's overall business strategy and mission
- Asset management Procedures eg, EVA
- Financial engineering to release equity tied up in land assets to access available, lower cost, private capital and financial markets



Convergence of quasi public and private sector roles: managing for value



A decidedly different exercise

VALUATION/APPRAISAL OF PORT PROPERTY



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Underestimating the value of the land

- PA's underestimate value of landholdings by structuring leases based on throughput, outdated 'rules of thumb' and uncorroborated benchmarks for property values and yield rates.
- PA's lease properties as **incentives** rather than sound business practice – short sighted.
- Port properties need to be valued on income approach and enterprise value, rather than benchmark sales comparisons.



Recent examples of port property value disconnect

Keystone Coal v. Port of Jacksonville

- Where: St Johns River, Jacksonville
- Size: 70 acres
- Acquisition: 2006 – US\$10m
- Reported value/award: \$64.5m
- Price per acre: \$920k

Port of New York & New Jersey

- Where: Marine Ocean Terminal at Bayonne
- Size: 135 acres
- Reported Sale: \$235m
- Price per acre: \$1.740m



They need to reflect 'reality'

STRUCTURING LEASES FOR PORT PROPERTIES



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What should be in a lease?

Costs

- Cost of capital, risk?
- Inflation?
- Capital sinking fund for renovations, infrastructure recapture?
- Repair & maintenance?
- Operating, insurance costs eg, common area maintenance, security, electricity?

Revenue

- Return on investment?
- Return on equity?
- Landlord profit?
- Demand/supply balance?
- Throughput charges?

Without consideration of the above are you really making any money?



Infrastructure's massive demand for capital

GLOBAL INFRASTRUCTURE REQUIREMENTS & PORTS



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Infrastructure trends and opportunities

- OECD estimates US\$70 trillion required for infrastructure development and improvement – 2030
- Average size of infra fund now US\$3.3b from US\$159m in '03; 'Dry Powder' for 2012 – US\$100b
- Current financial crisis has resulted in less debt opening door for more equity participation
- Although assets are priced at more realistic levels there are also lower return (IRR) expectations as well in the 15%-18% from 18%-20% in the 2006-2008 period

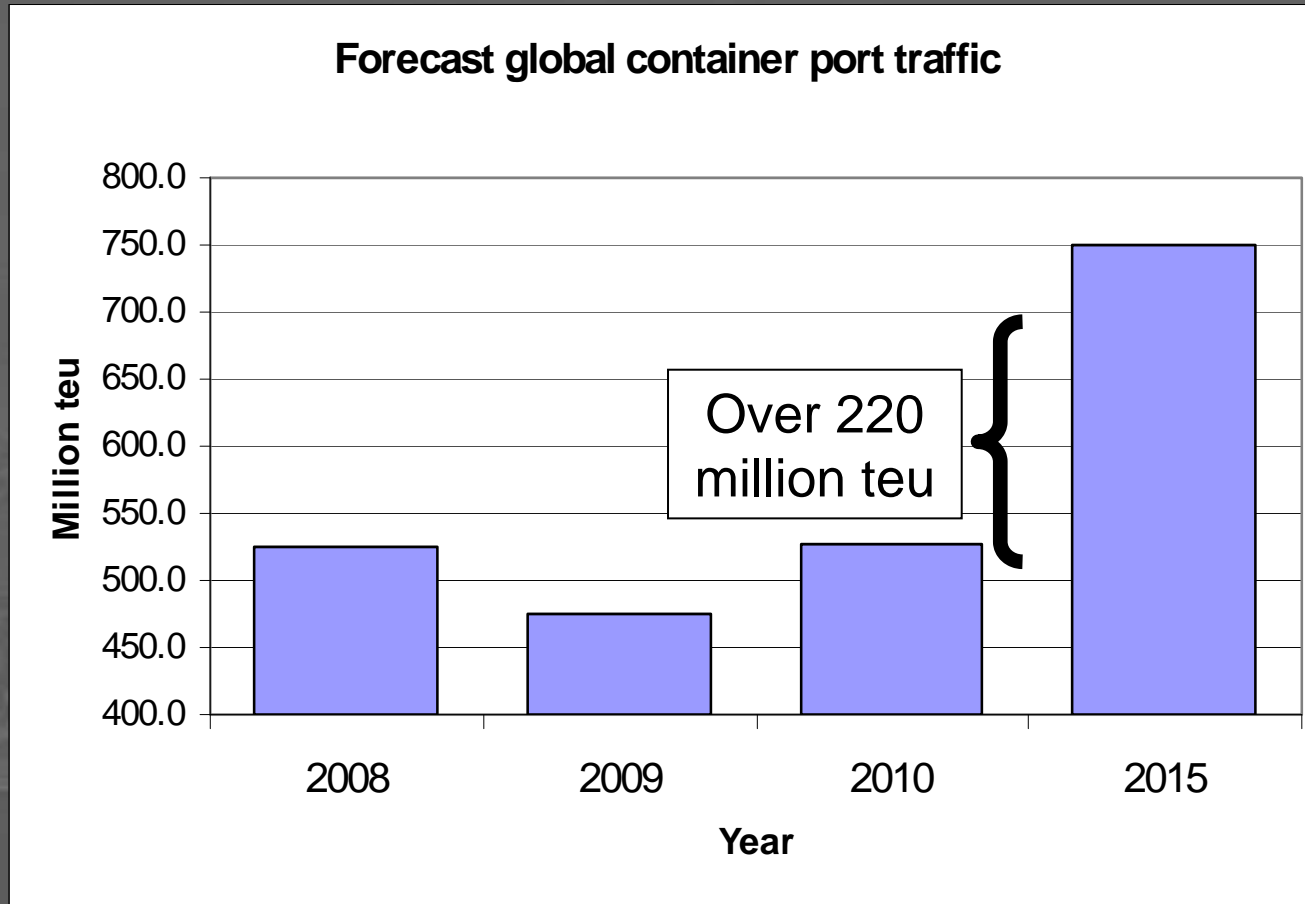


Issues

- Impact of financial crisis on ports sector – more realistic financial expectations from investors
- Port related infrastructure investments
 - Back to original attraction: hedge against inflation, long term growth prospects, high barriers to entry
 - Very resilient industry



Forecast global demand

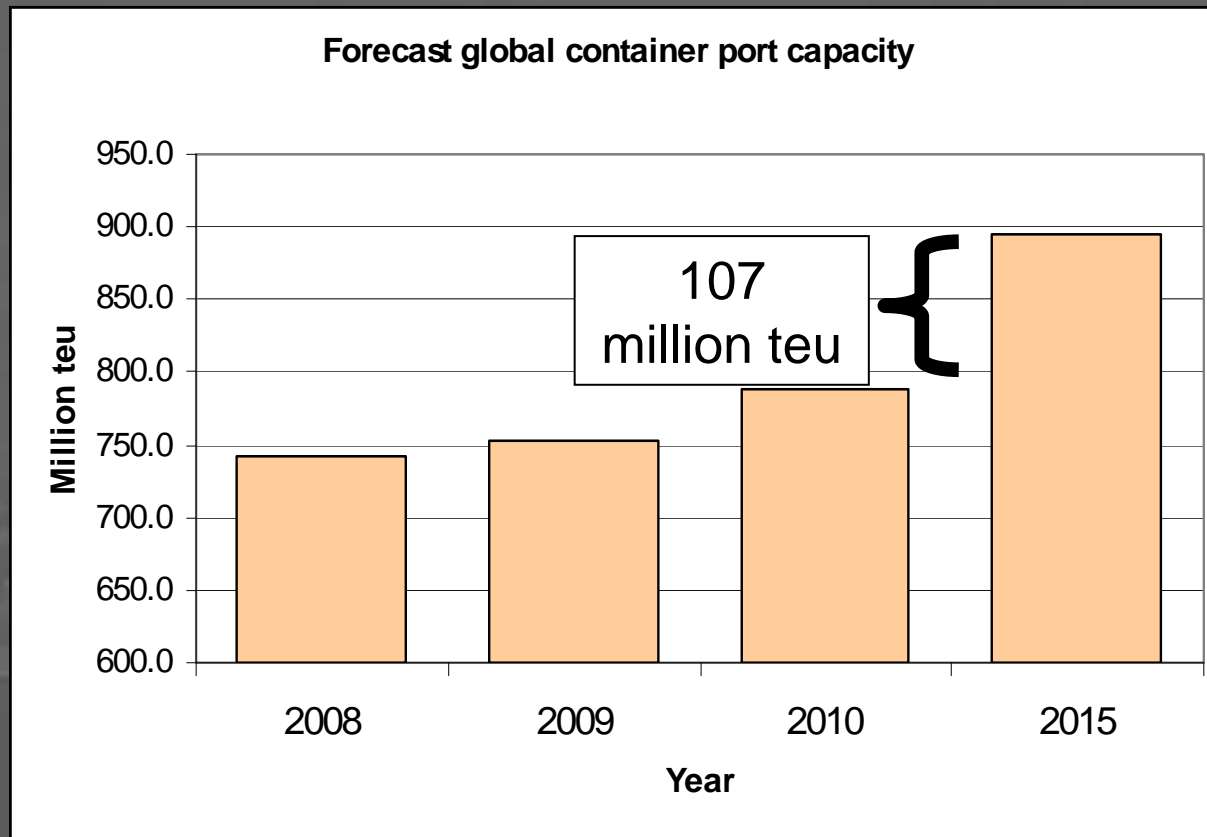


Source: Drewry Shipping Consultants Ltd



But, forecasted global terminal capacity doesn't keep up

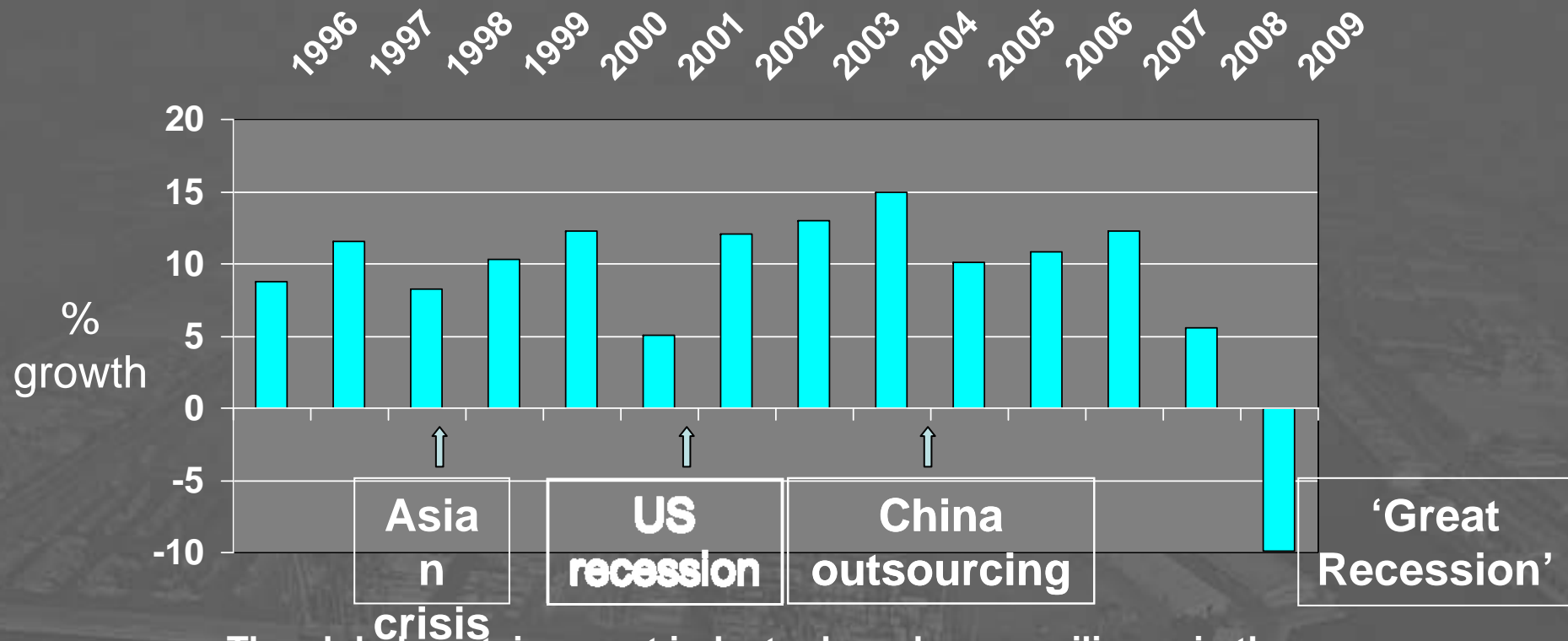
Capacity becomes an issue again



Source: Drewry Shipping Consultants Ltd



Deepest contraction since the advent of commercial containerisation in 1956...



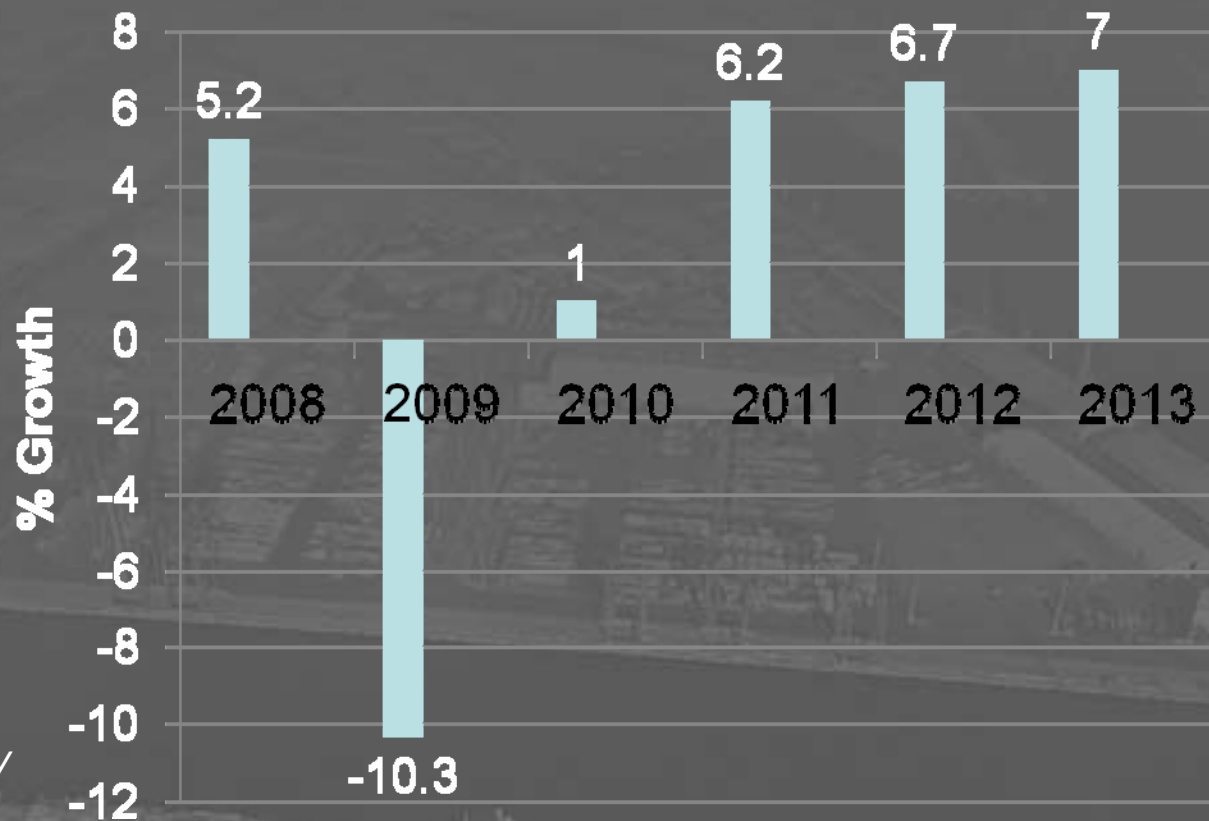
The global container port industry has shown resilience in the past with 1982 being the worst year before 2009; yet it grew at 4.2% then. 2009 was different though; but its turnaround indicates a resilient sector.



Source: Drewry Shipping Consultants Ltd

But there is a 'silver lining' – the port industry's resiliency

By 2012 TEU traffic volumes will exceed 2008.



Source: Drewry



Comparative yields for infrastructure investments

Asset segment	Risk	Avg cash yield (yrs 1-5)	Avg leveraged IRR	Capital appreciation potential
Toll roads	Low	4%-9%	8%-12%	Limited
Seaports	Medium	4%-7%	15%-18%	Yes
Merchant power stations	High	4%-12%	15%-25%	Yes

Source: JP Morgan



Opportunities for ports from infra investors

- Illiquidity resulting from the downturn opens door for private capital into the sector.
- Less availability of debt opens door for more direct equity investment
- Emerging markets with capacity constraints should be good hunting grounds.



Moving forward...

OPPORTUNITIES & CONCLUSIONS



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Opportunities

- Release of tied up capital in port property for expansion/modernisation
- Infrastructure investment funds will increasingly find a home in port related, property based assets
- Maximisation of port's value through land banks and new property based revenue streams focused on value added activities
- Integration of supply chain, extension of port life cycle, serving changing industry needs



Conclusions

- Port privatisations just a step, port authorities increasingly will be 'corporatised' to better access private capital with property increasingly serving as collateral
- Port authorities will look, act and operate decidedly differently in the future – very much as an **asset and transport manager**; effective management of **property as a strategic asset** will be key



*‘Navigating the World of Port Properties –
To Maximise the Value of Ports’*

Thank You



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