Identifying private sector business partners session – laying the groundwork with an industry overview©

AAPA maritime Economic Development Seminar – Portland Oregon
12 July 2011

Brief industry overview

- Shipping and vessel development's impact on ports
- Industry performance and forecasts
- Mergers & acquisitions privatisation
- What has the recession changed?
- Ten years back; ten years forward
- Infrastructure investment panorama

Changing the dynamics of the supply chain…

SHIPPING AND VESSEL DEVELOPMENT'S IMPACT ON PORTS

Changes impacting ports

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

Source: Drewry

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 logistics corridors***
- ***Need to address ecological and congestion issues resulting from port usage in their respective hinterlands***

Vessel size development – the big ships are still coming

Impact of 2009 – rationalising the world fleet

Cause

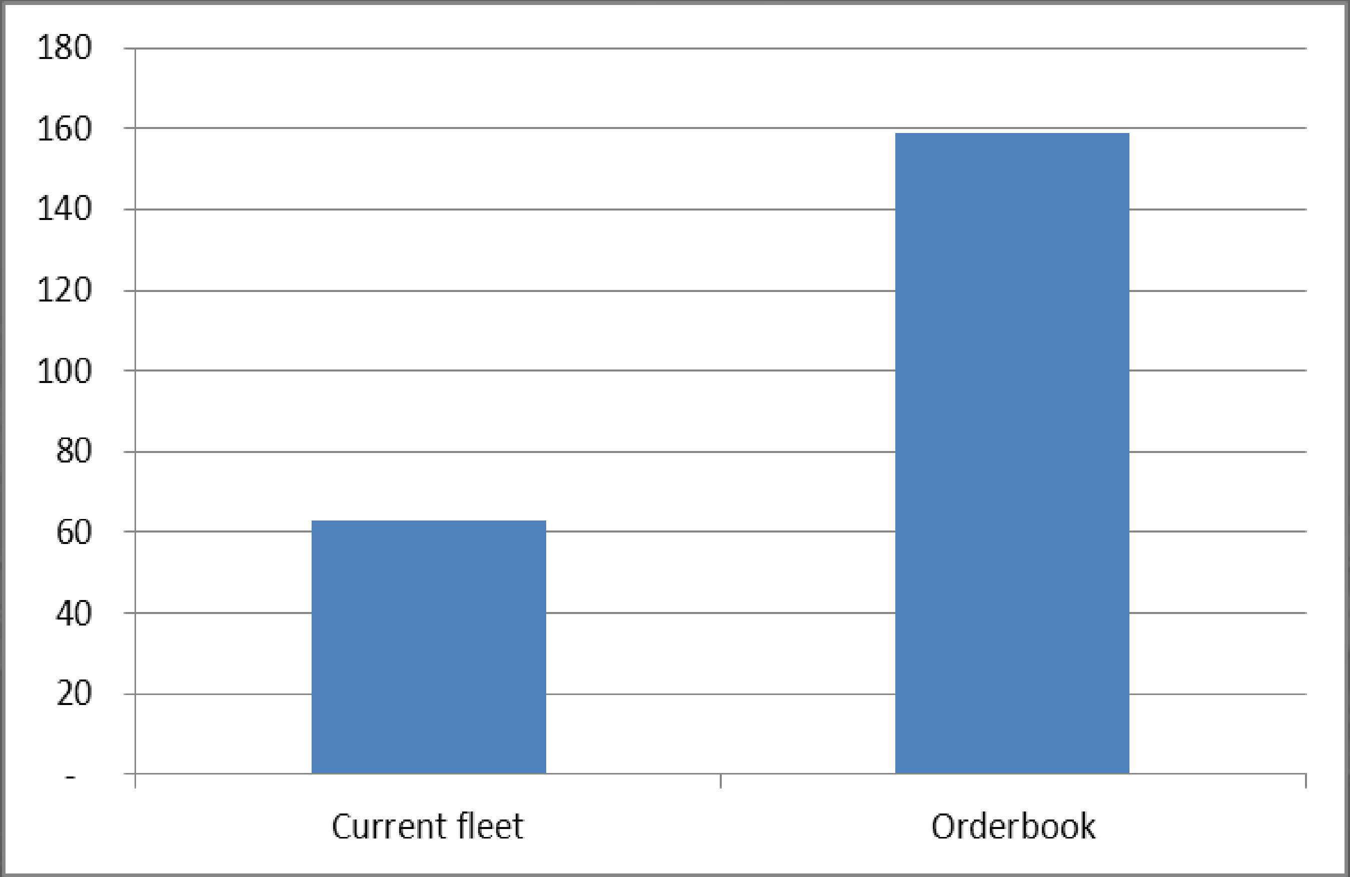
- Increased scrapping of smaller vessels
- Slow steaming, here to stay
- Large order-book remains, mostly ships of 10,000 teu+ size

Effect

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

Container ship orderbook

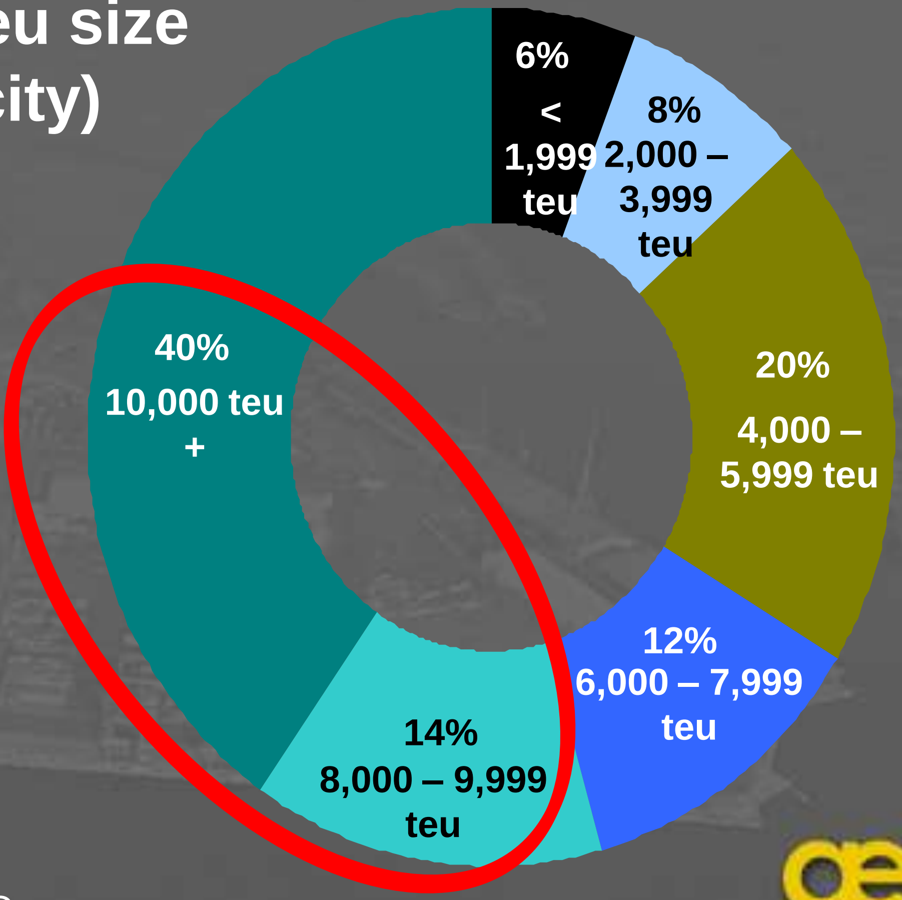
10,000 teu+ order book (number of ships)



Source: Drewry

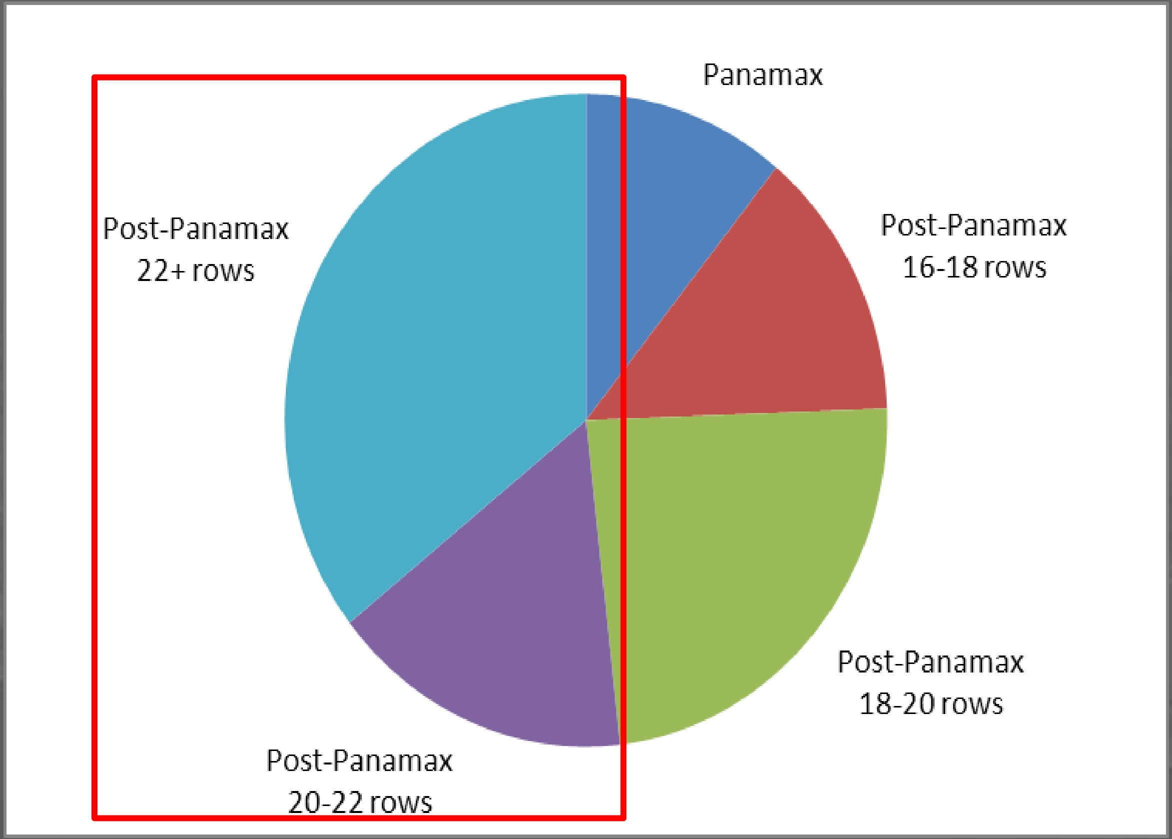
Container ship order book

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



Source: Drewry

Gantry crane order book



Source: Drewry

Around 300 cranes currently on order – approximately half are 20 rows outreach or more

Big ship economics

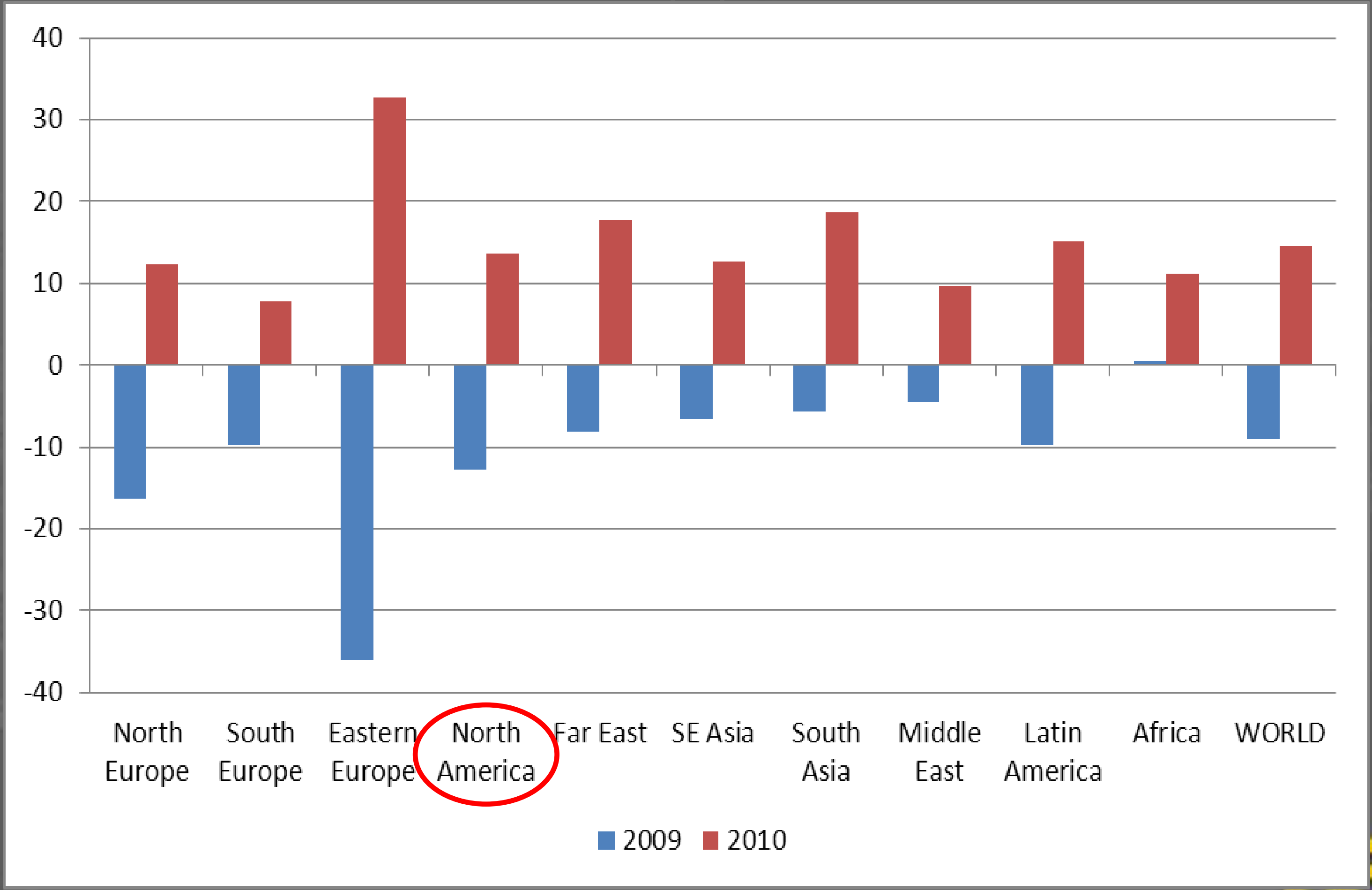
- Work as **part of a global network - need to reach deep into the hinterland to be financially viable**
- **Inflexible** - could be serious liability in a downturn; the bigger the ship the larger the risk
- Increased time in port can quickly outweigh economies of scale; **limited in number of port of 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

Major changes in some regions

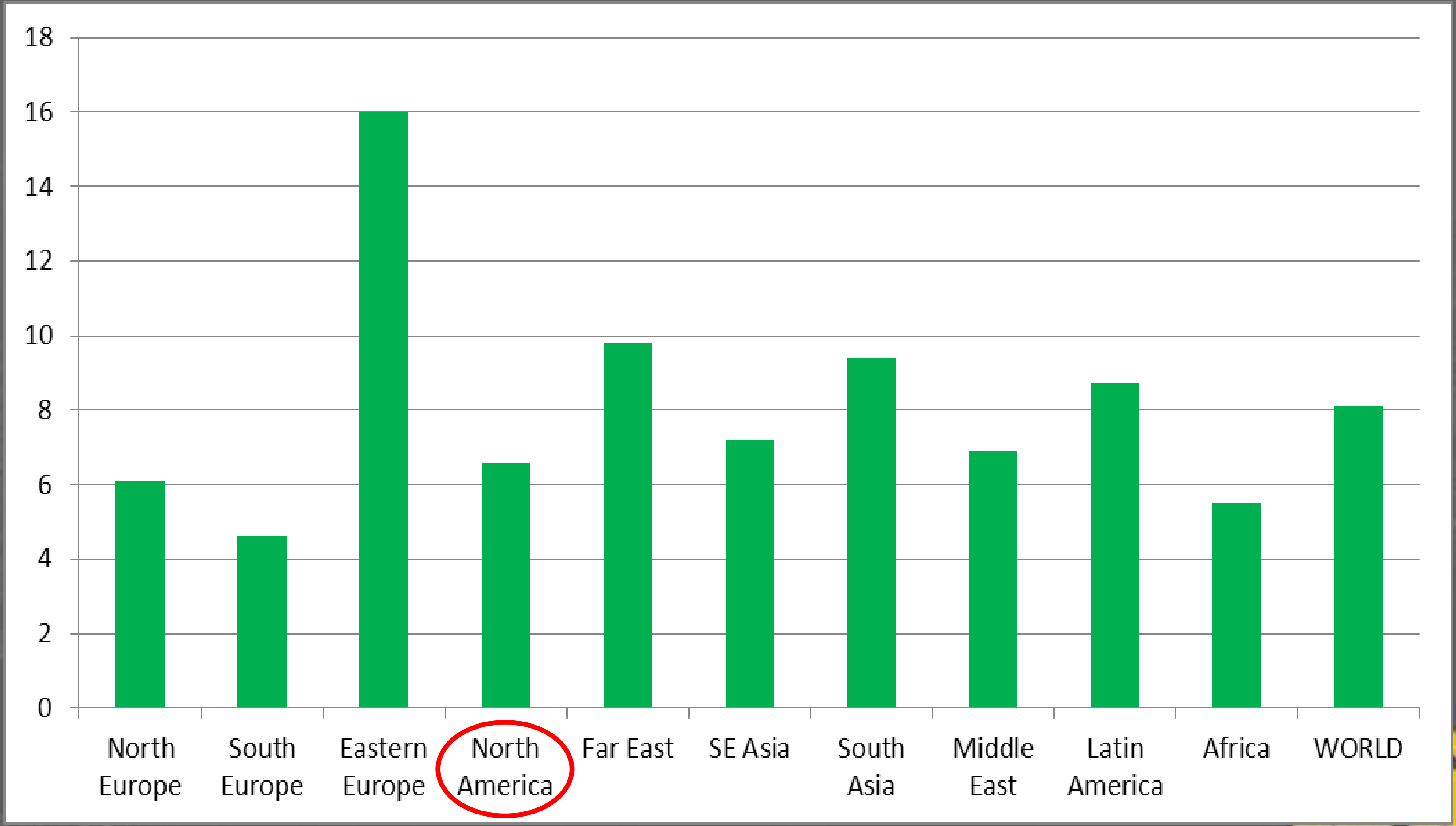
INDUSTRY PERFORMANCE & FORECASTS

Container port volume decline/growth by world region 2009 and 2010 (%)



Source: Drewry

Forecast container port volume growth by world region 2011 (%)



Source: Drewry

Future demand growth rates – Drewry/Aegir view

- 2011: +8% globally
- **2012-2016: +7-8% p.a. growth globally**
- Significant regional variations:
  - Fastest growing regions (> 5% p.a.): Far East, South East Asia, Indian Subcontinent, Middle East, Africa, Eastern Europe
  - **Regions growing less quickly (+/- 5% p.a.): North Europe and North America**

Competition to become more acute in N America

Liner shipping facing challenges (again)

- Vessel order book remains substantial
- Maersk raises stakes again with 18,000 teu vessel order
- Ship capacity plentiful, slow steaming here to stay
- Freight rates are under pressure
- Shortest business cycle the liner industry has ever seen?

2009	2010	2011
US$19 billion loss	US$17 billion profit	Break-even?

Source: Drewry

Reviving and far from exhausted…

MERGERS, ACQUISITIONS & PRIVATISATION

M&A/privatisation activity in the port sector reviving

- Dragados - JP Morgan/Noatum
- DPW Australia – Citi Infrastructure Investors buys 75%
- Port of Brisbane - GIP & partners win with A$2.1bn bid
- TCP Paranagua - Advent allegedly buys 50% for US$300m
- Forth Ports – UK£750m Arcus bid accepted
- Eilat, Israel – Privatisation process under way
- Piraeus and Thessaloniki port companies – Greek government set to sell stakes

Source: Drewry

M&A/privatisation activity in the port sector reviving

- APM Terminals – Yantian, Poti (Georgia), Santos (BTP), Dunkirk/Mobile share swap with CMA CGM
- ICTSI - Portland (Oregon), Rijeka, offer to acquire Portek
- 50% of NUTEP Novorossiysk sold for US$115m
- Adani Enterprises – Abbot Point coal terminal (Australia)
- Port of Gothenburg – Car and short sea RoRo terminal deals done, container terminal process under way
- Malta Freeport – Sale of minority stake by CMA CGM
- MSC terminals (TIL) – Potential sale of minority stake reported in press

Source: Drewry

Privatisation potential – not exhausted yet?

Terminal size band (teu throughput)	Total number of terminals	No. of terminals which are state owned *	State owned % of total terminals in size class
Under 100,000	594	307	52%
100-250k	256	62	24%
250-500k	160	34	21%
500k-1 million	126	23	18%
Over 1 million	112	20	18%
Global total	**1248**	**446**	**36%**

Source: Drewry

* Excludes terminals owned or managed by state owned global operators such as PSA and DP World but includes terminals where the government has majority ownership. 500k+ basic threshold for institutional investors.

Container terminal valuations

- The days of valuations of port businesses at more than 20x EBITDA are over – at least for the time being
- 8-12x EBITDA is the ballpark now (but no substitute for a full DCF analysis)

Moving towards a new paradigm…

WHAT HAS THE RECESSION CHANGED?

What has the recession changed?

- Industry’s view on long term growth: volumes may go down (temporarily) as well as up!
- Greater focus on emerging markets by many international operators
- Excessive focus on very short term forecasting
- Valuation of ports and terminals - downwards
- Availability and cost of borrowing more challenging
- Removal of short term (and mad!) investors from the ports market

What has the recession not changed?

- Pressure on port capacity (for many world regions)
- The profitability of ports and terminals
- The challenging economics of liner shipping
- The ongoing trend towards ever larger container ships

Few changes is some areas, major in others…

TEN YEARS BACK AND FORWARD

10 years back, 10 years forwards – small or no change

	2000	2010	2020
Transhipment share	25%	28%	28%?
Empties share	~20%	~20%	~20%
Typical EBITDA margins (terminals)	20-40%	20-40%	20-40%

10 years back, 10 years forwards – big changes

	2000	2010	2020
Largest container ship (teu)	7,060	14,770	20,000+?
Super post-Panamax gantries	20	~900	2,000+?
Market share top 4 terminal operators *	~25%	~48%	?

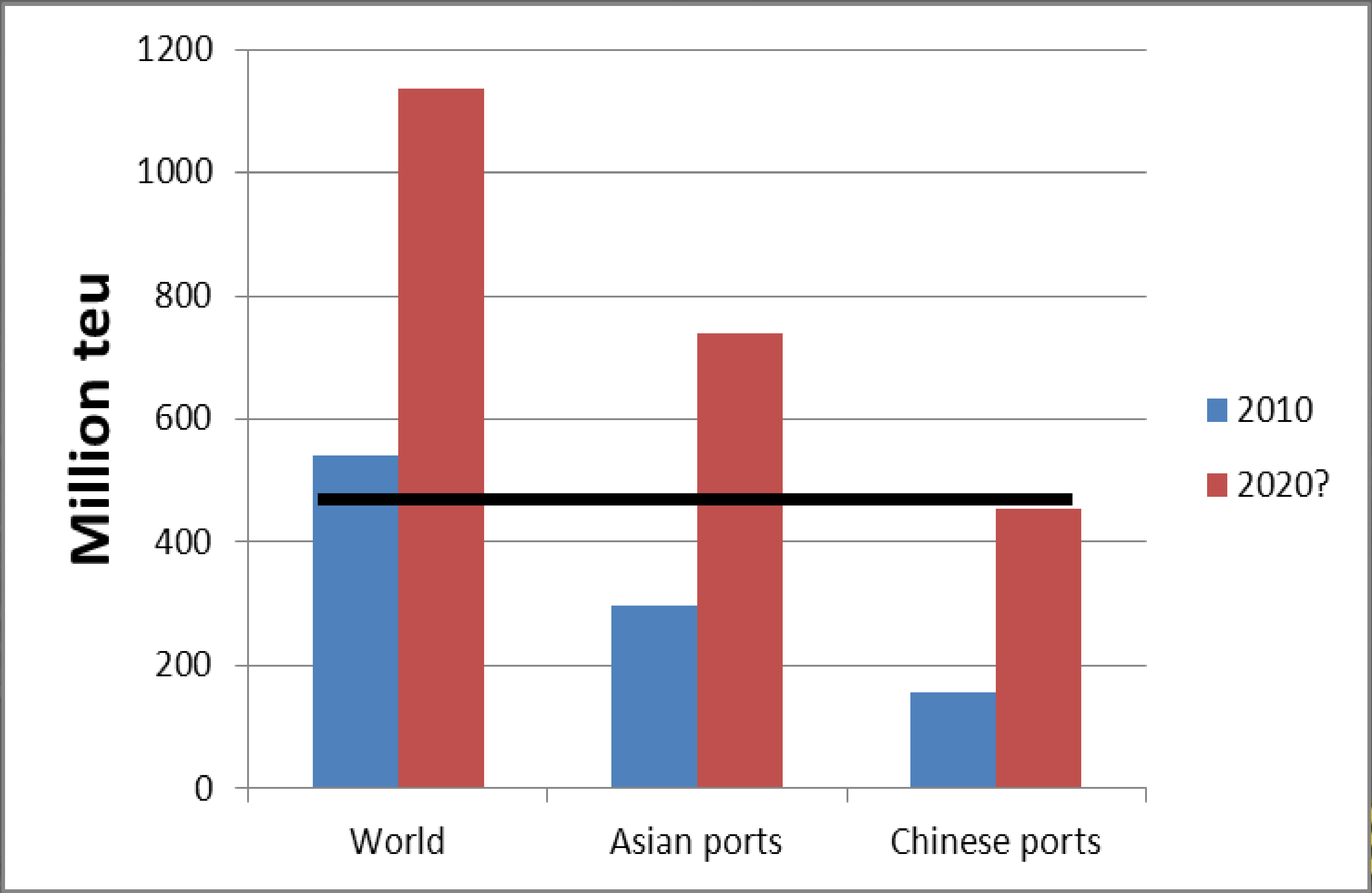
** total teu basis*

10 years back, 10 years forwards – big changes

	2000	2010	2020
Container share of general cargo mkt	48%	67%	72%
World port teu throughput	237m	542m	1.1bn?
Asian ports' share of world teu	47%	55%	65%+
Chinese ports' share of world teu	16%	29%	40%+

Source: Drewry

2020 vision…..?

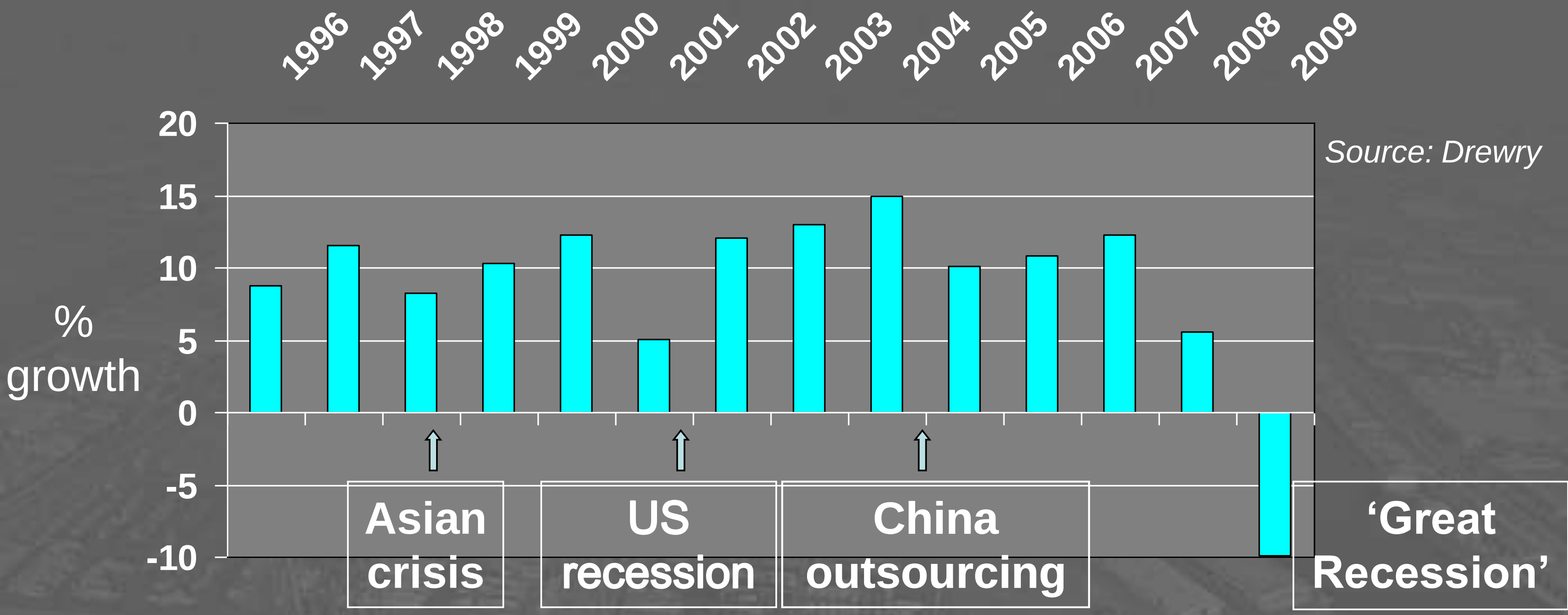


Source: Drewry

Need exponentially growing; capital increasingly private…

INFRASTRUCTURE INVESTMENT PANORAMA

Deepest contraction since the advent of commercial containerisation in 1956…



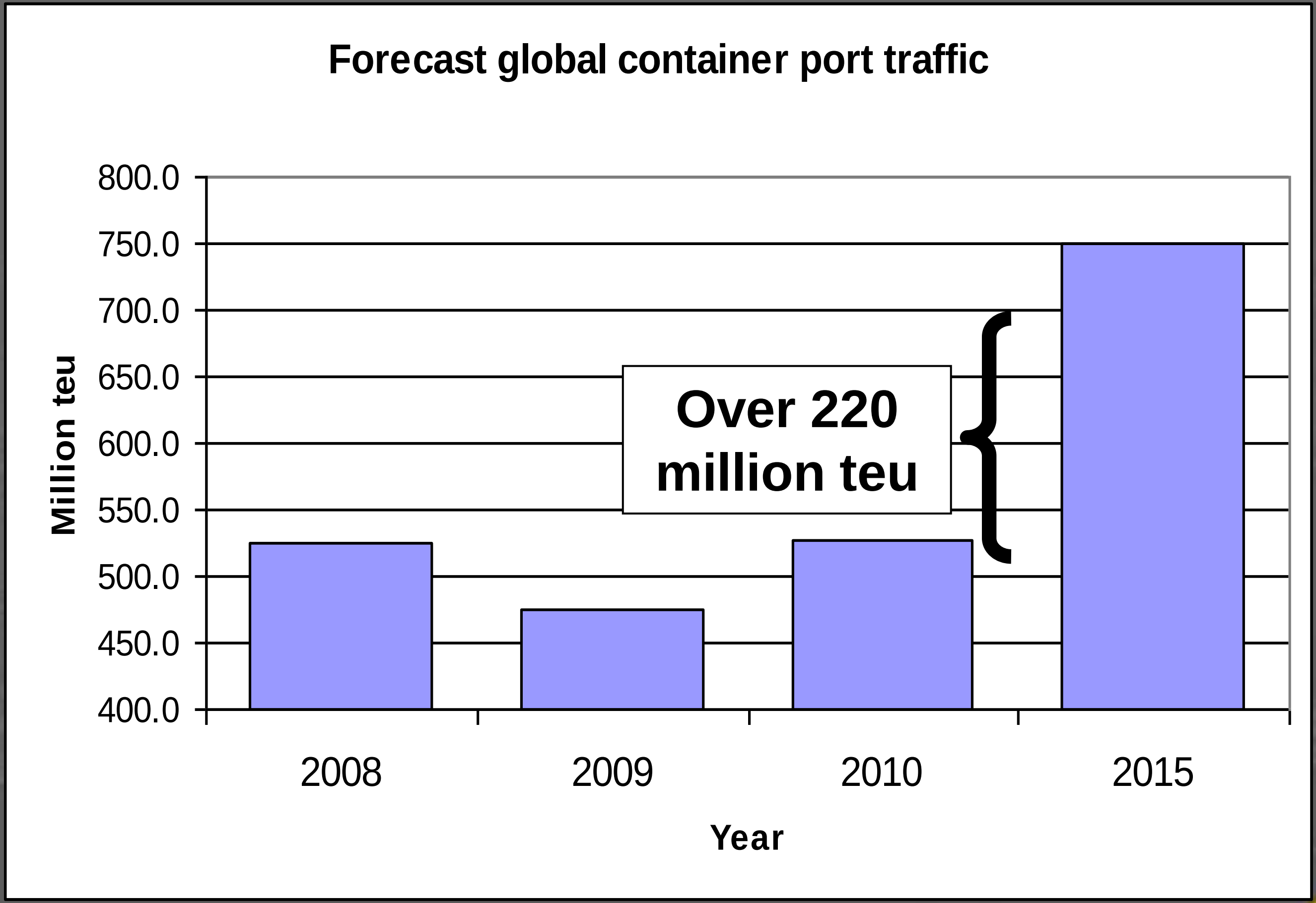
The global container port industry has shown resilience in the past with 1982 being the worst year before 2009; yet it grew at 4.2% then. 2009 was different though; but its turnaround indicates a resilient sector.

But the 'silver lining' is the port industry's resiliency

By 2012 TEU traffic volumes will exceed 2008.

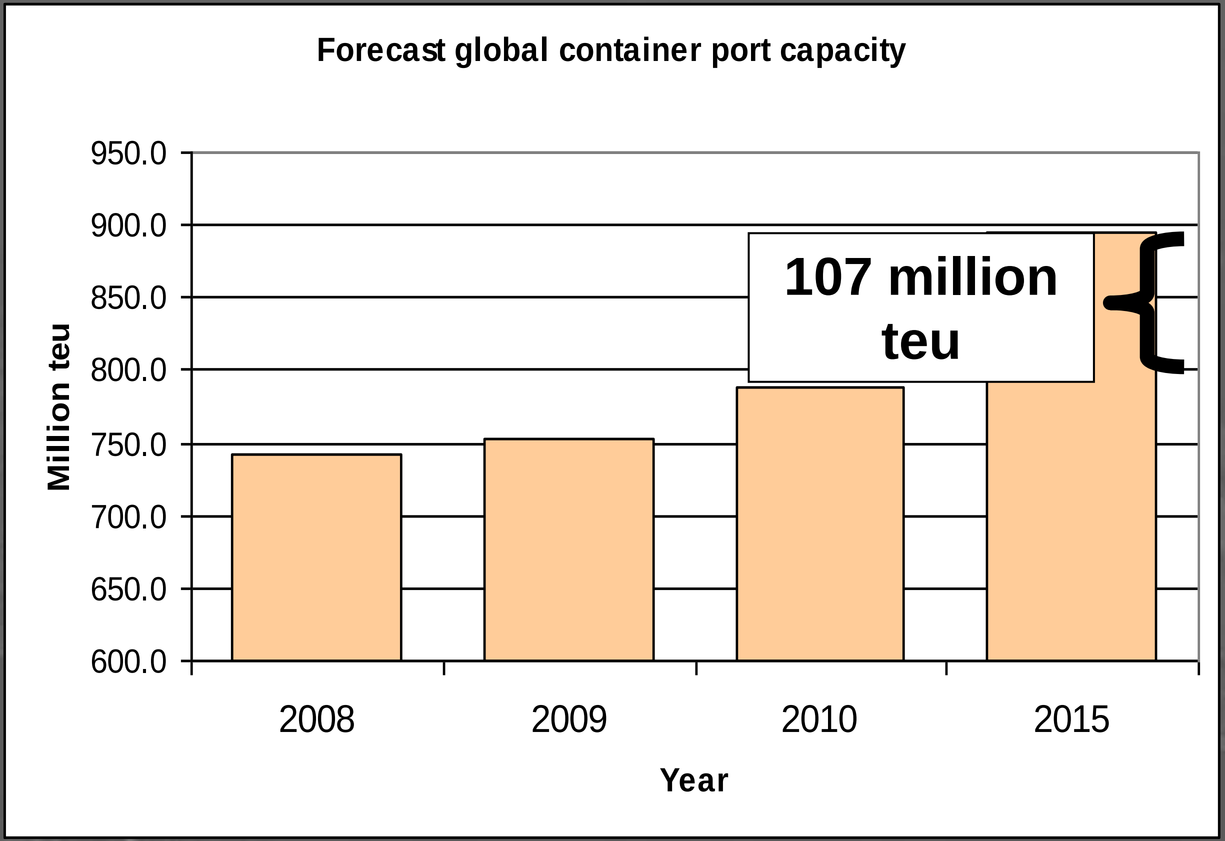
Source: Drewry

Forecast global demand



Source: Drewry

But, forecasted global terminal capacity doesn't keep up



Source: Drewry

Capacity becomes an issue again

Infrastructure trends and opportunities

- OECD estimates **US$70 trillion required by 2030** for infrastructure development and improvement
- American Society of Civil Engineers state US has US$2.2 trillion supply/demand infrastructure gap; *American Recovery & Reinstatement Act* (ARRA) covered less than 5% of this
- 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
- **Assets priced more realistically now**; lower return (IRR) expectations as well ie, 15%-18% from 18%-20% in the 2006-2008 period

Issues

- Financial crisis impact 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!

Opportunities for ports from infrastructure 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.

Comparative yields for infrastructure investments – ports still do all right

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

Speakers

- **Pierce Homer**, **Transportation Director, Moffatt & Nichol: Public sector perspective on supply chain partnerships**

- **Jonathan Red, Partner – Global Logistics Development Partners: What ports need to do to prepare for and attract private sector capital**

- **Nathaniel 'Sam' Ruda, Director of Marine and Industrial Development/Port of Portland (OR): Evolution of strategic thinking process PoPortland took in deciding to lease T6**

- **Joseph Seliga Esq and Jeromy S Cannon, Esq – Mayer Brown LLP: How overall choice of P3 structure filters into a few key provisions in ultimate agreement (eg, T6 lease)**

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

Thank You

Aegir Port Property Advisers

Drewry Maritime Advisors