

Port Infrastructure: adapting in the new world of capital deficits and growing infrastructure gap and the role port property will play ©

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Franco J Pigna CRE FRICS CMC



Who we are:

Aegir Port Property Advisers

Aegir is a pioneer property consultancy engineered to meet the highly specialised property challenges and needs of the maritime industry, specifically ports, terminal operators and their respective lenders, investors and developers.

Drewry Maritime Advisers

Established in 1970, London based Drewry is one of the world's foremost port and shipping consultancies and major publisher of industry market intelligence and port consulting services.



Swire Group

Hong Kong: 1800's & Today



Port to Property company

- Established 1816
- The 'Noble House'
- Operating Income (2011): US \$4.4B

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Aegir Port Property Advisers

Agenda

- Evolution of port authorities
- What business are port authorities in today?
- Port property issues and challenges
- The Infrastructure Challenge
- Current state of 'port property'
- Conclusions



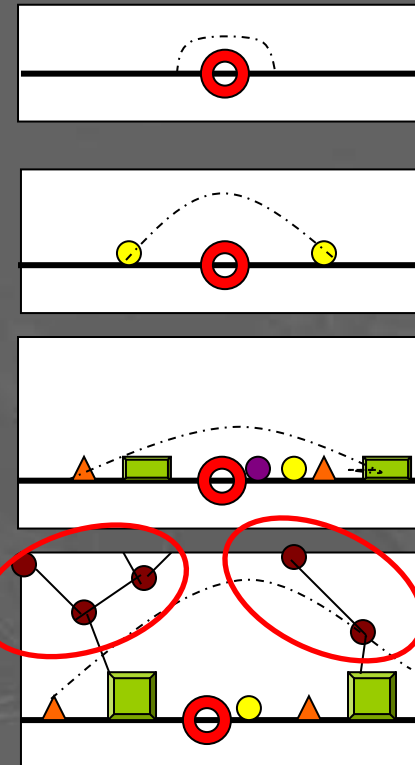
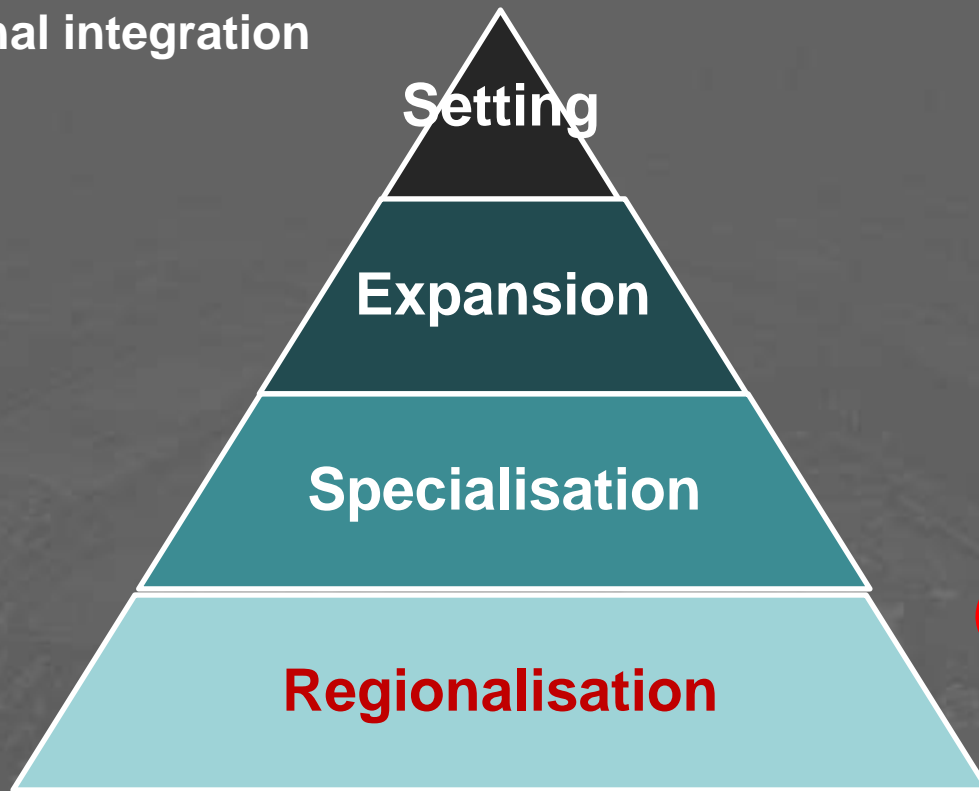
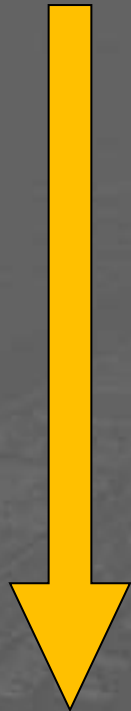
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Regionalisation: shifting port authority's role

Level of functional integration



land

sea

Evolution of a Port

James Bird, Anyport, Notteboom, TE, Rodrigue, J P, Port Regionalisation: Towards a New Phase in Port Development, Maritime Policy & Management, 2005



Port



Container



Bulk



Freight dist centre



General cargo



Reconversion



Freight corridor



Urban area



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Port Authorities' evolution

Specialisation → Regionalisation

Transport node → Transport nexus

Port operator → Asset manager

Service provider → Services regulator

PA's – you're in a different business now



Port Authority's future role

- Competition: between supply and logistics chains, global cities - not countries
- Shipping: now a commodity; timing, price and competitive advantages to be found over land
- PA's role: increase throughput/efficiency by exercising 'transport leadership' throughout hinterland



Port Authorities' hinterland challenges

- Big ships (ULC) demand deeper hinterland reach to maintain economies of scale/be profitable - ports need to deliver
- Terminal operators increasingly becoming 'door-to-door' logistics providers
- Clients demand reliability and capacity balanced with cost – more throughput on same footprint
- Intermodality is key to deeper hinterland reach



PA's – the natural transport leaders?

Why PA's are natural transport (vs logistics) leaders for logistics chains*:

- Investments in **logistics poles benefits all users**; throughput charges allow PA's to more equitably invest in infrastructure
- PA's better **manage port communities/clusters**, creating more efficient, broader and competitive load centres
- PA's better **manage environmental constraints**
- Better **managed logistics poles/inland facilities** guarantee PA's maintain competitive advantages and competition within supply chains

* Notteboom, 2008

One of many port authority hinterland infrastructure strategies

- **Objectives:**
 - Develop greater capacity, throughput and velocity through the hinterland
 - Increase reach into the hinterland
- **Solution:** inland intermodal hubs
- **Need:** PA's and the private sector will need greater investment in extended terminals and inland logistics **infrastructure**



Intermodal Hubs (Dry Ports)

Why:

- Port land values high
- Ports need more throughput/velocity
- Transport congestion, contamination
- Big ships require deep hinterland reach
- 'Just in time' shift to 'integrated time' ie, diversify entry points

Rickenbacker Global Logistics Park (Ohio)



Why are Inland Ports important?

Vertical integration

Global Supply Chain - first step understanding where containers come to rest?

- At or near the Port or
- At an inland (CFS) facility shipped there via rail or truck



The end of the 'land bridge' is the beginning of vertical integration...

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What business are ports in today?

Port?



Regional shopping centre?



The core business of port authorities – their key goals

- Generate maximum revenues possible, most of which are property based ie, real estate and land rent and throughput based rent on 'right to use'
- Maximise value of port or port leaseholds by optimising rent revenue and land usage
- Increase competitive advantages
- Extend port 'life cycle' to circumvent economic/functional obsolescence (eg, alternative use for port lands)



So what business are you in?

Asset managers and landlords of
port and port related property and
land portfolios



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Lease structuring – what makes a port different

Costs

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

Revenue

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



Some lease issues

- Realistic capital basis (land value) – the starting point
- Balance between property based rent and throughput based rent MAG (rating agencies?)
- Terms & conditions, adequate and proper rent reviews
- Meaningful lease rates; ‘financeable’ leases



Some valuation challenges

- Valuation of port properties benchmarked against true 'like kind' properties (but there are few 'sales')
- Need to concentrate on port's specialised economic use (yet maximisation takes second to economic development)
- Replacement, comparable sales or income approach?
- Recapture of infrastructure, real return of and on capital (yet ports still highly subsidised)



Examples of surprising port property values

Keystone Coal v. Port of Jacksonville (2009)

- Where: St Johns River, Jacksonville
- Size: 28.33 hectares
- Acquisition: '08 \$10m
- Reported award: Approximately \$64.5m (highest in history of state)
- Price per hectare: \$2.28m

Port of New York & New Jersey (2010)

- Where: Marine Ocean Terminal at Bayonne
- Size: 54.63 hectares
- Reported Sale: \$235m
- Price per hectare: \$4.3m
- On the surface seems expensive, once you get into the details it wasn't



Port property – port's new strategic asset

- If 8,000 TEU ship requires 100 acres to keep container flow inbound smooth, then 18,000 teu may need 223 (?)
- Throughput per acre is key to making customers money and satisfied eg, in US about 4,000 – 5,000 TEU/acre yet in Europe 10,000 and Asia reaching 20,000 and higher is not unusual
- Therefore: PA's need to increase inland land banks to process greater throughput, address value added functions required by clients



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The infrastructure challenge – why things will change, quickly

- US\$57 trillion in global infrastructure required in 2013 to 2030 **just to keep up with projected GDP growth** (McKinsey Global Institute)
- This exceeds the value of global infrastructure today (MGI)



Infrastructure challenge

- Example:
 - US alone requires \$1.6T in infrastructure next five years (double current outlay) to reach acceptable levels (ASCE)
 - US national debt is now at \$16.8 trillion
- How many believe infrastructure can/will continue to be funded the way it has been worldwide?
- Has time arrived where need for infrastructure capital has outpaced ability of most governments to fund it?



Net result?

Infrastructure is a capital intensive, long range planning process.

Global trade and cargo throughput is outpacing government's ability to keep up with infrastructure needs as currently financed.

How will things change?

Infrastructure funding will come from private capital markets – property represents the security for expanded, low cost borrowing.



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AAPA's Real Estate Subcommittee

Research paper:

overview on how ports manage their largest asset
– property, challenges faced and key issues for
further research

Most ports follow a 'landlord' model operating structure, effectively making them asset managers. This research paper surveys a cross section of ports geographically and functionally to identify current port management viewpoints on property assets and reviews port property as an asset class and discusses areas for further research and study.



State of port property

- International survey of six ports:
 - US Gateway
 - US Inland
 - US Gulf
 - European gateway
 - Asian transshipment
 - Latin American regional



State of port property

- Port's surveyed represent a portfolio of:
 - 34,176 acres/13,831 hectares
 - \$6.835 billion in land value (at \$200k/acre or \$495k/ha)
 - 2,145,000 teu's
 - 750,000,000 MT



Some survey results

- Ports need to act like a business and not constrained by economic development issues
- Have reached serious point of being capital constrained; past financing methods do not work
- Need to better understand private sector capital markets
- Believe solutions will come from private sector



Some survey results (cont.)

- Shift to property rent revenue from MAG's and throughput charges (to protect property values)
- Property side of business needs to be better understood by staff
- Terminal concessions do not take into account underlying land value
- No starting basis of value for property portfolio



Some survey results (cont.)

- Traditional appraisers do not understand dynamics of port business, challenged in identifying 'highest and best' uses
- Want accurate data on property values to better manage business
- Economic development requirements disconnects them from real, competitive world
- Leases do not reflect real financial performance needs



Some survey results (cont.)

- No port property asset management in place
- Capitalisation rates and financial performance thresholds not readily defined
- Property departments understaffed; importance of property little understood outside of senior management
- Underperforming financially



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Conclusions

The future of this industry promises to evolve at exponentially faster rates than ever before.

Regardless of size, all ports grappling with where to finance expansion and modernisation.

Property will be the ports' sector's next frontier.



Thank You

*Helping you navigate
the world of port properties*

Aegir Port Property Advisers

T +1 305 423 7711

F +1 305 423 7712

www.aegirports.com

info@aegirports.com

