

Chapitre 4

The City-Port Relationship: Its evolution, changing dynamics and challenges for port authorities

Franc J Pigna

Managing Director

CRE, FRICS, CMC

Florida USA

Biography

Franc J Pigna is the Managing Director of Aegir Port Property Advisers. Aegir is a pioneer, port property consultancy specialising in meeting the unique property challenges faced by ports and the maritime industry through practical, market driven, port property strategies using a port's largest asset – property – in more strategic ways.

Aegir is allied with London based Drewry Maritime Advisors, a globally recognised provider of commercial, economic, supply chain and technical consulting services to the international shipping, ports, related maritime industries. Together they bridge the property and maritime industries providing comprehensive analysis and advice to ports, their users and investors.

Pigna has been meeting property challenges worldwide on behalf of clients in the port, shipping and related logistics sectors and financial, investment and corporate real estate industries for over thirty years. He is a member of the Counselors of Real Estate in the US and is a Chartered Management Consultant and Fellow of the Royal Institution of Chartered Surveyors in the UK. Pigna is a frequent speaker at major trade conferences and has published articles on a range of subjects related to port properties, infrastructure port finance and Public Private Partnerships.

Introduction

This chapter investigates the evolution of the city – port relationship, where it finds itself now and where it might be going. The city – port relationship is one that has gone through various phases ie, discovery, interdependency and spatial and strategic separation.

Due to a convergence of many factors such as the increasing globalisation, more intense competition for cargo throughput based on achieving ever higher economies of scale, a more challenging financing environment for much needed global infrastructure remediation and expansion, increasingly difficult financial positions of major cities and growing ecological constraints a re-assessment of the city – port relationship is being called for. Amongst other things, this is calling to question everything from the structure of port authorities to what the realistic expectations of their shareholders should be.

Navigating the road ahead will certainly be full of challenges for both cities and ports. It is also a road with many opportunities for both cities and ports, collectively and individually, if they reach an effective common ground together.

The responsibility of showing the way forward to transform the city – port relationship into a more productive one today rests primarily on the shoulders of ports. More strategically managing this relationship for ports is now critical; it is in fact one of the most important challenges ports in cities face today, if not the most important one.

Evolution of the city-port relationship

'The first and simplest emotion which we discover in the human mind is curiosity' (Edmund Burke). In this regard, ports, or what would become ports, were motivated by man's curiosity and became launching pads to new frontiers. These land-sea interfaces and thereafter bridge points evolved into crossroads of cultures and eventual hubs of commerce, ensuring, largely, that they would eventually evolve as cities.

Most non-sessile (ie, mobile) animal species engage in exploration, especially man. From the times of the Phoenicians to today, man was by nature born to explore. Generally, exploration is searching for the discovery of information, resources or, in some cases, survival. Today, many believe space exploration is driven by man's penchant for both exploration and survival. What is the connection of all this with 'city-ports'? Ports originally, launching pads for exploration, increasingly became for many cultures necessary for growth and in fact survival.

Almost without fail, most ports in the Old and New Worlds started as mere link points inland to larger population centres. In Western Europe ports evolved as

coastal gateways to larger inland population areas while in North America ports became connections to land bridges from coast to coast. While in Asia, the evolution of primary population centres started at or near the coast with relatively little inland population centres developing and consequently low hinterland coverage, which is, for the most part, the case today.

Today most major coastal population centres, have become 'city – ports' of some magnitude. Over time, this prompted what once might have been the relevant question of which came first, the city or port. For a number of reasons this relationship is rapidly changing as ports increasingly are losing the historically central focal point their host cities and citizenry had for them. At this point, the question has become irrelevant; what is relevant is what Goss (1990) argued, which was, 'it serves no useful purpose to ask which functions came first or are the more important: they go together.' Ports in cities in the 21st Century have their work cut out for them to ensure that they will in fact, 'go together'.

As city-ports evolved, the separation between the city and port was indistinguishable from one another and co-dependent in most respects, with their relationship clearly being thoroughly symbiotic. Until the 19th Century, the port represented for the cities the nerve centre of all transport routes, which was anchored solidly in the city (Pinna 2007). The evolution of port cities briefly went from being defence fortresses in medieval times to centres of trade, warehousing and manufacturing. In the 1850's, port expansion started taking the port's boundaries beyond city boundaries but the relationship between the city and port remained very much an interdependent one. That is until the advent of containerisation in the 1960's.

In addition to containerisation, there are additional elements that are affecting the viability of ports in port-cities one of these elements is the intensified competition for cargo. In this regard the location of ports relative to the East West circumnavigation trade routes (Ducruet 2010) and the consolidation of the shipping and logistics companies globally (ie, shipping lines, freight forwarders, logistics agents, third party logistics companies, etc), will increasingly dictate which port facilities will be used to access relevant supply and logistics chains.

Separation of city - port interests

Since the early 1970's, the relationship between ports and cities have experienced substantial changes and greater friction and divide; changes which have been closer to revolutionary than evolutionary (Hoyle and Hilling 1984). This has been primarily caused by advances in shipping technology, increasing demand for vast back up land required by modern terminals to process the required greater throughput and attain the needed velocity to meet financial thresholds and the need to be able to better access inland transport networks to attain a deeper reach into the hinterland.

There were other developments, which accelerated both the economic and spatial divide between cities and ports, resulting in this relationship increasingly becoming adversarial in many instances due to technological and managerial changes in global transportation (Hoyle, 1989).

One such development is the ever-increasing size of ships and the advances in ship technology to attain economies of scale across the board. These larger ships require greater depth alongside the quayside, deeper navigation channels and additional land at and near dock. Without this, they will not effectively be able to handle and process larger amounts of containerised cargo and offer better access to and from the port from inland transportation companies. This is pushing terminal development downstream to deeper water and more, less expensive, land, rendering the 'old' city docks functionally obsolete.

Most city-ports today are or will eventually reach a point of becoming land constrained as the city continues to grow around it. The advances in shipping and logistics technology and the eternal quest for economies of scale, also has a common demand element – land. Although technology can address this to a certain point, by being able to process more tonnage and containers from the same footprint, at some point additional land banks will be required. This and the aforementioned is resulting in many ports located in inland, urban areas becoming functionally obsolete and requiring their expansion further downstream towards deeper, open water.

Additionally, containerisation and the increasing automation of terminal operations has resulted in a decline in the overall complement of workers at ports and will continue to have an impact on the numbers and types of workers at terminal and port related facilities as well. This has significantly changed most ports from being centres of major direct employment to centres of high technology logistics distribution, where the direct employment numbers, no longer have the same community impact as they once did.

Another factor negatively affecting the city – port relationship was the relocation of port operations downstream, leaving behind large swathes of empty, blighted, rat infested heavy industrial urban land in city centres, negatively affecting the city – port relationship. In many cases, these blighted, industrial, waterfront areas remained abandoned eyesores for the cities for decades until relatively recently when the city's population growth, urbanisation and demand for additional commercial and retail space created viable markets for their re-development. Today examples of this can be seen Europe in such urban waterfront re-development projects as London's Canary Wharf and Docklands, Hamburg's HafenCity, Rotterdam's Kop van Zuid and Amsterdam's IJ oever. While in the Americas New York's South Street Seaport, Baltimore's Inner Harbor, Boston's Faneuil Hall, San Francisco's Embarcadero and Buenos Aires' Puerto Madero are prime examples of ex-port lands being redeveloped and re-incorporated into the urban fabric of their respective cities.

This disequilibrium between cities and ports has been occurring for some time now. Cities have been downplaying the role and position of ports in their urban landscape for decades. Back in 1977, James Bird stated, 'Port function is considered as disturbing the regularity of the "central place theory" (Bird 1977)'. This is a theory created by German geographer, Walter Christaller (Central Places in Southern Germany (1933)), that attempted to explain the number, size and location of human settlements within an urban system; essentially stating that settlements functioned as 'central places' providing services to surrounding places. Some of the main criticism surrounding the 'central place theory' though was that it was too static and did not well account for the diversified services and distribution networks of industrial and post-industrial areas. Although 'central place theory' is today not applicable in the modern world, this does strongly indicate that even decades ago the schism between city and port was becoming a major issue. We may now have arrived at a point worldwide where the city - port relationship has tilted away from the port as the challenges ports now face from their city hosts and its respective citizenry are outweighing the synergies between cities and ports, both real to some point but more importantly perceived ones.

Additionally, as cities grew in population, their commitments to their citizens in areas of education, safety, security, and social entitlement programmes, along with requisite infrastructure expansion and maintenance grew exponentially as well. This, coupled with cities worldwide typically not managing their finances in a disciplined fashion, has resulted in operating deficits and strains on city budgets far outpacing their ability to fund them. This and the increasing need for additional funds has led cities to aggressively increase their traditional sources of 'revenue' (ie, mainly through higher taxation), but also to seek new sources of revenue as well, for example from ports whose trustees or shareholders happen to be cities or their respective municipalities.

Decades ago, when most ports were structured to follow the operating model, their goals and objectives were, besides handling cargo, the creation of jobs and other direct contributions to economic and community development. With the landlord model being followed by most ports today (where they no longer operate ports but are their asset managers), ports are no longer directly involved in hiring large numbers of workers as technology has significantly reduced the relative complement of cargo handling staff at ports worldwide. This said cities and their government shareholder counterparts have not abandoned the use of ports as vehicles to execute their social and economic agendas. Now though port authority shareholders (eg, cities, municipalities) do this in a more indirect fashion by setting up non-port related initiatives under the guise of 'economic development' to be funded by ports. This while ports increasingly have had to become more financially self-reliant as their government shareholders' budgets can no longer afford to fund their capital requirements for port infrastructure expansion and modernisation.

Under this environment, cities and ports took decidedly divergent courses. While these divergent courses still prevail today, they are under significant pressure to change and some of the reasons for this follow herewith.

The argument for alternative use of port lands

For cities with growing populations, the pursuit in the last few decades of increasing affordable housing stock, cleaner environments, job creation and creation of quality urban, especially waterfront, environments and expansion of the tax base has become paramount. Ports on the other hand increasingly face growing regional and international competition, further, expensive integration into the supply and logistics chains of their respective hinterlands and dealing with dynamically changing port technology and port operating structures. However, the most important challenge ports face is the growing threat of economic obsolescence.

Economic obsolescence is defined as 'the loss in value resulting from influences external to the property itself, which may be international, national, industry-based, or local in origin'. As it relates to ports and their shareholders, various external factors affecting potential economic returns and having a direct impact on the 'market value' of an asset or property (typically a port's largest asset class), can be alternative uses of the asset that will result in higher revenues and value for the shareholders. In the case of ports, an alternative use of the port land for the development of say, high-density residential, commercial, retail and other urban community uses.

Most ports located in cities were and are located in central, strategically located areas. Over the years, as cities expansion to the suburbs reached major constraints based on land, water and transport infrastructure shortages, along with physical constraints and changing demographics, the city's core became a more attractive development area for housing and consequently more densely populated. This type of development in the city has started to encroach in and around port areas in very significant ways. This encroachment in and near the port, along with the growth in cargo traffic at the port, has taxed existing transport infrastructure and created increased levels of traffic congestion and air, noise and light pollution levels.

Additionally, as surrounding land has been used for non-port related uses, ports are becoming land constrained, which has made them less efficient in processing cargo at or near the port, an issue that with the increasing size of ships, is becoming critical for ports.

There are a number of issues today making cities and their respective citizen's question whether a port use is the 'highest and best use' of what increasingly

are becoming very valuable city located port lands⁶. Some of the issues being juxtaposed by cities are the increasing spatial separation between port and city (resulting from increasing security requirements) and the negative impact on the environment, city transport infrastructure and traffic congestion resulting from a port use when compared with the potential for a wider tax base and increased tax revenues, more direct employment and an overall cleaner use that alternative commercial, residential and other uses might represent.

Some of the commonly discussed alternative uses cities contemplate for port lands are the re-development of the urban waterfront into urban residential, commercial, retail and touristic centres and community focal points. In this manner, cities would produce much needed additional housing stock, centres of employment, expansion of the tax base, new tax revenues from increased property values, new projects and tourism, undertake urban renewal of certain blighted areas and create catalyst for additional development. In short, cities on the surface seem to have a compelling case against the expansion and possibly the continuation of port use on valuable central city land.

There are of course numerous reasons that can counter weigh the aforementioned city arguments by a wide margin. Some of these are: the port may be a major transport node in a nationally critical supply and logistics chain to inland hinterlands; the port is of national strategic importance at its current location from an economic and defence standpoint; there are no ecologically acceptable alternative sites to duplicate the role and capacity of the current port (and this will probably be one of if not the most important reasons for the long term survival of city-ports); the 'real economic impact' that the port produces throughout its sphere of influence is far greater than a city might envisage; there is no funding available to undertake a greenfield port project; and the potential revenues and capital that could be unleashed from the port's assets for the port's shareholders may be larger than thought possible.

Ports as national strategic assets - the Australian example

Notwithstanding the divide that has occurred between cities and ports, some national governments have stepped up to defend and protect ports and their land assets based on a wider set of national priorities beyond that of the city in question.

⁶'In public appraisal and tax appraisal, that use of land which would be the most economically advantageous over a given period of time, while at the same time being legally, financially and physically possible.' The Complete Real Estate Encyclopedia by Denise L. Evans, JD & O. William Evans, JD. Copyright © 2007 by The McGraw-Hill Companies, Inc.

Notwithstanding the divide that has occurred between cities and ports, some national governments have stepped up to defend and protect ports and their land assets based on a wider set of national priorities beyond that of the city in question.

One example is the recent (2012) National Ports Strategy developed by Infrastructure Australia and the National Transport Commission (Australia) for Australia ports. The reason for developing such a strategy seems to have been twofold: 1. Australia firmly believing that ports and landside logistics chains are critical to Australian business competitiveness, economic growth and productivity and 2. The premise that Australian ports and related landside logistic chains face major challenges from growth in trade (Infrastructure Australia – National Ports Strategy 2011).

As a backdrop to the development of a national ports strategy one needs to understand that in Australia the urbanisation of major cities (most of which are port-cities), has grown at an exponential pace. Recently a report commissioned by Ports Australia, in partnership with the Western Australia Freight and Logistics Council and Ports WA, *Leading Practice: Port & Supply Chain Protection*, outlined steps that need to be taken to protect the nation's ports. The report states that Australia will pay a high price in lost productivity if development encroachment of lands accessing port areas is allowed. The report went on to state that the dwellings in the Central Business District near ports have increased fivefold in value since 1986, placing significant pressure on urban waterfront land for alternative uses to ports.

The port and supply chain report stated that to successfully protect key port facilities, freight nodes and infrastructure corridors the following needs to occur: identification and preservation of new port facilities and freight and infrastructure corridors and statutory protection of existing port facilities and freight nodes and infrastructure corridors from 'inappropriate' land uses, encroachment and conflicts with non-transport and logistics uses.

The report identified that there is a critical need for 'improved freight and industrial planning'. Ports Australia's Chief Executive, David Anderson, was quoted in an article in *Transport and Logistics News*, stating that the productivity and competitiveness of Australia's economy was highly dependent on its ability to reduce unit transport costs. In this vein he went on to further state, 'Our landside access corridors and our shipping channels are of equal importance in the overall performance of our freight networks and we seek a strong focus on the need to protect, maintain and develop these key elements of our supply chains.'

Australia is looking to rationalise its port and landside logistics assets in order to ensure that there will be adequate capacity through the reconciliation of all interested parties that are important to ports. In this manner Australia hopes to accomplish a

number of goals, such as: the more efficient delivery of Australian exports to market; facilitate removal of barriers to trade, reduce transaction costs, increase competition and provide important links to domestic and global value chains; and attract private sector investment into the national ports and logistics sectors.

Australia has also historically recognised its dependency on maritime trade and the importance of its ports as gateways to the world for its exports and imports. Consequently, it should be of no surprise, considering the aforementioned and the economic and social importance of its ports systems that Australia would take such an innovative, national and comprehensive approach to addressing its ports and related infrastructure challenges through, amongst other things, protecting its port assets as being of national strategic importance.

Some of the most important goals of the Australian National Port Strategy is the recognition of the importance of striking a balance between land planning, freight requirements and corridor preservation with societal and amenity needs. It is clearly stated in the document (Infrastructure Australia – National Ports Strategy 2011) that the freight community sees ‘encroachment’ as one of the largest challenges they face, a challenge that the Australian government is taking seriously. One of the many goals of the strategic plan is the careful reservation of transport corridors and ‘relevant and required lands’. One of the most interesting aspects of the Australian National Ports Strategy is how the country seeks to reach the optimum balance between its ports, transport corridors, the public and private sectors and the needs of the various communities.

Another goal Australia is looking to achieve is the protection of port and related and required lands, as evidenced by a number of action items. As it relates to ports and their respective land holdings, some of the action items contained in the strategic plan include: the identification of relevant maritime spaces (‘to be treated as part of the relevant ports’); identification of landside access routes to be designated as national freight corridors; identification of each metropolitan area’s requisite inland intermodal terminals and related warehousing space; and the identification of any national interests relative to port from a national defence and security purpose.

Unfortunately, this holistic approach at addressing the myriad and sundry challenges faced by ports and cities, especially at a national level, is not a widespread undertaking by the shareholders of most city ports worldwide – yet. However, the time is nearing when there will be little, if any, choice but to undertake this challenge in a similar, if not parallel manner as it has by Australia. The convergence of increasing cargo throughput at most strategically located ports, the lack of adequate public sector funding for port modernisation and expansion and the major ecological constraints existing for the development of new ports in greenfield sites will dictate the continued use of existing port facilities, but in infinitely more efficient ways.

Motivation for the city – port reconciliation

There are also a number of developments currently occurring which could be catalysts to bringing the city and port into closer co-operation and possibly into a renewed partnership. The burden for making this happen though will rest predominantly on the shoulders of ports.

Notwithstanding the worldwide 'Great Recession' at the end of the first decade of the 21st Century, the outlook for the global Gross Domestic Product and international trade in the next decades still remains positive. Mature economies will grow on average from 2013 to 2025 by 1.4 percent per annum and emerging market and developing economies will grow at 3.2 percent per annum, respectively.

In 2012, according to the World Bank, trade, as a percentage of global Gross Domestic Product, was approximately 60.58 percent; this is expected to continue to grow. It is also generally accepted that more than 90 percent of global trade is carried over water. Therefore, the need for expanded and modernised port facilities will continue to grow, albeit under a very challenging financing environment. This is and will continue to result in the rationalisation of port assets and facilities and a consolidation of gateways. All of this will result in more intense competition between gateway ports and supply chains for cargo throughput and will require a concerted joint effort between ports and cities to remain competitive and capture market share and all of the economic and logistical benefits this represents for cities and their respective regions.

Cities, municipalities and other government entities that are shareholders of port authorities were once banking the infrastructure funding for ports. For the most part these were poorly veiled government subsidies given under the premise of 'economic development' and job creation. This has now dramatically changed with the typical budget deficits that these government entities are now running. Instead of funding ports, they have now become demanding shareholders. As such, these government shareholders are now looking for ports to fund various 'economic development' initiatives ie, the ongoing and supported programme by policy makers and communities to promote help and make better a general level of health, economy, security and business in a community or region - usually requiring public funding, subsidies and collaboration between government and private sector entities.

In many cases, municipalities have manoeuvred 'economic development' projects above the 'bottom line' of the port's income statement. This is highly counterproductive for ports and their financial performance as it clouds both management's and the industry's ability to gauge the true financial performance of the port authority. At some point, the shareholders of the port will need to acknowledge this and make changes to facilitate and enhance senior management's ability to perform better financially. After all, port authorities

operating in a more transparent manner and better performing by increasing their revenues and consequent dividends to their shareholders will afford the shareholders more funds to undertake any initiative they seem fit. However, this will more likely happen if the funds are distributed from below the bottom line.

Evolution of the port authority structure

These changes are already occurring at major gateway ports through the corporatisation of the port authority. Essentially, this requires changing the structure of the port authorities' statutes, which will allow it to operate as a 'for profit' entity by, amongst other things, updating their core business mission for 21st Century realities. It also de-politicises the port authority, allowing it to concentrate on its core business through such changes as a board made up of experienced business individuals (rather than political appointees).

The Port of Rotterdam is a prime example of a port that successfully was 'corporatized' and whose financial and operating performance benchmarks significantly increased afterwards.

Based on the massive need for infrastructure investment worldwide and in ports more specifically, along with most governments' inability fund needed infrastructure investment properly, the corporatisation of port authorities will become more prevalent in the industry. This in turn may very well lead to the eventual privatisation of many port authorities, as has been the case with many port authorities in Australia recently (Pigna 2014).

In the long run cities will have to come to the realisation that their investment in ports will need to be managed differently than it has been if the port authority is to compete and generate the maximum revenues possible. To accomplish this several things will need to take place. First, the recognition by cities that ports, most now following the port landlord operating model, have as main sources of revenues a combination of fixed and variable rents (ie, property based rent and cargo throughput based rent, respectively). Therefore, to succeed as a landlord the port authority must focus on producing the maximum amount of revenues and enhance the value of the port, through its major asset – property. To accomplish this it must facilitate and promote its tenants and the entire port-centric business community's ability to attract and handle greater cargo throughput. In this manner, with more profitable tenants and greater cargo throughput the port authority will be able to generate more property based variable and fixed rents, respectively. Secondly, the port authority will need to operate under a heightened sense of commercial transparency and under a structure facilitating it to act as an entity 'for profit', including their meeting with financial performance thresholds such as return on asset, return on investment and others.

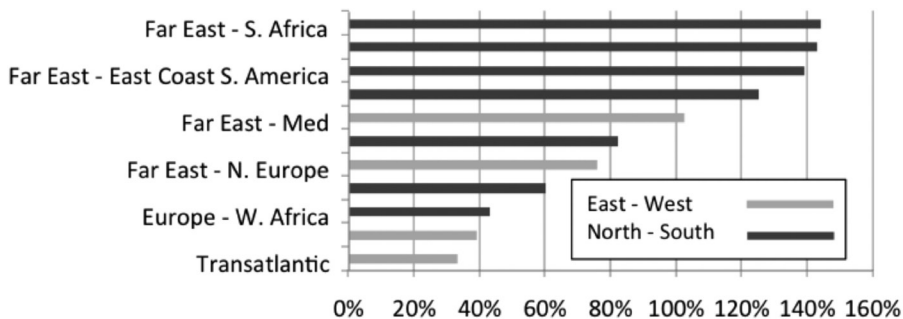
Third, ports are operating under increasingly global economy and under an intense competitive environment, where competition is no longer between countries or regions but between global cities and supply chains. To compete in this environment ports will need strong city partners.

Market and industry challenges for city-ports

In addition to the challenges and conflicts currently impacting the relationship between many cities and ports, there are a number of other challenges that are market and industry based. One of these is the increasing size of container ships and the impact this will have on ports and their respective gateway status and supply chains.

In the mid 1990's the largest container ship was the Regina Maersk at 7,400 teu's (twenty-foot equivalent units). Today we have the Maersk Triple E class at approximately 18,000 teu. By 2018, carriers may have in their fleet 22,000-teu size ships. The following table shows the substantial rate of growth in the size of ships from 2006 to 2013 in the major trade routes.

Figure 1: Increase in average container ship size by trade route, 2006-2013



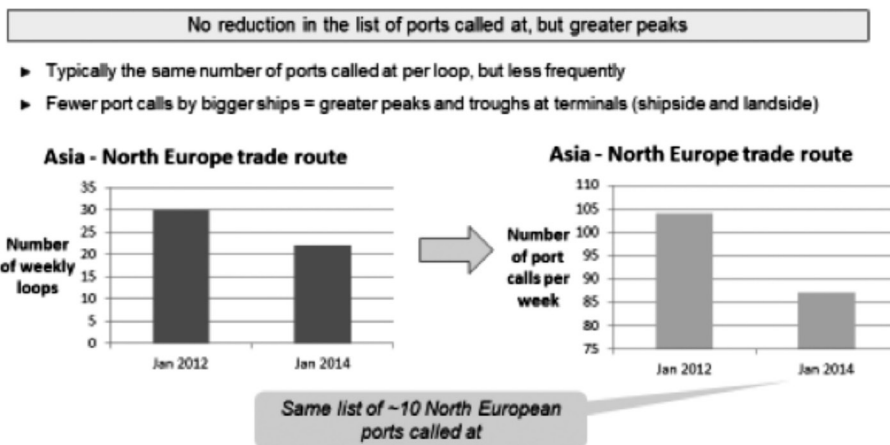
Source: Drewry Maritime Advisors

As it relates to the scope of this chapter, the focal point of ultra large container ships, and in fact any of the other larger ship type coming on stream, is how their business models will impact the ports industry. For these ships to be maximally productive they need to be constantly operational as their business model is based on achieving major economies of scale. To accomplish this they need to make as few ports-of-call as possible. These ports will need to have the infrastructure in place to be able to process large numbers of containers, not only at and near dock, but also well into the hinterland. This will require extensive and costly infrastructure to accomplish this along with large land banks. Ports located in cities are, for the most part, land constrained. To obtain the necessary land banks now required to process the type of cargo throughput the larger ships

will produce will require a well-planned logistics corridor strategy incorporating connections between the port and inland container freight stations, distribution centre and other port related facilities. One of the key elements will be to remove any non-cargo throughput related activity off port and inland into less expensive, more abundant land banks.

Another development resulting from large ships will be further consolidation of and bigger alliances in shipping. The following graph shows the relationship between the size of ships, shipping alliances and port calls. The main objective of this consolidation is to achieve significant reduction in costs by optimising assets between the major shipping routes (ie, Asia/Europe, Asia/US and Europe/US). Recently, Maersk announced the establishment of the '2M' alliance between them and MSC, following the failed 3P alliance. According to Drewry analysis, 2M already exceeds European Union consortium regulations by exceeding the allowable threshold of 30 percent by two percentage points. Drewry believe that although 2M will be the largest alliance in the Europe/Asia route, the EU will allow it as it will significantly reduce costs.

Bigger ships and bigger alliances



Source: Drewry Maritime Advisors

As it relates to ports, the ramifications of this carrier consolidation and increasing ship size are significant. Some of the quantifiable results we are now seeing of this are fewer vessels at sea. In the first half of 2014 the industry experienced its first decline in number of vessels in two decades. According to Drewry forecasts, an increase of six percent per annum in the size of the global fleet just through the increase in the average size of ships will occur, along with a further concentration of volume at fewer ports with less frequent service.

There is no question that the environment ports operate in will become even more competitive. Looking at this from the shipper's and shipping lines' side one needs to realise that for them, it is all about delivering the fastest, cheapest and deepest reach into the hinterland for their clients. Ports fully understand this; most cities do not. It therefore is in the future best interests of ports to ensure that their host cities are educated on the ramification these challenges represent to their respective communities, as the most effective way ports will be able to compete will be with the support of and in partnership with their host city.

The port's industry for decades was in state of slow evolution. In the 21st Century, this has accelerated to one of revolution. In this dynamic state of change there are going to be winners and losers. The relationship between a city and a port remaining relatively static can no longer be either assumed or taken for granted by ports. To do this simply places the port's competitiveness and viability at an undue disadvantage.

The road ahead

The road ahead holds many areas of opportunities for city - port partnerships that will position themselves to capture them.

A recent Boston Consulting Group study (The Shifting Economics of Global Manufacturing: how cost competitiveness is changing worldwide – 2014) stated that low cost manufacturing centre perceptions are out of date. In this study BCG concluded that China, Brazil, Russia and the Czech Republic are no longer less expensive manufacturing centres than the United States; that China's manufacturing costs are now running about six percent greater than those in Mexico; and Mexican labour is approximately 13 percent less expensive, adjusted for productivity, than China's.

The study states that most economies in their manufacturing index fall into four distinct patterns of change: under pressure, losing ground, holding steady and rising global stars. The rising stars are ones with improved competitiveness compared to others based on moderate growth, sustained productivity gains, stable exchange rates and energy cost savings. From over twenty countries analysed as manufacturing centres there were only two rising stars: Mexico and the United States. An indicator of Mexico's rising manufacturing comparative advantage is its automotive sector, where this year it surpassed Brazil as the largest carmaker in Latin America. Does the shifting economics in global manufacturing present both opportunities and threats supply chains and ports? Without question, especially in the Americas.

Issues like changing manufacturing centres, the widening of the Panama Canal, shifting manufacturing in Asia, making the Suez route more viable, and other factors are certainly going to impact the decline, growth and establishment of

new supply and logistics chains and represent opportunity for some ports and major threats to others. This all raises a multitude of critical questions and issues, which need to be addressed, such as: port authorities revamping core business missions and being restructured in order to operate in a more transparent, efficient and profitable manner; ports needing to take a more regional leadership approach throughout their respective supply and logistics corridors in order to make them all more competitive and attractive to shippers and shipping lines; and ports needing to make further commitments to become exemplary corporate citizens.

Conclusions

The relationship between cities and ports over time could easily be described as one having gone through the phases of discovery, marriage and divorce. The critical question now, for both cities and ports, is whether they will enter a new phase of 'reconciliation'.

Ports today are under attack from a multitude of sectors ranging from increasing globalisation and competition between supply chains to a very challenging deficit of capital funding for much needed infrastructure investment worldwide. Cities need to let ports better compete in the marketplace and become more self-sufficient financially. This is a matter of mutual need, as cities can no longer fund port capital requirements and increasingly will need dividends from ports to fund the ongoing deficits in their budgets.

Ports will also need to leverage off their 'nexus' capabilities to become more proactive leaders throughout their respective supply chains and logistics corridors, adding a significant layer of relevancy to their role locally.

Ports will need to embrace the environment even more robustly than they have as leaders and innovators in this regard, as environmental constraints are an ally to a port's current location.

Finally, to survive, ports will need to take the lead in educating their city partners in the challenges they face individually and collectively in the dynamic global economy both live in and prove that by working closer together in partnership the potential for achieving their respective goals, individually and collectively exponentially increases.

Ports need to be infinitely more strategic in the manner they manage the port – city relationship. This is the 'call to action' for city ports today.

References

- Lee, Song & Ducruet, 'Models of hinterland organization in the world's main port regions' (2006), as quoted in Ducruet, César, 'Port-city relationships in Europe and Asia', *Journal of International Logistics and Trade* 4(2), pp.13-35, 2006.
- Goss, RO 1990, 'Economic Policies and Seaports', *Maritime Policy Management*, vol. 17, N° 3, pp.207-219, quoted in Ducruet, César, 'A metageography of port-city relationships', *Ports, cities, and global supply chains*, edited by Wang, J.J., Notteboom, T.E., and Slack, B., (London: Aldershot, Ashgate, 2007), pp. 157-172.
- Pinna, Carlotta 2007. 'Development of ex-functional areas of water's cities', Master 3 Hybrid Building: Architectural Research AR3 Auth 23, 19 January 2007. http://www.issuu.com/carlottapinna/docs/research_report_landscape_carlotta_pinna#, accessed 24 August 2014.
- Ducruet, César, 'A metageography of port-city relationships', *Ports, cities, and global supply chains*, edited by Wang, J.J., Notteboom, T.E., and Slack, B., (London: Aldershot, Ashgate, 2007), pp. 157-172.
- Hoyle, Brian S and Hilling, David, *Seaport Systems and Spatial Change: Technology, industry and development strategies*, (Chichester, New York: John Wiley & Sons Ltd, 1984).
- Hoyle, Brian S, 'The port-city interface: trends, problems, and examples', *Geoforum* (1989), vol. 20, n° 4, pp. 429-425. Quoted in César Ducruet, 'A metageography of port-city relationships', *Ports, cities and global supply chains* (London: Aldershot, Ashgate, 2007).
- Bird, James, *Centrality and Cities* (London: Hutchinson of London, 1977).
- Encyclopaedia Britannica, 'Central Place Theory', <http://www.britannica.com/EBchecked/topic/102569/central-place-theory>, accessed September 2014.
- Kasperova, Valentina, 'Christaller's Central Place Theory & Reilly's Law of Retail Gravitation', PowerPoint presentation, IB Geography HL, http://www.potiori.com/Central_Place_Theory.html, accessed September 2014.
- Remsha, Michael J, 'Identifying and Quantifying Economic Obsolescence', American Appraisal, <http://www.american-appraisal.com/US/Library/Articles/Identifying-Quantifying-Economic-Obsolescence.htm>. Accessed on 6 September 2014.
- Australian Government/Infrastructure Australia, 'National Ports Strategy, 2011' (PDF file), downloaded from National Transport Commission – Australia site, [http://www.ntc.gov.au/Media/Reports/\(58A1EDC5-9301-4153-7CE1-BB3AB9F8A631\).pdf](http://www.ntc.gov.au/Media/Reports/(58A1EDC5-9301-4153-7CE1-BB3AB9F8A631).pdf), accessed 6 September 2014.
- Pauka, Charles, 'Residents will drive ports out of town: report', *Transport & Logistics News*, (3 June 2014), <http://www.tandlnews.com.au/2014/06/03/article/residents-will-drive-ports-out-of-town-report/>, accessed September 2014.
- Ibid.
- Ibid.
- Australian Government/Infrastructure Australia, 'National Ports Strategy, 2011' (PDF file), downloaded from National Transport Commission – Australia site, [http://www.ntc.gov.au/Media/Reports/\(58A1EDC5-9301-4153-7CE1-BB3AB9F8A631\).pdf](http://www.ntc.gov.au/Media/Reports/(58A1EDC5-9301-4153-7CE1-BB3AB9F8A631).pdf), accessed 6 September 2014.
- The Conference Board, 'Global Economic Outlook 2014', <http://www.conference-board.org/data/globaloutlook/>, accessed September 2014.
- Pigna, Franc J, 'Port Authority Corporatisation: leading towards their privatization?', *Port Infrastructure Finance*, edited by Meersman, H., Van der Voorde, E., Vanelander, T., (London: Informa law from Routledge, 2014), pp. 69-86.