

The Governance Structure of Ports

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Abstract

The recent worldwide trend towards devolution in the port industry has spawned considerable variety in the types of governance structures now in place around the world. This paper discusses the range of devolution alternatives adopted in the global ports sector, as identified by the World Bank and academic researchers. It then examines the Canadian model more closely as it attempts to follow a more novel path, that of the not-for-profit organization.

1 Introduction

The governance of ports globally has changed quite dramatically over the past two decades, much of it as a result of government devolution programs. Rodal and Mulder's (1993: 28) defined devolution as "the transfer of functions or responsibility for the delivery of programs and services from the federal government to another entity," which may be "another order of government or a non-governmental organization, community group, client association, business or industry." While this definition does not include privatization, (Brooks, 2001) concluded that the extent of devolution may range from partial to full privatization.

Devolution programs are part of a recent trend toward alternative service delivery (ASD). This reform movement, which has taken place over the past two decades, is a response to at least two drivers of change. First, rapid improvements in information technology have increased the transparency of government operations, providing citizens with greater ability to monitor and participate in government activities (Ford and Zussman, 1997; Rodal and Mulder, 1993). Second, throughout the late 1980s and into the 1990s, increasing deficit and accumulated debt burdens (Ford and Zussman, 1997), coupled with low levels of public confidence in government, forced governments to find ways to do more with fewer resources (Osborne and Gaebler, 1992).

Such thinking has been a key driver of the movement towards port "privatization" in many countries. The use of management concessions are often mistakenly called privatizations when they are, in essence, commercializations, or partnerships as defined by Rodal and Mulder (1993). In concession agreements, the investments made by private sector companies are often sunk and, while some agreements may include recoveries for the investment from other than revenue streams, the assets revert to the government owners at the end of the agreement. True privatization is the full transfer of ownership, not just a transfer of temporal rights, however long-lived. It may be that concession agreements are considered privatizations by some as the duration of the contracts confers

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the rhetoric of ownership although not the reality of it. Figure 1 illustrates the continuum of devolution.

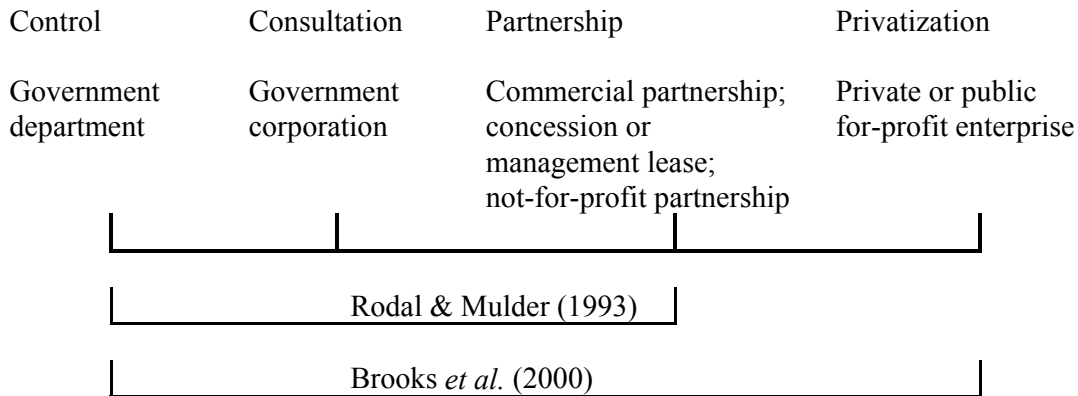


Figure 1. Devolution continuum

Note: Typology of devolution implies governance choice by regulator.

This paper focuses in particular on port management governance models (as an element of organization structure), and begins by explaining the World Bank Port Reform Toolkit (WBPRTK) models. It then discusses the range of devolution alternatives adopted in the global ports sector, using the approaches taken in several countries as illustrations. It then examines the Canadian approach, and the three models implemented there, in greater detail, concluding that the existing literature has still not adequately defined governance models.

2 Administrative models under the World Bank port reform toolkit

The WBPRTK outlined four port administration models and assessed the strengths and weaknesses of each model. The choice of model adopted in each country is influenced by the way the ports are organized, structured, and managed. These factors include the socio-economic structure of a country, the historical development of the port, the location of the port (urban area or isolated region), and the types of cargo that are typically handled (liquid or dry bulk, containers).

The four administration models outlined in the WBPRTK are the Service Port, the Tool Port, the Landlord Port, and the Private Service Port. These models differ by whether the services are provided by public sector, private sector or mixed ownership providers, their orientation (local, regional or global), who owns the superstructure and capital equipment, and who provides dock labour and management.

2.1 Service port model

This is a predominately public model in which the Port Authority owns the land and all available assets (fixed and mobile) and performs all regulatory and port functions. All cargo-handling operations are performed by labour directly employed by the Port Authority. This model is used in many developing countries.

In Service Ports, the port is usually controlled by the Ministry of Transportation (and /or Communications). The Chairman of the Port Authority is usually a civil servant responsible for port administration, and who directly reports to the appropriate Minister. In some cases, cargo-handling services are performed by separate public entities; this division of operations between separate public entities can present unique management challenges. Under this model, the same organization has the responsibility for performing regulatory functions, developing infrastructure and superstructure, and executing operational activities. Generally there is an absence of private sector involvement in port activities.

It can be said that the strength of this model lies in the fact that facilities development and operation are the responsibility of only one entity, making for a streamlined and cohesive approach to growth. On the other hand, the dearth of internal competition can lead to inefficient port administration, or to a lack of innovation, and services that are not user-oriented or market oriented. Dependence on government for funding may lead to wasteful use of resources or under-investment.

2.2 Tool port model

This model is characterized by divided operational responsibilities. The Port Authority owns, develops, and maintains the port infrastructure and superstructure, including cargo-handling equipment such as quay cranes, forklift trucks etc. The operation of Port Authority equipment is usually performed by Port Authority labour, but other operations are performed by private cargo-handling firms, on board vessels as well as on the quay and apron. The private operators are usually small companies.

While the model results in an avoidance of duplication of facilities because investment in infrastructure and equipment is provided by the public sector, the fragmentation in responsibility for cargo-handling can lead to conflict between small operators and between the stevedoring companies and port administrators; another weakness of the model is that there is also a risk of under-investment. Strong stevedoring companies are not developed as a local economic benefit.

2.3 Landlord port model

In this model, the Port Authority maintains ownership in the port while the infrastructure is leased to private operating companies. The responsibilities of the Port Authority as landlord include economic exploitation, the long-term development of the land, and the maintenance of basic port infrastructure such as access roads, berths, and wharves. The private operating companies that lease from the Port Authority provide and maintain their own superstructure and purchase and install their own equipment. Dock labour is also employed by the private leasing companies.

The strength of this model is that the same entity both executes operations and owns the cargo-handling equipment; therefore, the planning is likely to result in better outcomes and be more likely greater responsiveness to changing market conditions. However, there is a risk of over-capacity as more than one private operator may pressure for expansion. Also, there may be duplication of marketing effort as both terminal operators and the port authority visit potential customers; greater co-ordination of marketing and planning is required with this model.

2.4 Private service port

In this model, the public sector (the state) no longer has any interest in port activities. Port land is owned by the private sector. All regulatory functions and operational activities are performed by private companies. This is the model used in many ports in the United Kingdom. As Baltazar and Brooks (2001) note, there are pitfalls to this model:

“If the government opts to privatize the regulator functions, the authors believe these should not be outsourced to the port. If this happens, as it sometimes does, the fox would be in charge of monitoring or overseeing the chicken barn, and the potential for abuse of the natural monopoly position that ports may enjoy increases dramatically.”

This model often results in investment in port operations that are flexible. A particular strength of the model is that port development and tariff policies tend to be market-oriented. On the other hand, this type of model may result in monopolistic behaviour as well as a loss of public involvement in developing long-term economic policy and strategies.

The allocation of responsibilities implicit in the characteristics of the four WBPRTK models is summarized in Table 1.

Responsibilities	Service	Tool	Landlord	Private
Infrastructure	Public	Public	Public	Private
Superstructure	Public	Public	Private	Private
Port labour	Public	Private	Private	Private
Other functions	Majority public	Mixed	Mixed	Majority private

Table 1: Allocation of responsibilities under the World Bank models

Note: Mixed=public/private

Source: Adapted from World Bank Port Reform Tool Kit, module 3, p. 21.

www.worldbank.org/transport/ports/toolkit/mod3.pdf

3 Alternative approaches

Over the 1990s, Baird undertook a significant amount of work detailing the governance models used in port privatization (Baird, 1995, 1999 and 2000). Of these, Baird (2000) provides the best overview; in this article he summarizes and discusses four models (two with differing emphasis on mixed public/private provision) as illustrated in Table 2. More importantly, Baird allocates, in Table 2 of his paper (p. 182, not reproduced here), specific port activities to the three port function roles (regulator, landlord and utility). When Baltazar and Brooks (2001) attempted to use Baird’s allocation of functions to assess governance in two countries, Canada and the Philippines, they found that these functions did not always fit the columns to which they had been assigned.

Not only is the WBPRTK approach too simple, it does not provide guidance to a government faced with pressure to devolve port administration as to which approach(es) to

take for a given local situation. For that, there needs to be greater understanding of the antecedents of better port performance (a separate paper).

	Port functions		
Port Models	Regulator	Landlord	Utility
PUBLIC	Public	Public	Public
PUBLIC/private	Public	Public	Private
PRIVATE/public	Public	Private	Private
PRIVATE	Private	Private	Private

Table 2: Allocation of responsibilities as described by Baird's port function privatization matrix

Source: Baird (2000), Table 1, p. 180.

To clarify the distinctions between differing types of devolution for the port industry, Baltazar and Brooks (2001) classified port-related activities into Regulator, Landlord, and Operator activities based on Baird's work (see Table 3).

Governance	Regulator functions	Port functions	
		Landlord	Operator
Public	<ul style="list-style-type: none"> • Licensing, permitting • Vessel traffic safety • Customs and immigration • Port monitoring • Emergency services • Protection of public interest on behalf of the community • Determining port policy and environmental policies applicable 	<ul style="list-style-type: none"> • Waterside maintenance (e.g. dredging) • Marketing of location, development strategies, planning • Maintenance of port access • Port security • Land acquisition, disposal 	<ul style="list-style-type: none"> • Cargo and passenger handling • Pilotage and towage • Line handling • Facilities security, maintenance, and repair • Marketing of operations • Waste disposal • Landside and berth capital investment
Mixed public/ private			
Private			

Table 3: Baltazar and Brooks' (2001) port devolution matrix

Note: Depending on the particular regulatory regime of each country, not all functions assigned to the Regulator column may be relevant. All functions assigned to the Operator column may take place, but be provided by the Landlord or the Regulator as determined by local practice.

Source: Adapted from Baird (2000), de Monie (1994) and Goss (1990). The functions were reclassified by Baltazar and Brooks (2001).

Baltazar and Brooks (2001) clearly separated regulatory functions from port functions, and sought to distinguish operations specifically rather than as utilities. Unlike Baird, they did not draw lines horizontally across the activities as they assumed that this allocation would vary widely across countries. It would be the pattern of allocation that would

identify a particular approach as distinct. Most important, however, is the idea that the functions may not always be provided as neatly as Baird or his predecessors suggest.

“In most instances, within a port the actual proportion of public and/or private sector participation with regard to individual activities associated with each of the three core functions [regulator, landowner, utility] may also vary (that is there may be varying degrees of both private and public sector stevedores, landowners, and entities carrying out different regulatory function activities).”
Baird (2000: 181)

Generally, in a public port, all regulator and landlord functions fall to the public sector, although none, some, or all operator functions may be undertaken under contract by the private sector; control of the conditions of operation resides with the government. In partial privatization, some operator and/or landlord functions are privatized, usually with the public sector retaining full control of the regulator function. In full privatization, all of the operator and landlord functions are transferred from the public to the private sector. The government may also opt to go so far as to use ASD models to provide regulator functions.

Baltazar and Brooks’ approach, therefore, goes beyond that described by the WBPRTK models. It not only accepts that the division of activities may be among public providers, private ones, or a mix of the two, but also anticipates that various models may incorporate differing levels of responsibility. These responsibilities may be for monitoring public interest, financing investment, and so on, and may be shared among providers. The governance models for the provision of infrastructure may be more complex than proposed by the four WBPRTK models or by Baird (2000).

It is appropriate that models be simple and based on observation, but they also have to be validated as encompassing the full range of possibilities. This has not been done. A simple look at Baird (2000) suggests more than four models. While the private model privatizes everything, this is only true for some of the UK ports. Under the philosophy of alternative service delivery, there is the possibility that the government may act solely as regulator, in the interests of public safety and security and the prevention of maritime pollution, and yet there is no provision for this under the WBPRTK approach. The WBPRTK approach also does not recognize that differing governance models may reflect differing strategic purposes, be they defined by government or the port entity.

4 Country-specific approaches

Before governance structures can be examined, it is importance to understand what governance is. The OECD (1999) defined corporate governance as

“The system by which business corporations are directed and controlled. The corporate governance structure specifies the distribution of rights and responsibilities among the different participants in the corporation, such as the board, managers, shareholders and stakeholders, and spells out the rules and procedures for making decisions on corporate affairs. By doing this, it also provides the structure through which corporate objectives are set, and the means of obtaining those objectives and monitoring performance.”

Therefore, it would be a mistake to criticize corporations for failure to achieve public policy objectives (Sternberg, 1998). In the private ownership model, corporate governance is the structure, roles, and responsibilities that provide the means by which the organization is managed as an economic entity, based on the objectives of the corporation.

The corporation is in business to meet the objectives set by the Board to the benefit of owners, not in business to meet the objectives of government, regulators or other stakeholders. According to Brooks (2001: 3):

“In devolution, each devolved entity faces an identity crisis: does it co-opt the objectives of government, or identify its own in keeping with the views of the newly created Board, or co-opt those of [its] community stakeholders?”

In other words, the port must define its strategic vision. That depends on the governance model under which it operates and the legislative, economic and social environment in which it operates. Governance practice is the imposition of a system of rules and responsibilities compatible with the strategic intent of the organization and its vision for the future. Directors may incorporate broader social responsibilities as part of the Board’s vision, but such adoption of a broader social view is not consistent with existing private sector practice, although there is a trend towards this philosophy on some boards and some corporations are concerned that the Board and the organization practice Corporate Social (and Environmental) Responsibility.

Looking at the governance of ports in other countries more closely will provide better understanding of the range of models in use today.

4.1 Port governance in the United States

US constitutional limits on federal involvement in port activities have prevented the formation of a national ports plan and strategy (Ircha, 1995). Ircha traced the evolution of US ports from the private sector (as railroad ports) to their current incarnations as public enterprises, managed under local and regional governance structures. According to Newman and Walder (2003), the current governance framework is complex and fragmented with a web of public and private organizations involved in management at national, regional, and local levels, each with differing priorities, requirements and procedures. Olson (1988: 313) identified 10 jurisdictional forms used in the US port system, providing examples of each. The result of this approach to port governance has been intense competition among ports in the US.

A 1998 study (MarAd, 1998) examining port financing among other things noted that US ports in fiscal year 1996-97 were heavily dependent on government (loans, grants and taxes) and tax-exempt revenue bonds for their capital, with only 31.7 percent of total revenue being generated by the ports’ operations. This is in contrast to Canadian ports, which are required to be financially self-sufficient and fund capital expenditures via their revenue streams and commercial borrowings. In addition, while US ports remain responsible for maintenance dredging at or near berths, channel dredging is provided by the US Army Corps of Engineers. Ircha (2001) argues that this decentralized model has proven to be an effective one, in that US ports are able to promote local economic interests. However, the approach has also been denounced for its unfair subsidies, and promotion of an uneven playing field between ports both nationally and internationally (Brooks, 1992). Helling and Poister (2000: 307) note “because [US] ports are publicly subsidized, competition does not ensure efficiency.” Drawing on Helmich *et al.*, (1996)’s conclusions that port capacity is not used optimally, and that there is considerable room to make improvements in port productivity, they concluded that “subsidized competition may have created excess port capacity in the United States” (Helling and Poister, 2000: 307). The multiplicity of governance forms in the US will make these ports particularly interesting participants in future governance model research and validation.

4.2 Port governance in the United Kingdom

The UK represents another unique approach to port management. Changes in governance of ports in the UK began with the sale of shares in Associated British Ports on the London Stock Exchange in 1983. Following the 1991 *Ports Act*, governance of UK ports moved closer to the fully private sector model. Extensive study of the UK experience has led to much criticism of the UK approach to the privatization of ports; Thomas (1994), Saundry and Turnbull (1997), and Baird (1995) all suggested that the outcome fell short of the efficient markets ideal.

The sale of the various Port Authority ports to private enterprises represented a unique challenge because no market had previously existed for the sale of port land. A major criticism of the UK experience was that the base values the government used to calculate the sale prices of the land were inadequate. Subsequent trading in port shares following the privatization period revealed that most UK ports were sold for approximately between 5% and 25% of their real market value (Baird, 2000: 184). These discount prices meant that the reduced capital costs can be considered a form of state aid, as on-going interest costs are lower than would have been the case had the full market value been extracted (Baird, 1999: 119).

Another criticism of the UK's privatization approach was that the government's abandonment of its regulatory role was too drastic. Following on Goss' (1990) suggestion that some port functions should be considered public goods and services, Baird (2000) noted that privatized ports actually invested less in development than the predecessor port authorities (Baird, 2000: 189). Believing that it is the role of government to prevent a private port owner from demonstrating monopolistic behaviour, Baird called for a national regulator to be created (Baird, 2000: 186) in line with those created for other privatized utilities. Gilman (2003), on the other hand, contended that, under the *New Approach to Transport Assessment*, port managers will be required in designing port investment projects to address sustainability concerns in the development application process, and confirmed that the UK government has reaffirmed its desire not to be involved in the business of port management (Gilman, 2003: 283). The business of port regulation, as distinct from port management, has been minimalist at best; a national ports policy, for example, is only implied by the actions of government.

4.3 Port Governance in Hong Kong

Cullinane and Song (2001) and Song (2002) depicted the port management structure in Hong Kong as a three-tiered hierarchy. The top tier is the Government of the Hong Kong Special Administration Region (HKSAR), which leases land sites to private terminal operators, the third tier. The second tier is the Marine Department, which acts in the capacity of a port authority by performing regulatory functions and assisting in strategic planning. In addition, the Hong Kong Maritime Industry Council (MIC) and the Hong Kong Port Development Council (PDC), twin entities born from the Port and Maritime Board, have been tasked with further developing and promoting the territory's maritime and port industries. The third tier in Hong Kong's port management structure consists of four privately owned companies that own and operate all container terminal facilities and perform all cargo-handling activities.

Because Hong Kong is one of the world's largest ports, and has a relatively small land mass dedicated to cargo handling operations for the volume handled, its model of private participation has been the poster child for public-private arrangements, delivering the message that private is best. While this may be the case, in that private sector competition

is associated with better asset utilization, it does not confirm that the model is appropriate for all situations.

4.3 Port governance in India

Indian ports currently operate under a service port model wherein all operations, services and facilities are provided by the port authority (Haralambides and Behrens, 2000). (Such a model is common in developing countries.) Included in the government's economic growth strategy is the intention to transform port management from the service port model to the landlord model. It is proposed that the port authority will only be responsible for regulatory functions and infrastructure while private enterprises will perform all operational and cargo-handling activities, generally operating under leases. Shashikumar (1998: 35) attributed the apparent success of Mumbai's "privatization" to adherence by the parties involved to the principles of "privatization," but was concerned that the port authorities in India ensure that no private terminal operator monopolizes the country's container trade (Sashikumar, 1998: 35). In the context of the range of devolution models, the governance model implemented in India is not privatization, as the assets will revert to the port authorities upon expiration of the management leases. (See the previous discussion on concession agreements.) Haralambides and Behrens (2000) concluded that the rigidities of India's approach to governance are a stumbling block to its success.

4.4 Port governance in Australia

In the 1980s, Australian states came under pressure to devolve port management and administration. Prior to reform, most ports were established as state statutory authorities (Everett and Robinson, 1998). According to Dick and Robinson (1992), port reform did not get it right; ports were not able to deliver aggressive port management because government failed to alter the fundamental structure of port authorities, the culture within port authorities discouraged innovation and initiative. Ports were devolved but the approach was a mixed one, depending on the locale. While most opted for a corporatized structure, the State of Victoria ports of Geelong and Portland were privatized, and the government of Western Australia opted for a commercialized model (Everett, 2003).

Everett (2003) noted that the problem with Australia's corporatized model is that private sector outcomes are expected, but legislative models oblige the minister to be involved in the day-to-day decision-making. The resulting ministerial intervention leads to sub-optimal performance because the full realization of commercial objectives is subject not to the laws governing corporations, but to those statutes establishing the entity. Thus Ministers have the ability to exercise power over the activities of the corporation whether or not they are in keeping with the strategic intent and direction of the organization, as suggested by the Matching Framework and the concept of fit. Everett (2003) concluded that there needs to be a legislative framework compatible with the business (governance) model imposed by the government, for example, if ports are to function optimally, they need to have a legislative framework appropriate to their corporate structure.

Everett and Robinson (1998) also concluded that, in the case of port reform in Australia, the government failed to remove non-core assets from ports, fund public service obligations outside of port budgets, or control staffing in excess of that necessary for core port activities. In these cases, they argued, the ownership of the port is not relevant to the performance outcome. They too noted that governments are not just seeking port efficiency but also national competitiveness.

4.5 Port governance in Canada

In 1936, the Canadian Government implemented Canada's first ports policy with the creation of the National Harbours Board (NHB), a Crown Corporation under the *National Harbours Board Act*. The system was one of central command and control, with a standard set of port charges to be applied across the country and no local marketing expertise (Goss, 1983). The situation did not last, and port administration in Canada fragmented. By 1981, the NHB only controlled 15 ports handling 50% of Canada's seaborne trade, 11 trade-significant ports were governed by different legislation (*The Harbour Commissions Act of 1964*), and more than 500 smaller ports and government wharves were directly administered by Transport Canada.

The first steps towards devolution began under the Liberal government in the 1970s. After numerous false starts, the government's reform efforts finally succeeded with the passage of the *Canada Ports Corporation Act*. This model featured a parent Board of Directors in Ottawa and each former NHB port became a Local Port Corporation (LPC). The LPC Boards of Directors were, however, appointed by the Minister of Transport. More important, budgets for the LPCs were approved in Ottawa and investment, if required, was financed through the borrowing power of the Government of Canada. Although ports continued to be eligible for financial support from government, they were also able to borrow from private financial institutions. While this devolution program deviated from the command and control structure ports were under previously, it failed to fully deliver its promise of commercialized, market-driven entities (Brooks, *et al.*, 2000; Baltazar and Brooks, 2001).

With the election of the Mulroney Conservative government in Canada in 1984, the country embraced ASD and devolution. This process persisted with the Chrétien Liberal government privatizing Canadian National (one of North America's Class 1 railways) and NavCanada (the air navigation system) and continuing to commercialize the airports, albeit under a not-for-profit corporation model. In Canada, the intention of reform in the other transport sectors was to secure the benefits of commercially driven business decision-making in organizations previously run by government while, at the same time, securing compensation for prior investments by taxpayers (Brooks *et al.*, 2000). It was philosophically time to reconsider Canada's port management experiment.

Port re-reform in Canada was implemented with the passing of the *Canada Marine Act*, which came into force on January 1, 1999 (Baltazar and Brooks, 2001). However, the not-for-profit model invoked for ports did not go as far as the airport model, as Canadian ports remained agencies of the federal government. A major criticism of the new management model was that the government opted to have the Minister of Transport control appointments to the Boards of Directors of the various Canadian Port Authorities (CPAs) (Brooks *et al.*, 2000). With this method of appointment, Board decisions made may reflect ministerial priorities if the appointees choose to exhibit more loyalty to the Minister than fiduciary responsibility to the entity, as required under the governing legislation. The transition from a central approach to port management to a decentralized model focusing on business-like elements of competition has proved challenging.

CPAs are not the only model in use in Canada. The *National Marine Policy* proposed in 1995 the division of ports in Canada into three categories: CPAs, Local/regional Ports, and Remote Ports. These each had different ownership, differing organizational structures and processes, and different reporting mechanisms. Thus three governance variants of the

port matrix were implemented, and size and volume of traffic are not perfectly correlated with the model chosen by government.

The three models are illustrated in Tables 4 to 6, using the Baltazar and Brooks’ port devolution matrix presented in Table 3. The allocation of functions between public, private and mixed governance models is colour-coded to clarify that even the clustering or grouping of functions within one country may vary between models, and that not all functions will exist in all ports.

Governance	Regulator Functions	Port Functions	
		Landlord	Operator
Public	<ul style="list-style-type: none"> • Licensing, permitting • Vessel traffic safety • Customs and immigration • Port monitoring • Emergency services • Protection of public interest on behalf of the community • Determining port policy and environmental policies applicable 	<ul style="list-style-type: none"> • Waterside maintenance (e.g. dredging) • Marketing of location, development strategies, planning • Maintenance of port access • Port security • Land acquisition, disposal 	<ul style="list-style-type: none"> • Cargo and passenger handling • Pilotage and towage • Line handling • Facilities security, maintenance, and repair • Marketing of operations • Waste disposal • Landside and berth capital investment
Mixed Public/Private			
Private			

Table 4: Allocation of functions for Canada Port Authorities

Note: The font colour indicates allocation. **Blue** indicates private sector ownership and provision while **green** indicates mixed public private ownership and provision. If the government retains ownership via a government corporation, the function remains **black** in colour.

Governance	Regulator Functions	Port Functions	
		Landlord	Operator
Public	<ul style="list-style-type: none"> • Licensing, permitting • Vessel traffic safety • Customs and immigration • Port monitoring • Emergency services • Protection of public interest on behalf of the community • Determining port policy and environmental policies applicable 	<ul style="list-style-type: none"> • Waterside maintenance (e.g. dredging) • Marketing of location, development strategies, planning • Maintenance of port access • Port security • Land acquisition, disposal 	<ul style="list-style-type: none"> • Cargo and passenger handling • Pilotage and towage • Line handling • Facilities security, maintenance, and repair • Marketing of operations • Waste disposal • Landside and berth capital investment
Mixed Public/Private			
Private			

Table 5: Allocation of functions for Local / Regional ports in Canada

Note: The font colours indicate allocation. **Blue** indicates private sector ownership and provision while **green** indicates location-dependent mixed ownership and provision. If the government retains ownership via a government corporation, the function remains **black** in colour. **Red** means may not be provided.

Governance	Regulator Functions	Port Functions	
		Landlord	Operator
Public	<ul style="list-style-type: none"> • Licensing, permitting • Vessel traffic safety • Customs and immigration • Port monitoring • Emergency services • Protection of public interest on behalf of the community • Determining port policy and environmental policies applicable 	<ul style="list-style-type: none"> • Waterside maintenance (e.g. dredging) • Marketing of location, development strategies, planning • Maintenance of port access • Port security • Land acquisition, disposal 	<ul style="list-style-type: none"> • Cargo and passenger handling • Pilotage and towage • Line handling • Facilities security, maintenance, and repair • Marketing of operations • Waste disposal • Landside and berth capital investment
Mixed Public/Private			
Private			

Table 6: Allocation of functions for Remote ports in Canada

Note: The font colours indicate allocation. **Blue** indicates private sector ownership and provision while **green** indicates location-dependent mixed ownership and provision. If the government retains ownership via a government corporation, the function remains **black** in colour. **Red** means may not be provided.

The Canadian approach contains a strong government regulator function, and government or a government corporation or government agency performs, in two of the three models, landlord and some operator functions. In no case could these two models (CPAs and Remote) be considered privatization, although the commercialized nature of both CPAs and Local/regional ports delivers the “benefits” of privatization.

As of January 1, 2004, the restructuring of port governance in Canada is nearing completion (Table 7). All but 69 of 568 ports have been devolved, or been determined that it is in the public interest to maintain federal government involvement (as in the case of ports serving dependent remote communities).

Port deproclaimed	211
Transferred to provincial governments	40
Transferred to other federal departments	65
Divested to local interests (local/regional ports)	111
Demolished or Transport Canada’s interest terminated	23
Local/regional ports remaining	
under Transport Canada (still to be devolved)	69
Remote ports	<u>30</u>
Total	549
Canadian Port Authorities	<u>19</u>

Table 7. Implementation of port devolution in Canada as of January 1, 2004.

Source: Transport Canada Port programs and divestiture web site <http://www.tc.gc.ca>.

In their examination of Canadian ports, Baltazar and Brooks (2001: 17) concluded that “Canada’s port management structure was well-suited to its 1950s circumstances and role ports played in the Canadian economy. The majority of traffic was low value commodities, captive to the nearest port, or connected to that port by an east-west rail system. In other words, the environment was one of low uncertainty and low complexity and dynamism. The management strategies of the day were efficiency-focussed. Ports in Canada, even when they were partially devolved from the Federal Government with the introduction of the 1982 bill creating Local Port Corporations, still sent their operations-driven plans to Ottawa annually for approval. Structure and systems were mechanistic, with control still firmly in the hands of the Federal Government through the Canada Ports Corporation. Local capital expenditure decision-making was capped at C\$10 million. There was no capability to pledge assets and working capital was provided by government at commercial rates.”

They noted that there is not one right governance model applicable to all environments. Whether a port is managed via a non-share capital not-for-profit model or a private model, it has the ability to deliver positive outcomes, often touted as those best achieved by privatization, however they be defined.

5 Conclusions

For Juhel (2001), the balance between public and private sectors in industries contributing to economic development is the critical issue in devolution outcomes. He noted:

“The new distribution of roles between public and private actors, in particular, calls for an appropriate allocation of duties and responsibilities, of risks and rewards, to make the global transportation system work to its best efficiency.” (Juhel, 2001:174)

Cullinane and Song (2001) concluded that ports have generally have been moving away from the public model, and there are plenty of illustrations to support this conclusion. Hoffmann (2001) has examined port devolution in Latin American and found a wide range of outcomes (perceived success) of devolution. The review of the literature in this paper, by far from complete, indicates that most port devolution programs have been fraught with difficulty, and that none of the approaches is without its detractors. Only Cullinane *et al.* (2002), Song and Cullinane (2001), and Valentine and Gray (2001) have tied governance to performance. Baltazar and Brooks (2001) argued that, for all sizes and types of ports, governance–performance links should be examined and governance models tested against performance outcomes, for varying port strategies. Further research remains to be done on the relationship between governance and performance. Baltazar and Brooks (2001) contended that full privatization is not necessary and that alternative devolution models can be successful if the appropriate governance model is present. This view is not a radical one. As Caves *et al.* (1982) and Boardman and Vining (1989) showed, the private sector does not always outperform the public sector.

6 References

- Baird, A.J. (1995) "Privatisation of Trust Ports in the United Kingdom: Review and Analysis of the First Sales," *Transport Policy*, 2: 135-143.
- Baird, A.J. (1999) "Analysis of Private Seaport Development: The Case of Felixstowe," *Transport Policy*, 6: 109-122.
- Baird, A.J. (2000) "Port Privatisation: Objectives, Extent, Process and the U.K. Experience," *International Journal of Maritime Economics*, 2: 177-194.
- Baltazar, R. and M.R. Brooks (2001) "The Governance of Port Devolution: A Tale of Two Countries," Seoul, Korea: World Conference on Transport Research, July.
- Boardman, A.E. and A.R. Vining (1989) "Ownership and Performance in Competitive Environments: A Comparison of the Performance of Private, Mixed and State Owned Enterprises," *Journal of Law and Economics*, 32: 3-33.
- Brooks, M.R. (1992) "Issues in North American Container Port Competitiveness," *Journal of the Transportation Research Forum*, 32: 333-43.
- Brooks, M.R. (2001) "Good Governance and Ports as Tools of Economic Development: Are They Compatible?" *Proceedings of the International Association of Maritime Economists Annual Conference*, Hong Kong, July, 1-19.
- Brooks, M.R., Prentice, B. and T. Flood (2000) "Governance and Commercialization: Delivering the Vision," *Proceedings*, Canadian Transportation Research Forum, 1: 129-143.
- Caves, D.W., Christensen, L.R., Swanson, J.A. and M.W. Tretheway (1982) "Economic Performance of U.S. and Canadian Railroads: the Significance of Ownership and the Regulatory Environment," in *Managing Public Enterprises*, Stanbury, W.T. and F. Thompson (eds), New York: Praeger Publishers, 123-151.
- Cullinane, K.P.B. and D.-W. Song (2001) "The Administrative and Ownership Structure of Asian Container Ports," *International Journal of Maritime Economics*, 3: 175-197.
- Cullinane, K.P.B. and D.-W. Song (2002) "Port Privatisation: Principles and Practice," *Transport Reviews*, 22: 55-75.
- De Monie, G. (1994) "Mission and Role of Port Authorities," *Proceedings of the World Port Privatisation Conference*, London: 27-8 September.
- Dick, H. and R. Robinson (1992) "Waterfront Reform: The Next Phase," Presented to the National Agriculture and Resources Outlook Conference.
- Everett, S. (2003) "Corporatization: A Legislative Framework for Port Inefficiencies," *Maritime Policy and Management*, 30: 211-219.

- Everett, S. and R. Robinson (1998) "Port Reform in Australia: Issues in the Ownership Debate," *Maritime Policy and Management*, 25: 41-62.
- Ford, R. and D. Zussman (1997) "Alternative Service Delivery: Transcending Boundaries, in Alternative Service Delivery," *Sharing Governance in Canada*, KPMG Centre for Government Foundation and Institute of Public Administration of Canada.
- Gilman, S. (2003) "Sustainability and National Policy in UK Port Development," *Maritime Policy and Management*, 30: 275-292.
- Goss, R. (1983) *Policies for Canadian Seaports*, Ottawa: Canadian Transport Commission.
- Goss, R. (1990) "Economic Policies and Seaports—Part 3: Are Port Authorities Necessary?" *Maritime Policy and Management*, 17: 257-271.
- Haralambides, H.E. and R. Behrens (2000) "Port Restructuring in a Global Economy: An Indian Perspective," *International Journal of Transport Economics*, 27: 19-39.
- Helling, A. and T.H. Poister (2000) "U.S. Maritime Ports: Trends, Policy Implications, and Research Needs," *Economic Development Quarterly*, 14: 300-317.
- Helmich, J. S., T.H. Wakemann and R.D. Stewart (1996) "Technology, Intermodal Transportation and Port Productivity: Throughput Maximization and Environmental Sustainability," *The Journal of Urban Technology*, 3: 11-38.
- Hoffmann, Jan (2001) "Latin American Ports: Results and Determinants of Private Sector Participation," *International Journal of Maritime Economics*, 3: 221-241.
- Ircha, M.C. (1995) "US Port Policy: Evolution and Structure," *Maritime Policy and Management*, 22: 281-294.
- Ircha, M.C. (2001) "North American Port Reform: the Canadian and American Experience," *International Journal of Maritime Economics*, 3: 198-220.
- Juhel, M.H. (2001) "Globalization, Privatisation and Restructuring of Ports," *International Journal of Maritime Economics*, 3: 139-174.
- MarAd (1998) *A Report to Congress on the Status of the Public Ports of the United States 1996-1997*, Washington DC: US Department of Transportation, Office of Ports and Domestic Shipping.
- Newman, D. and J. H. Walder (2003) "Federal Ports Policy," *Maritime Policy and Management*, 30: 151-163.
- OECD (1999) *OECD Principles of Corporate Governance* (SG/CG(99)5), Paris: Organisation of Economic Co-operation and Development, April.

Olson, D. J. (1988) "Public Port Accountability: A Framework for Evaluation," in Hershman, M.J. (ed.), *Urban Ports and Harbor Development*, New York: Taylor & Francis, 307-333.

Osborne, D. and T. Gaebler (1992) "Introduction: An American Perestroika," in *Reinventing Government: How The Entrepreneurial Spirit is Transforming the Public Sector*, Reading, MA: Addison-Wesley Publishing Company, Inc.

Rodal, A. and N. Mulder (1993) "Partnerships, Devolution and Power-sharing: Issues and Implications for Management," *Optimum, The Journal of Public Sector Management*, 24: 27-48.

Saundry, R. and P. Turnbull (1997) "Private Profit, Public Loss: The Financial and Economic Performance of U.K. Ports," *Maritime Policy and Management*, 24: 319-334.

Shashikumar, N. (1998) "The Indian Port Privatization Model: A Critique," *Transportation Journal*, 37 (3): 35-48.

Song, D.-W. (2002) "Regional Container Port Competition and Co-operation: The Case of Hong Kong and South China," *Journal of Transport Geography*, 10, 99-110.

Song, D.-W. and K.P.B. Cullinane (2001) "Port Privatisation: A New Paradigm of Port Policy," in *Ocean Yearbook 16*, E. Mann Borgese, A. Chircop and M. McConnell (eds), University of Chicago Press, Chicago, 398-420.

Sternberg, E. (1998) *Corporate Governance: Accountability in the Marketplace*, London: The Institute of Economic Affairs.

Thomas, B.J. (1994) "The Privatization of United Kingdom Seaports," *Maritime Policy and Management*, 21: 135-148.

Transport Canada (2004) *Port Programs and Divestiture*. www.tc.gc.ca/programs/ports/

Valentine, V. F. and R. Gray (2001) "The Measurement of Port Efficiency Using Data Envelopment Analysis," Presentation to the World Conference on Transport Research, Seoul, Korea, July.

World Bank (undated) *World Bank Port Reform Toolkit*, www.worldbank.org/transport/ports/toolkit/