COMPETITIVENESS OF VANCOUVER'S CRUISE TERMINALS

by

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Abstract

This report investigates how the legislative framework surrounding the port system impacts the competitiveness of Vancouver's Cruise terminals. The literature suggests that the legislative framework, primarily the *Canada Marine Act,* impacts ports through three avenues: governance, infrastructure investments, and funding and taxation environments. Using a combination of literature, financial data and interviews, this study considers three hypotheses to explain why Vancouver's cruise terminals are losing market share. It has found that Vancouver's competitive position is being impacted by an interaction of governance, taxation and market conditions. Suggesting that the legislative framework has similar impacts on all Canadian ports, an option designed to increase local autonomy, reduce political involvement and create more synthesis with market conditions is recommended.

Key Words

Cruise terminal; port competitiveness; port governance

Executive Summary

Context and Purpose

The port industry is a vital portal for Canadian overseas trade. Ports play a strong role in the Canadian economy from coast to coast. Over the past five years, the Vancouver cruise sector has experienced a rapid decline. This study is designed to investigate the question, why does Vancouver continue to lose business to Seattle?

Methodology

Using a combination of literature review, financial data and elite interviews, this study tests three hypotheses:

1. The loss of market share experienced in the Vancouver cruise sector is a consequence of market conditions resulting from a shift in technology such that Vancouver Port Authority no longer had a monopoly in the seven day round trip Alaska cruise market.

2. The current legislative framework surrounding port authorities, including the Canada Marine Act, constrains the ability of the Vancouver Port Authority to recover costs of investments to their cruise terminals, restricting the ability to be competitive with Seattle.

3. The current governance structure of port authorities inhibits the ability to compete with ports controlled at a local or regional level, as is the case in the United States of America.

For the purpose of this study, percentage of market share is used as an inclusive output measure of competitiveness.

Results

The data indicates that the financial restrictions studied do not have a direct impact on the port competitiveness. It is possible that there are indirect impacts that were not measured in this study. The governing system does impact competitiveness through several avenues: it creates a disadvantageous taxation environment, presents barriers to effectively capturing returns on investment, and is not always responsive to market needs. These factors on their own did not negatively affect the cruise sector when Vancouver dominated the market. When Seattle entered the market with the advantage of subsidies and taxation power, the governance factors identified contributed to the ongoing decline in competitiveness.

Recommendations

After considering a series of options, and evaluating them based on how they fit within the National Marine Policy, as well as for effectiveness, social costs, political and stakeholder feasibility, this report recommends action be taken to reduce the discrepancy between market and public goals.

This should be done by shifting to a corporate model with up to 49 percent shares in the port publicly traded. Ports will operate as for-profit corporations with the other 51percent of shares held by the federal government or a combination of local and federal governments. This option will provide greater market influence and accountability on port operations, and reduce the discrepancy between internal governance and objectives. It should help to simplify the public/private paradox by clarifying expectations and goals.

Corporatizing ports involves partial privatization of the industry. If the government chooses not to pursue privatization in this manner, it would never the less be advisable to pursue increased decentralization of port authorities. This would include amending the Canada Marine Act to allow the board to be appointed directly by the user groups; provide ports the authority to dispose of and acquire lands without federal approval; and remove the borrowing limits to incorporate greater commercial discipline. This action will not address the taxation impacts nor provide more opportunity to capture benefits from added investment. It will however, bring the structure more inline with the stated market oriented goals, increasing internal consistency and competitiveness, dealing with one of the identified issues.

Dedication

To my family, for knowing that I could do this, even when I was not convinced.

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1 Introduction

Canada is a trading nation. In 2004 Canada exported over $429 billion worth of goods, (Statscan, 2005a) while importing over $363 billion (Statscan, 2005b). A substantial portion of imports and exports are transported through Canada's national port system. In 2002 marine transport carried 68.1 percent of all overseas exports and 41.2 percent of all overseas imports. Additionally, marine transport accounted for the transportation of 2.6 percent of all trans-border trade with the US (National Marine and Industrial Council Secretariat (NMICS), 2004, p. 10).

Given Canada's status as a trading nation, and the extent of overseas trade facilitated by the ports system, it is in the interest of Canadian and provincial governments to ensure that Canada's ports remain competitive. The development of the inland transportation system, specifically road and rail, across the continent, has meant that goods can enter Canadian markets through either US or Canadian ports, and be transported to their consumption centres on land. This is particularly true of the container sector, which accounts for a growing share of all goods transported.

Current trends within the marine shipping industry include heightened security concerns, increasingly larger ships with fewer ports of call, urban pressure on suitable port land, and increasing subsidization of some of Canada's nearest competitors. These trends are raising questions about the ability of Canadian ports to continue to remain competitive within the current policy framework. Stakeholders have suggested that the current policy and legislative framework impedes competitiveness.

The port industry in Canada varies by type of cargo handled as well as external factors that impact competitiveness. These factors are further discussed in chapter two. The port industry is a very competitive industry. Much of the data required to study ports is restricted or protected under confidentiality agreements. For this reason, this report is focused on the Vancouver Port Authority. As Canada's largest port, the port of Vancouver facilitates the movement of goods and people through a number of separate terminals within eight municipalities. Similar to the industry as a whole, at the port authority level there are numerous barriers to accessing data, particularly in the more competitively sensitive sectors such as container. To increase the amount of usable data available, this report focuses on how the cruise sector of the Vancouver Port Authority has been impacted by aspects of the *Canada Marine Act.*

When compared to the port authority as a whole, the Vancouver cruise sector has similar financial needs, although they differ in revenues. For the Vancouver Port Authority, every dollar invested in port assets earns a 20% return. However, assets invested in the cruise sector earn only a 10% return. Cruise is a weak sector in the port and thus is more sensitive to the impacts of the legislative framework. It is used here as 'the canary in the mine'; a sensitive indicator for impacts of the legislation on the port authority as a whole. Informants in the cruise sector, when interviewed, confirmed that this is an accurate characterization of the cruise sector. (L. Sawrenko, personal interview, February 21, 2006; R. Fitzgerald, personal interview, February 28, 2006).

1.1 Policy Problem

The issue is that the port of Vancouver continues to lose cruise traffic to the port of Seattle, and it is important to understand why this is the case. The policy problem is ensuring that the Vancouver Port Authority remains competitive and that the legislative framework fosters competitiveness.

In 1995, the federal government devised a new port strategy, the National Marine Policy, which laid the groundwork for the consolidation and commercialization of the port industry. As part of that process, Transport Canada heard stakeholder submissions regarding factors that influence port competitiveness. In 1998, the federal government legislated the changes to the industry by passing the *Canada Marine Act.* The nineteen ports considered most vital to the economy and financially stable became Canadian Port Authorities (CPA's). Together they make up the national port system. The legislation established port authorities as non-profit corporations, reduced the levels of federal oversight of ports, divested smaller ports and brought the remaining port authorities together under a single governing legislation.

In 2003, stakeholder consultation was again undertaken as part of a mandatory review of the *Canada Marine Act.* While the legislated changes had addressed some of the issues impacting the port industry, several of the stakeholder concerns had changed very little. Pre-existing concerns raised at the review included grants in lieu of taxes, access to capital, governing structure and local autonomy.

In addition to pre-existing concerns, the stakeholders identified new concerns resulting from the *Canada Marine Act.* Predominant among these is the apparent contradiction among goals within the National Marine Policy (NMP) and *Canada Marine Act* (CMA). They assert that the goals of improving the competitiveness of Canada's ports by operating in a commercialized manner; meeting regional, local and national goals; and harmonizing standards with those of Canada's trading partners to compete on a level playing field are in conflict with each other.

During meetings with port officials, the following have been identified as factors contributing to the acknowledged problem:

1. Ports will invest in higher yield cargo facilities if they make investment decisions based on purely commercial criteria.

2. Ports invest in the cruise sector primarily for the benefits to the local and regional economy.

3. Vancouver's cruise sector competes directly with the Port of Seattle for passengers in the Alaska Cruise market. In contrast to Vancouver, the port of Seattle is a taxing authority, and receives substantial federal subsidies, allowing them to charge lower fees.

It has been said that unless the port authority is governed by conflicting goals, it will not be fulfilling its mandate (R. Fitzgerald, personal interview, February 28, 2006). On the other hand, the competitive health of Canada's ports may be at risk. Examination of the Vancouver Port Authority cruise sector will try to answer the question: Why does Vancouver continue to lose business to Seattle? It is expected that this research will contribute to a body of knowledge that can answer the larger question: is the Vancouver cruise sector at a competitive disadvantage as a result of the way the *Canada Marine Act* has been designed?

1.2 Overview of Study

This study is organized into eight chapters. The first chapter introduces the problem and study. The second chapter provides background information on the public port system in Canada, including policy history and the factors that impact port competitiveness. The third chapter provides the details of the study. Chapter 4 provides the literature, financial data and interview results. Chapter 5 provides an analysis of the data and its implications for improving competitiveness. Chapter 6 outlines the options for improving competitiveness and the analytical framework by which they are evaluated. Chapter 7 provides the evaluation and chapter 8 presents the resulting recommendations and conclusions.

2 Background

This chapter frames the policy problem within the historical and competitive context. It begins with an overview of how marine transportation policy has progressed over time. It then provides an overview of factors that affect the competitiveness of ports generally and the competitiveness of cruise terminals specifically.

2.1 Policy History

In Canada, public port authorities are independent commercial entities that generate income on behalf of the federal crown. This philosophy toward ports and transportation infrastructure dates back to the MacPherson Commission in 1961.

Historically, transportation policy in Canada has been a part of nation-building policy. Over time, transportation policy has shifted from an orientation towards unifying the country and reaching national objectives, towards facilitating economic activity (Heaver &Waters, 2004, p. 1). Early transport policy focused predominantly on railroads. As technology changed, other modes, including national highways, ports and airports, were brought into the transport policy umbrella.

2.1.1 Early Marine Transport Policy

The *British North America Act* of 1867 gave control over navigation and shipping to the federal government. In 1868 the Department of Marine and Fisheries was established and given responsibility for ports, harbours, piers, wharves, the harbour master and harbour commissioners (Sherman, n.d., p. 6). In 1936, the *National Harbours Board Act* established the National Harbours Board, a crown corporation responsible for conducting commercial and service operations for Canada's biggest ports (Port de Quebec, n.d.). The national harbours board system was one of centralized command and control structure intended to standardize ports across the country. There were no allowances for local differentiation and the system quickly became fragmented (Brooks, 2004, p. 177).

2.1.2 The MacPherson Commission

The MacPherson Royal Commission on Transportation (RCOT) was set up in 1959 to review issues in rail transportation. The Commission found that Canadian Transportation policy grew out of two main concerns: the need to move people and goods across the vast country, and fears that the railway could abuse its power as Canada's primary, and in many parts only, system of mass transport (Royal Commission on Transportation, (RCOT) v1, 1961, p. 2). Several trends post-WWII had changed the environment of transportation: the growth of the manufacturing industry increased demand for short haul transport; the automobile and technological advances in trucking, and growth of aviation provided competition for the railway sector; and the degraded condition of the railways after the demands of the war. The commission recommended that the state provide assistance to rail in sectors where, due to historical, traditional or legal obligations, the railways were unable to make sufficient revenues to justify the service. There goal was to have neither shippers, passengers or the rail lines face undue burden in the adjustment to transport competition. The commission recognised that these national goals were not sustainable, and that this assistance should be only to help in the period of adjustment (RCOT v1, 1961, p. 26).

The second volume of the MacPherson Commission report focused on specific problems, including the role of transportation in national policy. The Commission was concerned about the market distortions caused by the differential regulation imposed on the rail sector, however, they were also concerned with the impacts of deregulation on various parts of the country. The predominant outcome of the Commission was movement towards deregulation of railways, although the Commission stated greater competition and deregulation as a desirable state for transportation policy more broadly. This is when Canada first began to separate national policy from national transportation policy. National policy continues to be concerned with broad social and economic goals, and national transportation policy is concerned only with creating an efficient transportation system (Heaver & Waters, 2004, p. 4).

The transportation sector has been moving towards a greater emphasis on economic competition since that point. The MacPherson Report eventually led to the 1967 *National Transportation Act*, which included free competition between modes; fair proportion among modes of costs and services borne by public expense; and compensation for services provided in the public interest; among its key principles (Gratwick, 2001, p. 3).

2.1.3 National Marine Policy

The *Canada Ports Corporation Act* of 1983 was the first time that provisions were made to devolve responsibility for ports (Heaver & Waters, 2004, p. 11). Rather than administrating all ports directly from Ottawa, the Act created the Canada Port Corporation (CPC) to oversee six Local Port Corporations (LPC's) and seven smaller divisional ports. The LPC's were eligible to borrow from private financial institutions and the federal government (Baltazar & Brooks, n.d., p. 10). The CPC had broad authority to act for the purpose of national interest. LPC's enjoyed increased autonomy, and were mainly financially self-sufficient crown corporations. They were subject to the federal *Financial Administration Act*, paid grants in lieu of taxes to the local municipality, and dividends to the federal government. They had to obtain approval for board appointments, by-laws, certain leases and contracts from the CPC, as well as pay for CPC police and a portion of the CPC's expenses (SCOT, 1995).

At that time, the national public port system was divided into the Canada Port Corporation (which included the local port corporations and centrally administered divisional ports), semi-autonomous harbour commissions, and smaller commercial ports administered by Transport Canada (Ircha, 2001, p. 6). Each of these three divisions were regulated under different acts, all of the enabling acts contained the same statement of the national port policy at the time.

> "It directs all the ports to work towards a national ports system that: contributes to the achievement of Canada's international trade objectives as well as national, regional and local economic, and social objectives; is efficient; provides port users with assessable and equitable transportation services; and is coordinated with other marine activities and surface and air transportation systems" (Standing Committee on Transportation (SCOT), 1995, The current ports structure section, para. 10).

Neither the smaller commercial ports nor the harbour commissions were subject to municipal taxation, and both were eligible for subsidies. Those ports operating under the CPC were only eligible for capital grants. The marine policy in place created a situation where commercial ports were competing against smaller Canadian ports that were highly subsidized (SCOT, 1995).

In 1994, the House of Commons Standing Committee on Transport (SCOT) made recommendations leading to the 1995 National Marine Policy, and the 1998 *Canada Marine Act*. One of the goals of the 1995 National Marine Policy (NMP) was to shift the cost burden from the tax payer to the user while providing for, among other things, fair competition based on transparent rules applied consistently across the marine transport system (Transport Canada, 1995, p. 3). Under the NMP, ports would not be eligible for government funding, and commercial lenders would determine what debt load qualified as manageable (pg 13). Ports were divided into three categories: Canadian Port Authorities, local/regional ports, and remote ports, with Transport Canada maintaining direct control over remote ports to ensure the continuance of essential services.

Under the accompanying 1998 legislation, the *Canada Marine Act*, key objectives were to:

a) Implement a national marine policy that will support the achievement of local, regional and national social and economic objectives, and promote and safeguard competitive and trade objectives;
b) Base infrastructure and services on international practices and consistent with those of major trade partners;
c) Satisfy user needs at reasonable user costs;
d) Provide a high level of safety and environmental protection;
e) Provide a high degree of autonomy to meet local needs and priorities;
f) Manage marine infrastructure in a commercial manner
g) Provide for the divesture of certain ports
h) Coordinate with marine, surface and air transportation

At the time the Act was passed, the port corporations that were already operating in a near commercial manner and were considered vital to trade, including Vancouver, were designated Canadian Port Authorities (CPA's). This set the stage for a national ports system. The national port system, as well as northern ports that were vital to remote communities, remained under federal jurisdiction. All other ports and harbours either were upgraded to Canadian Port Authorities, or divested to provincial, municipal or private interests.

After the passage of the CMA, all port operations and investments were to be based on standard commercial practices. As a result, funding must come from either operating revenues or loans from private financial lenders. Unlike under the *Canada Port Corporations Act*, the Crown will not back loans, and federal real property cannot be used to secure the loans.

Another aspect of the national marine policy is that ports must provide a return on previous taxpayer investment. In addition to ports now being solely responsible for operating expenses, upgrades and expansion of facilities, they have the added cost of compensating for past tax payer financed facilities. All CPA ports pay an annual stipend based on their gross revenue. The formula for calculating the charge is included individually in the authorizing letters patent for each port. There is no maximum on these payments, there is no balance to repay, and the annual payments will continue as long as the port is in operation.

2.1.4 Canada Marine Act Review

The *Canada Marine Act* contained a provision that it be reviewed after five years. In 2002, Transport Canada initiated the review and it was completed in 2003. The mandate was only to review the provisions and operations of the Act, not to review the overall objectives of the Act. The review panel held stakeholder consultations in 11 cities across Canada, received more than 140 written briefs and heard over 75 presentations (Transport Canada, 2003, p. 12). The CMA review committee reported the submission of some stakeholders that "one objective of the 1995 National Marine Policy, *-shift the financial burden for marine transportation from the Canadian taxpayer to the user-* is incompatible with the ultimate goals of the CMA." (p.14) Further, the panel agreed with stakeholders that there was a need for the Canadian government to foster the development of infrastructure to achieve the objectives of the CMA (pg. 14).

In the final report, the panel made two general recommendations regarding the national port system, and 17 recommendations specific to the Canada Port Authorities. There were several other recommendations regarding the other sectors governed by the CMA, including the St. Lawrence Seaway, smaller public ports, pilotage, and ferries, which are not relevant to this report. In addition to the recommendations, the review panel included a section of observations that, while outside the mandate of the panel, were raised by a majority of stakeholder submissions. Those recommendations and observations most relevant to this report are mentioned below[1]. The review panel only examined the port system at the port authority level, thus there are no recommendations specific to the cruise sector.

The general recommendations called for direct recognition in the preamble to the CMA of the historical and current significance of marine transportation to the country. They also recommended amending the act to provide for a review of the legislation every five years.

The first recommendation specific to the CPA's was that the federal government make investments in CPA infrastructure, where there is a strong business case, and the appropriate government department has approved the investment. They also recommended clarifying the Act to allow CPA's to be eligible for government programs open to other Canadian companies; and simplifying the process to apply for increases in borrowing limits.

Recommendation 5.4 was that the federal government consider alternative financing arrangements such as tax exempt bonds similar to those used in the U.S. Next, the panel

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[1] A complete list of recommendations and observations made by the panel can be found in The Canada Marine Act Review, at http://www.tc.gc.ca/pol/en/Report/tp1407b/tp1407b.pdf

recommended that the stipend be calculated as a percentage of net income, rather than gross revenue. It also recommended that the federal government make the payments in lieu of taxes for the port lands it owns, similar to what it does in the Saint Lawrence waterway. It also recommended that the CMA exclude lease payments from the definition of fees, in keeping with the then recent Federal Court of Appeal ruling. The next four recommendations are all related to improving the process for purchasing, disposing of, and exchanging federal real property, and directing proceeds from sales towards future port investments.

The panel made two recommendations regarding the governance of CPA's. The first was that the minister be required to nominate board members from the list of nominees recommended by the appointment committee. They also recommended amending the CMA to allow persons who are directors, officers or employees within the user community to sit on the board, to ensure that experienced individuals are appointed to the board.

Among the observations included by the review panel is the need for the Canadian Government to make a clear commitment to promoting and recognising the marine transportations system within the Canada Transportation Act.

2.2 Port Competitiveness

> "Ports are complex commercial and logistical entities that, fundamentally, are the interface between sea and land transport." (Charles River Associates, 2002, p. 2)

To understand how the legislative framework can impact port competitiveness, it is necessary to discuss competitiveness and the variety of factors that affect it. Port competitiveness in the North American context is a large and complicated issue. The list of factors that dictate and impact the competitiveness of ports is long and varied; it includes geographic factors such as natural deep sea ports, inland waterways and mountain passes; factors related to commercial and business management; as well as factors driven by public policy including port governance, financing structures, and taxation.

Within a single port there are several terminals that can specialize in a variety of transport, including containers, bulk, break bulk, liquid bulk, roll on/roll off and cruise. While there are commonalities in what makes each of these sectors competitive, there are also important differences making it difficult to determine or assign a single solution. For example, all port uses require ship access and waterfront lands for their operations. In this way, they share common competitive factors such as cost of property tax, labour, and pressure on land base. Some of these industries have greater ties to land based transportation, for example, containers, as well as bulk and breakbulk goods require a network of roads and rail to move goods from the port to the hinterlands, and back. Issues such as congestion and transfer time weigh heavily on the competitiveness of these industries. In contrast, the cruise sector is more strongly tied to air travel, with the cost of airfare to the port city, as well as transportation between the port and airport among other things, affecting the desirability of a port as a homeport for cruises.

In 2002 IBI group did a study for the Association of Canadian Port Authorities to examine how the competitiveness of Canadian port system compares with US port system in relation to the following areas:

- Port governance and regulatory framework
- Past and future port infrastructure investment
- Funding and taxation environment

This overview found that Canada's ports are more highly centralized and characterized by delays in approving port development. This is in contrast to US ports, which are entities of state or local governments, having no direct involvement on the part of the federal government. US ports are publicly supported for serving the public interest and enjoy more financial and administrative autonomy than Canadian ports. This study also noted that the differential access to public funds is accentuated by trends in shipping, including the movement towards larger ships, containers and fewer larger ports. Because the US port system has greater ability to respond to market needs, due to both their decentralized governance and their more flexible funding mechanisms, the Canadian port system is at risk (IBI group, 2002).

2.2.1 Factors Impacting the Competitiveness of Ports in General

On the west coast of North America, ports compete primarily to carry goods imported from Asia into the rest of the country. Many different factors influence the relative competitiveness of any given port. This section will provide a brief description of the major factors that impact ports, several of these apply to the transport of goods rather than people. The subsequent section will provide more detail and elaboration on aspects that impact the competitiveness of cruise terminals specifically.

2.2.1.1 In-Land Transport

Inland transport includes rail and road networks, competition between domestic and US ports is due in part to the integration of the continental transportation network (Ircha, 2001a, p.

125). These networks are instrumental in moving goods between the port and their destination markets, and conversely from production and extraction centres to the port for export. There are several important aspects of in-land transportation that effect port competitiveness. Congestion and capacity of both roadways and rail has a large impact on the timing of good transportation, particularly for ports such as Vancouver that are located in urban areas.

Consolidation of rail networks is a current trend that can influence competitiveness as well. Where there are a limited number of rail carriers servicing a port, there is a danger that further consolidation of the major networks will lead to an effective monopoly. If a single carrier is left to service the port, prices may increase and the cost will be passed on to shippers. For the purposes of this study, I will also include geographical factors such as distance to major markets and mountain passes as a component of in-land transportation rather than include it as its own category, as it has relatively little impact on the cruise sector.

2.2.1.2 Supply Chain Management

Supply chain management refers to the ability of the port to get goods off the ships and out to the markets in a fast and efficient way. It includes factors such as number of ships that can be accommodated at any given time, turn around times, number of cranes on the wharf, lift rates, storage capacity, size of the truck gates, degree of computerization and ability to check and track cargo by computer, and capacity of the rail terminals.

2.2.1.3 Financing

Aspects such as the weighted average cost of capital, types of available financial resources, and risk of capture of investment impact the ability of Canadian ports to compete with those in the U.S.A. The cost of expanding to meet market demands and improve service quality of ports is funded through a variety of different mechanisms in the US and Canada. These include operating revenues and net income, general obligation bonds, revenue bonds, loans, grants and other revenues.

2.2.1.4 Taxation

The type of taxes paid by ports varies by jurisdiction. As non-profit entities, CPA ports are not required to pay corporate taxes. Canadian ports that are agents of the government do not pay municipal property taxes, although they do make Payments in Lieu of Taxes (PILT's) and private operators that lease government lands for port operations may pay property taxes. In contrast, some jurisdictions in the US port authorities are also tax authorities with the ability to levy taxes on the surrounding community in order to fund operations or expansion. The assessment and valuation of port lands for tax purposes has also been identified as a factor of port competitiveness.

2.2.1.5 Security

Security has become a high cost necessity for port operations. Border security in particular has become a high priority concern for cross continental traffic. In the US there is clear policy regarding who is responsible for funding and initiating improvements to port security. There is not the same kind of clarity in the Canadian policy structure. The 2002 *Public Safety Act* provided some relief to port concerns regarding cost of security by amending the 1994 *Marine Transportation Security Act*. This allowed the federal government to enter into agreements to make contributions or grants with respect to marine security. This amendment, however, has a three-year sunset clause and will no longer be in effect as of 2007.

2.2.1.6 Labour Costs

Costs of labour are largely attributable to the labour required to operate the port terminals. The port labour force is mainly comprised of members of the International Warehouse and Longshore Union (IWLU). A report in 2001 found that Canadian ports have a competitive advantage in terms of labour costs, but that this could change (Perrin, Thorau & Associates, 2001).

2.2.1.7 Perceived Stability

In order for business to be comfortable investing in an area they have to consider it stable. Factors that influence regional stability include the political, business and labour climates. Included in the political climate are factors such as stable government and First Nations claims. Stability in the business climate predominately hinges on the regularity of the taxation regime and being able to forecast costs of doing business with relative certainty.

2.2.2 Factors Impacting Cruise Terminal Competitiveness

Port authorities are the commonly examined competitive unit, however, an examination of port competitiveness suggests that truly effective competition will see port terminals as the focus of competitive strategy (Winkelmans, 2003). Within a port authority, terminals compete amongst each other for funding and service upgrades. Because there is so much variation in the type of transport terminals facilitate, and the market conditions that affect them, terminals not only compete for funds, but can also be converted to other, higher revenue generating uses.

Cruise terminals are impacted by many of the general factors discussed above. They are less constrained by in-land transport than cargo terminals, however transportation coordination, particularly with air transport, but also road and rail, does impact cruise terminals. Passengers must be able to get from their own home regions to the cruise homeport, as well as be able to access the cruise terminal. Stability and labour costs also play an important, but lesser role in cruise terminal competitiveness. The following section outlines additional competitive factors specific to the cruise sector.

2.2.2.1 Customs and Security

The ability to clear passengers through customs quickly and efficiently with little inconvenience to the passenger increases the desirability of a homeport to foreign travellers. This is particularly important to the Vancouver Port Authority, as a large percentage of consumers of the Vancouver -Alaska cruise are American travellers.

2.2.2.2 Links to Airport

The predominant mode of transportation to and from the cruise homeport is air travel, although trends indicate that post-2001, more passengers prefer to cruise through ports close to their own home. In April of 2005, the VPA entered into a streamlined customs arrangement with the Vancouver airport, allowing cruise passengers to be processed and transferred directly between the plane and ship. The Director of Finance at the Vancouver Port Authority identified air access as one of the four most important factors impacting cruise competitiveness (L. Sawrenko, personal interview, February 21, 2006).

2.2.2.3 Financing

The aspects of port financing described in the previous section apply to the cruise sector as well. Additionally, CPA's are not required to project finance. This allows the authority to borrow funds at a rate based on overall security of the authority to repay the loan, allowing cruise terminal expansion to be financed at a lower rate. This also reduces the direct link between market forces and terminal expansion.

2.2.2.4 Taxation

In Canada, the cruise terminals only operate for five to six months out of the year. As a result, even where operations are contracted out, the Port Authority under the *Payments in Lieu of Tax Act* compensates municipalities for the provision of services. Under regulation 3(1)(1.e) the terminal operator lessee is responsible for paying property taxes if they are in occupation 12 months of the year. Municipal tax support is another variable that was identified as a one of the four key factors impacting cruise competitiveness (L. Sawrenko, personal interview, February 21, 2006).

2.2.2.5 Stipend

The stipend is a gross revenue charge paid by Canadian Port Authorities based on a formula included in their authorizing letters patent. The port authority must pay a percentage of gross revenue to the federal government in order to maintain their letters patent in good standing. For larger ports, such as the VPA, the stipend does not make a large impact on their finances. Smaller ports have argued that the loss to the gross revenue charge is a barrier to their growth.

2.2.2.6 Technological Changes

Changes in technology and innovation can affect the way things are done in an industry as well as what players are able to compete. This is true of the cruise sector as well. Prior to 1999, the Vancouver Port Authority was the only homeport for the seven-day-round-trip Alaska cruise market. The seven-day-round-trip cruise is the most popular option in the Alaska cruise. Advances in technology allowed the port of Seattle to compensate for the greater geographic distance with smaller, faster cruise ships. By investing in new cruise terminal facilities, Seattle was able to capture a portion of the market that had previously gone to Vancouver.

2.2.2.7 Ability to Capture Benefits

Large portions of the economic benefits stemming from cruise traffic are accrued in service industries utilized by cruise passengers. The port covers operating costs from the cruise terminals with operating revenues, but does not earn profits to reinvest in new facilities or cover overhead costs. The extent that the port is able to capture the benefits of ancillary services supports the ability to remain price and service competitive with other providers. For example, in some jurisdictions, ports can fund the expansion of facilities using profits from hotel or entertainment facilities.

3 Purpose and Methodology

3.1 Purpose of Study

There are three major barriers to effectively studying and quantifying public port competitiveness. First, as discussed in the background material, competitiveness of the port industry is complex and diverse. Goods and people transported through ports cannot all be aggregated into a common measure of capacity. Further, the different sectors of the port industry compete in different markets. One may be competitive, while another is not, but aggregation would not expose this fact.

Second, due to the highly competitive nature of some port industries, container terminals in particular, the data is heavily guarded and not available. There is a dearth of available data to attempt to better quantify and measure port competitiveness. This issue is noted in both the review of the *Canada Transport Act* and the *Canada Marine Act*, and there have been several recommendations to improve the state of data in this field.

Third, while market competition is a highly developed concept in economic theory, there continues to be some difficulty in integrating its principles with those of a public enterprise. Consider the remarks of Fleming and Baird (1999) in their examination of the experiences of public port reform in Europe and America:

> "The mission of public ports goes beyond efficiencies, healthy 'bottom lines' and cost effectiveness. Notably, the public expects the generation of local and regional jobs and income, increase trade and, no least, the preservation of often-fragile physical and cultural waterfront environments." (p. 390)

This study will consider how the goals and implementation of the National Marine Policy have impacted cruise terminal competitiveness. Given the deficiency of functional data and appropriate models to work within, this study attempts to do so relying primarily on industry expertise, industry data and an analysis of the relevant literature. It considers the goals of the CMA and NMP, and how they translate into practice for the ports. The following hypotheses are tested:

1. The loss of market share experienced in the Vancouver cruise sector is a consequence of market conditions resulting from a shift in technology such that Vancouver Port authority no longer had a monopoly in the seven-day-round-trip Alaska cruise market.

2. The current legislative framework surrounding port authorities, including the Canada Marine Act, places constraints on the ability of the Vancouver Port Authority to recover costs of investments to their cruise terminals, restricting the ability to be competitive with Seattle.

3. The current governance structure of port authorities, including the VPA, inhibits the ability to compete with ports controlled at a local or regional level, as is the case in the United States of America.

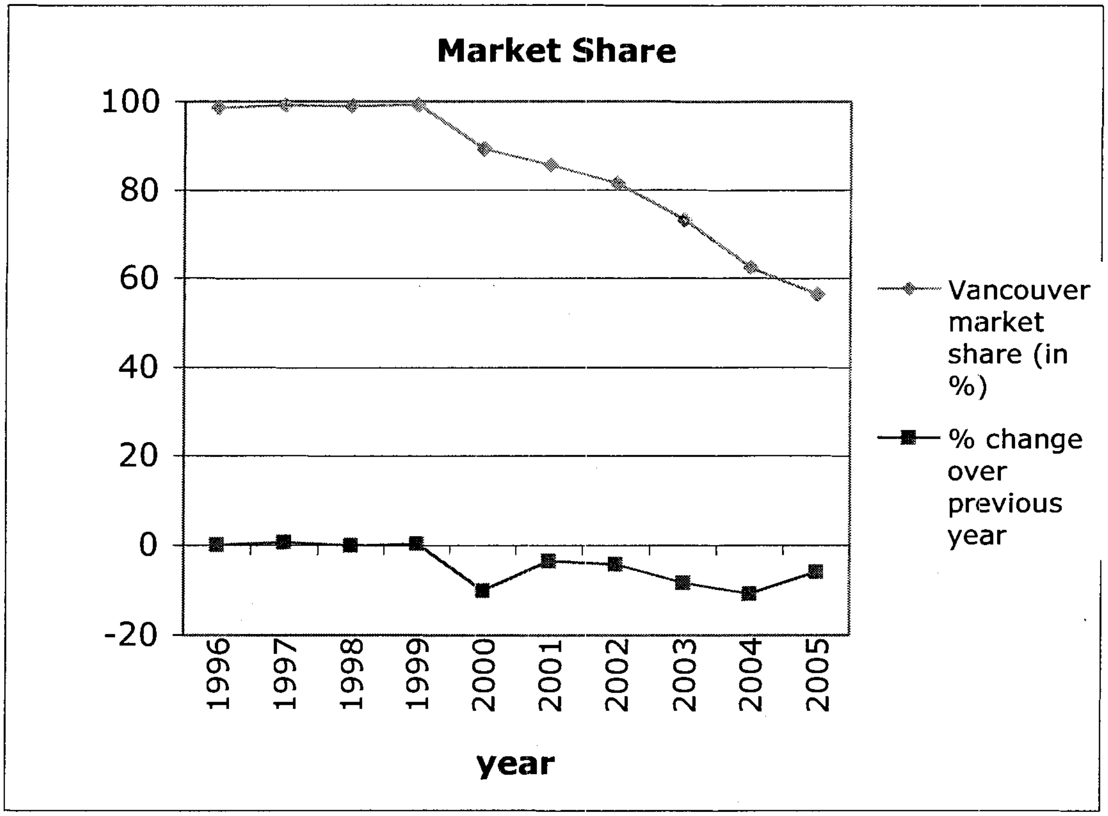
3.2 Variables

For each of the three hypotheses to be tested, the dependant variable is **competitiveness**, as indicated by the captured market share. Cost competitiveness is a commonly used measure of industry competitiveness, however, it cannot be used here because there is no comparable data between competitors. Further, cost competitiveness cannot be separated from other inputs to competitiveness. Cost competitiveness will not reflect differences in port attributes, such as proximity to the airport, quality of service or desirability of the homeport city as a destination. Market share is an output measure dependent on many factors of competitiveness. As such, it is better able to indicate when these other impacts are affecting choice of homeport.

As there are only two competitors in the market, Vancouver and Seattle, the market is the total number of passengers travelling from Vancouver and Seattle. Competitiveness is measured as the percentage of that market captured by Vancouver's cruise sector.

Figure 1 below shows the dependent variable, as well as the rate of change year over year. The graph clearly demonstrates that Vancouver has lost a significant market share since 1999. Two major events happened around 1999 that could possibly explain this shift. In 1999, the port of Vancouver became one of the first three Canadian Port Authorities under the CMA. In addition, in time for the 2000 cruise season, the port of Seattle completed the first phase of renovations on their Bell Street Cruise Terminal and opened it for business. The graph also shows a second steep loss in 2004 not associated with either of these occurrences.

Figure 1 Market share measure of competitiveness



Source: Vancouver Port Authority website, cruise statistics; Seattle Port website, cruise statistics

To test the first hypothesis, that the decline in the cruise sector is the result of a market shifts, this study will examine the change in system capacity, the shift from monopoly to competition in the Alaska sector, and external factors such as the exchange rate. These are measured by the following independent variables:

Number of competitors involved in the market. This hypothesis is testing if the main factor impacting Vancouver's market share is the shift from monopoly (zero competitors) to competitions (one or more competitors).

Capacity of the Vancouver cruise terminals to accommodate cruise ships. The maximum number of ships that can be berthed during the peak (Friday through Monday) at VPA cruise terminals indicates whether the port is able to accommodate increase demand. Higher capacity indicates the ability to compete. The number of berths available for the weekend market was identified by one of the interviewees as the most important input factor in cruise competitiveness (L. Sawrenko, personal interview, February 21, 2006).

Capacity of Competitor is the maximum number of ships that can be berthed during the peak (Friday through Monday) at competitor port. This will indicate the ability of competitors to absorb more of the market growth, and increase their competitiveness.

The **exchange rate** is a factor in cruise passenger decision to travel through the US. The Vancouver cruise sector has benefited from the low Canadian dollar drawing American customers into Vancouver. The higher the exchange rate, the less competitive Canadian ports will be.

Table 1 Summary of variables in hypothesis one

Hypothesis 1 - The loss of market share experienced in the Vancouver cruise sector is a consequence of market conditions resulting from a shift in technology such that Vancouver Port authority no longer had a monopoly in the seven-day-round-trip Alaska cruise market.				
↑	Number of competitors	→	↓	competitiveness
↑	Capacity	→	↑	competitiveness
↑	Competitor capacity	→	↓	competitiveness
↑	Exchange rate	→	↓	competitiveness

To test the second hypothesis, that the CMA constrains the ability to recover costs, this study examines operating income, non-operating income and commercial borrowing, as well as the costs of doing business. The following variables are investigated:

Operating income is a calculation of operating revenue – operating costs. This variable indicates the general financial health of the business. For the purpose of this study, it is used to indicate the funds available for reinvestment. In addition, as the only available option for raising funds is to borrow against future revenue streams, it indicates potential of expected future revenue to available to secure loans. It is expected that higher operating income will increase competitiveness.

Operating Margin is a calculation of operating income divided by operating revenue. This variable indicates flexibility in setting prices; higher is better. Greater ability to change prices in response to changes in the market or changes in costs provides a buffer against risk. It is expected that higher operating margins increase competitiveness.

Debt load indicates whether the port is indeed allowing market mechanisms to determine the reasonable amount of debt incurred for a project. It is hypothesised that two aspects of the port structure; the lack of project based financing including the hierarchical nature of port organization, and the expectation of meeting local objectives; will prevent the anticipated relationship between financial indicators and debt load incurred.

The **stipend**, or gross revenue charge, is applied at the port authority level. Under the Canada Port Corporation, the ports paid dividends based on a net revenue formula, and the federal government was entitled to ask for funds to pay down federal debt. The CMA eliminated this "cash grab", but began calculating the payments to the federal government on a gross revenue basis. It is a drain on operating revenue that decreases the retained revenues for future borrowing and investment. A higher gross revenue charge is expected to decrease competitiveness.

Non-operating Revenue includes government subsidies and tax revenues, as well as revenues from ventures in non-port related activities such as leasing office space. In Canada, ports are prevented from investing in or operating non-port related operations. They may enter into business in port related businesses, such as retail and hotel, but there are statutory restrictions on when and how this can be done. US ports generally have the authority to enter into any type of business. This allows them to cross subsidize port ventures with profits from more lucrative ventures. It is expected that higher non-operating revenues will increase competitiveness.

Table 2 Summary of variables in hypothesis two

Hypothesis 2 - The current legislative framework surrounding port authorities, including the Canada Marine Act, places constraints on the ability of the Vancouver Port Authority to recover costs of investments to their cruise terminals, restricting the ability to be competitive with Seattle.				
↑	Operating income	→	↑	competitiveness
↑	Operating margin	→	↑	competitiveness
↑	Debt	→	↓	competitiveness
↑	Stipend payment	→	↓	competitiveness
↑	Non-operating revenue	→	↑	competitiveness

To test the third hypothesis, that the governing structure restricts ports ability to compete, this study will examine the benefits to all levels of government of the current structure, how the structure impacts the ports ability to act, and the implications of this governing systems as indicated in other studies. It will investigate the following variables:

The cruise sector relies heavily on local amenities to sell itself as a tourist destination. The **relationship with the host municipalities** will indicate how well the governance structures of the CPA ports can work with a local government. Partnerships between the port and the city will improve the competitiveness of the port. In Seattle, the port is an entity of the municipal government, ensuring that their interests are integrally linked. This variable will be indicated using interviews with port staff.

Risk of capture is the proportion of the returns on investment going to the municipality rather than to the initial investor. This will be measured by the net direct contribution to the municipal government. That is the amount of payments in lieu of taxes. Payments in Lieu of Taxes, are included here because they are believed to be a product of the governance model. The influence of property taxes on competitiveness acts through financial means, but the level of property taxes applied is a result of the governance structure. It is the relative difference in taxation that impacts competitiveness. Greater risk of capture will decrease competitiveness.

Local autonomy allows the port to act and react to take advantage of local occurrences. Evidence of local autonomy includes having board members that represent local interests, and the ability to act on local occurrences in a timely manner. Greater local autonomy is expected to increase competitiveness.

Table 3 Summary of variables in hypothesis three

Hypothesis 3 - The current governance structure of port authorities, including the VPA, inhibits the ability to compete with ports controlled at a local or regional level, as is the case in the United States of America.				
↑	Relationship with host municipality	→	↑	competitiveness
↑	Risk of Capture	→	↓	competitiveness
↑	Local autonomy	→	↑	competitiveness

3.3 Data Sources

Data from the literature review comes from several key sources including government documents, searches of journal databases related to maritime economics and port management, and industry associations, including the American Association of Port Authorities and the Association of Canadian Port Authorities.

Data for the financial analysis comes predominately from the records of the port of Vancouver. Variables indicating factors outside the control of the port, including growth of GDP and exchange rates, were obtained from government of Canada.

Formal Interviews conducted with Greg Wirtz, manager Trade and Development, Cruise VPA; chair of Cruise BC; Larry Sawrenko, Director, Finance VPA; and Rob Fitzgerald, Director of Real Estate and Property Taxation.

Information was also obtained through informal telephone interviews with Gary LaRue the Executive Director at the Association of Canadian Port Authorities and Linda Doig, Real Estate Advisor at Public Works and Government Services Canada.

3.4 Methodology

As identified previously, the complexity in the field of port competitiveness and the absence of collectable data makes this a difficult area to study. The ideal, as stated by industry stakeholder and policy makers alike, would be to build a statistical model and derive explanatory coefficients. Doing so would provide quantitative evidence of what factors strongly and directly impact port competitiveness, allowing for efficient policy. Because this is not possible at this point in time, this author has had to be more creative in approach, using a combination of methods the help refine the state of understanding. There are several limitations this sort of approach, which will be identified later in this chapter. This study relies on three major methodologies to gather data and test hypotheses. Using interviews, literature reviews and news searches, and financial analysis, this study is attempting to verify the impacts of three proposed explanatory variables - financing, governance and market changes. As much as possible, information from one source is verified using one or both of the other sources to improve accuracy. Each of these components of the methodology is described in greater detail below.

3.4.1 Literature Review

There have been a number of studies of port competitiveness and the impacts of deregulation and commercialization in the last 20 years. This is attributed to the ideological shift towards greater privatization that began in the 1980's. The literature also provides an understanding of stakeholder needs and the state of port operations thanks to the plethora of documentation in this area stemming from the 2003 review of the *Canada Marine Act*. Finally, the literature provides examples of successful ports in other jurisdictions.

3.4.2 Financial Analysis Case Study

This report uses a case study of the Vancouver Port Authority (VPA) cruise terminals to investigate how, if at all, the current policy framework impacts port competitiveness. Trends in cruise financing are compared to those of the Port more broadly to test the validity of the cruise sector as representative of the port industry. Data regarding operating revenues, operating costs, property taxes paid, passenger totals, and financing costs were collected from the VPA records.

3.4.3 Elite Interviews

Elite interview with members of the port community, including the director of Real Estate (now director of Property Taxation), Director of Finance, and the manager Trade and Development, Cruise from the Vancouver Port Authority, serve multiple purposes in this report. They provide insight into operations that comes with experience, knowledge of how activities under the CMA can differ from what is on paper, and have provided some feedback on policy options.

3.5 Limitation of this Study

Due to data constraints and the parameters of this project, there are several limitations on this study that must be recognised. This project began as a broad attempt to study to competitiveness of Canadian Port Authorities, but encountered several obstacles preventing the collecting of required data. Despite the limitations, the report persisted with the topic because this is an area of public policy that has nation wide implications and lacks empirical study The specific limitations are with regard to two aspects – data and scope.

Data availability

Statistical modelling of the variables is limited in that the nature of the data only allows for descriptive statistics. It would be preferable to do more advanced modelling to better understand the extent of impacts. There are not enough individual cases, or records going back enough years to make use of these sorts of models. Information regarding the specific rates and returns to port operators are kept confidential under the terms of the operating contracts, making this data unavailable.

With limited resources data there are several variables that cannot be studied. Future study on the governance model including how much input the users have on who the minister appoints to represent them on board, as well as how and why certain board decisions are made, would increase understanding of why governance matters. An in-depth study of the relationships between cruise homeports and their host municipalities would also provide valuable information in this regard.

Finally, to make this study work, I had the opportunity to access data and employees from Canada's largest port. While this was significant and very helpful, it does provide a limitation to the generalizability. There is a strong possibility that smaller port authorities, having lower revenue streams and credit limits, are more sensitive to the financial impacts than are the largest ports. An examination of the competitive climate that Vancouver operates in may not reveal this.

Scope

This study has not had the opportunity to do an in-depth comparative analysis with other jurisdictions. Comparisons are made with Seattle, though these are limited in that the Seattle data does not permit historical comparison. Specific data that would have made for meaningful comparison may be available, but could not be collected in the given timeframe.

It was not possible to perform analysis on the entire country either. This is primarily due to the regional market differences as well as differences in the types of business ports do. This study has had to look at only one sector of one port. One of the advantages of Vancouver it is a homeport; cruises can start and end at the port of Vancouver. This means there are additional advantages to the host community, as a high proportion of passengers will stay in the homeport city prior to and following the cruise. Also, this cruise market, and that of its competitor, is easily identified, where several other Canadian ports that are involved cruise are ports of call, the stay is shorter and the port of call will have both substitutes and compliments that make the market harder to quantify. Finally, most other Canadian ports see a small amount of cruise traffic relative to the port of Vancouver.

Lastly, this report is focussed on only one of many port sectors. It would be valuable to be able to compare results across sectors, however it was not possible to do within this study. It is possible that cruise experiences the impacts from the legislation differently from other sectors, this will have to wait for future study.

4 Data

This chapter examines each of the three hypotheses individually. The chapter is organised by hypothesis, with each subsection beginning by developing the hypothesis further, then presenting the relevant data. The data under each hypothesis is organised by data source.

4.1 Hypothesis 1 – Market Competition

Hypothesis 1: This hypothesis states that the loss of market share experienced in the Vancouver cruise sector is a consequence of market conditions resulting from a shift in technology such that Vancouver Port authority lost its monopoly in the seven-day-round-trip Alaska cruise market.

Up until 1999 Vancouver held a monopoly over the seven day round trip cruise to Alaska, the largest segment of the Alaska cruise market. Although other ports, including Seattle and, to some extent San Francisco, had cruises to Alaska, none of them were able to fall within the seven day range due to geographical distance.

This hypothesis is supported by the fact that Seattle was able to capitalize on advancements in cruise ship technology for the 2000 cruise season, allowing them to compete in the same market segment as Vancouver. Seattle joined the market at a time when Vancouver was already booking cruises at their capacity. By this time Vancouver had already moved forward to expand to include the third berth at the Canada Place cruise terminal, on the premise that they held 99 percent of the market. The decline in market share is a result of the change in market characteristics, rather than an actual change in the competitiveness of the Vancouver cruise terminals.

4.1.1 Literature Review

Alaska is the primary destination for Vancouver's cruise market; Alaska is also the third most popular cruise destination worldwide, accounting for 8.3 percent of the total global cruise destinations (CLIA, 2005, p. 43). A 2005 report by the Cruise Lines International Association (CLIA) noted that the cruise sector in North America has remained strong, and has seen consecutive growth since the 1970's. They also noted several trends within the cruise sector. There has been a shift towards shorter cruises, the average length being 6.9 days (p. 4). This fits well with Vancouver's profile. Cruise passengers also prefer to leave from a homeport that is close to their own home. This is primarily due to the cost savings and convenience of not having to fly to the cruise (p. 26).

Within the context of this growing market, the VPA cruise sector has had a virtual monopoly because it was the single homeport for the most popular seven day return trip Alaska cruise market. There are two reasons that the VPA was the only homeport in the market. The primary reason is a combination of geographic proximity and technology; the trip could not be made through the inner passage to Alaska and back from any other mainland port in seven days or less. The other reason is the result of U.S. cabotage laws, which prevent vessels below a specified percentage US ownership and staffing from travelling directly between two states. Most cruise lines are international companies, meaning that ships leaving the Port of Seattle or San Francisco had to stop at a Canadian port on the way to and from Alaska, adding to the round trip travel time. By the 1999 cruise season, technology had changed allowing smaller ships to leave from the Port of Seattle, and make the trip to Alaska and back in seven days, including stops at Canadian ports on the way (Anderson, 1999).

While Vancouver had a monopoly as a departure port, Vancouver's cruise sector was not itself a monopoly. A monopoly market is one where there is a single seller in a market with several buyers, where the seller is able to set prices higher than what would occur in a competitive market. While VPA was the only homeport for the seven-day-round-trip Alaska cruise market, several cruise lines compete against each other to carry the passenger traffic. Additionally, there is a lot of competition within the cruise sector regarding departure and destination location. Alaska is the third most preferred cruise destination internationally. If prices get to high, travellers have the option of changing to other departure points and destinations. This means that the port had to continue to act in a competitive manner, with consideration to the needs of their consumers. Their ability to engage in profit maximizing monopoly pricing was constrained at the upper limit by the possible switching of passengers to non-Alaska destinations. VPA did however, have cause to believe that they would continue to hold a large portion of the market share based on the lack of competitors.

The Vancouver port was at capacity when Seattle joined the cruise market. Sunday is the ideal loading day for cruises, with Friday, Saturday or Monday being secondary preferences.

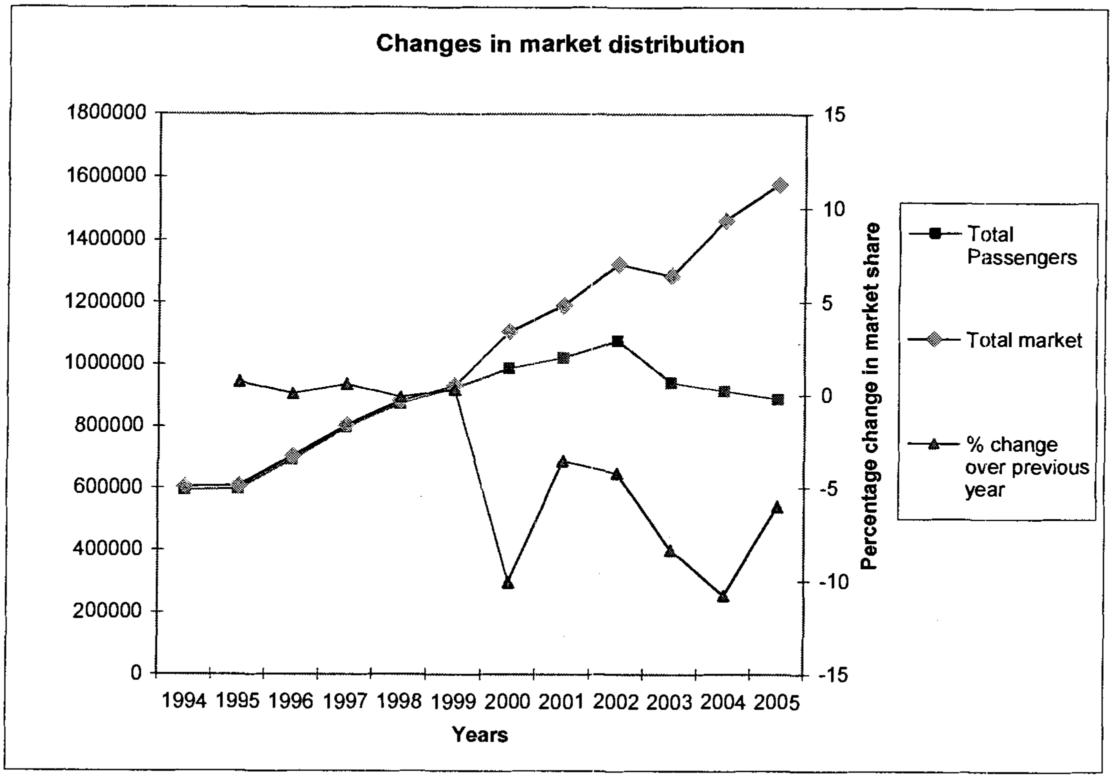
When Seattle was able to offer sailings in the same market on preferred days, it was a sound business decision for cruise companies to switch homeports.

In response to the loss of market share, the VPA initiated activities to recapture some of the market segment to remain competitive. These have not been overly successful. The 2003 cruise season included a pilot project to streamline passenger traffic between the port and the airport. This is not associated with a rebound in cruise passengers. It appears that results are similar for the permanent launch of this streamlined customs program in 2005. Vancouver has had very high approval ratings for the 2005 season. In a recent ranking of cruise ports informed by surveys, Vancouver was rated number one out of 40 in terms of friendliness, service, baggage handling and hospitality (Engle, 2006), suggesting that Vancouver continues to be competitive in terms of customer satisfaction. Though there has been no measurable influence to date, it may be premature to say that the program has had no impact on declining passenger rates. There may be a gap between initiating the program and any resulting rebound in passenger traffic.

4.1.2 Financial Data

Figure 2 below shows the total market and Vancouver's annual passenger totals using the axis on the left. Percentage change over previous year is shown in the same chart using the axis on the right. This graph indicates that Vancouver did experience its first dramatic loss in market share when Seattle entered the market. Up until 2003 Vancouver did continue to see modest growth in cruise. This changed in 2003 when Vancouver experienced a second sharp reduction in market share as Seattle's second cruise terminal opened. The Alaska cruise market experienced slightly negative growth in the same year, though Vancouver experienced a steeper decline, and has continued to decline as the market recovered and has grown.

Figure 2 Changes in Vancouver's portion of market distribution relative to the whole market



Source: Vancouver Port Authority website, cruise statistics; Seattle Port website, cruise statistics

The two steepest declines in Vancouver's cruise traffic occurred when Seattle opened their Bell St. terminal in 2000 and the year after the opening of Terminal 30 in 2003. This suggests a correlation between Seattle increasing their capacity and Vancouver losing passengers. Using the total linear feet of berthing space available for cruise as a measure of capacity, Table 4 below shows the proportion of market capacity attributed to Vancouver and Seattle cruise terminals.

Table 4 Proportion of cruise market and capacity

	Berth size (in feet)	Proportion of total
VPA Capacity	5486	0.578
Seattle Capacity	4000	0.422
Total capacity	9486	1

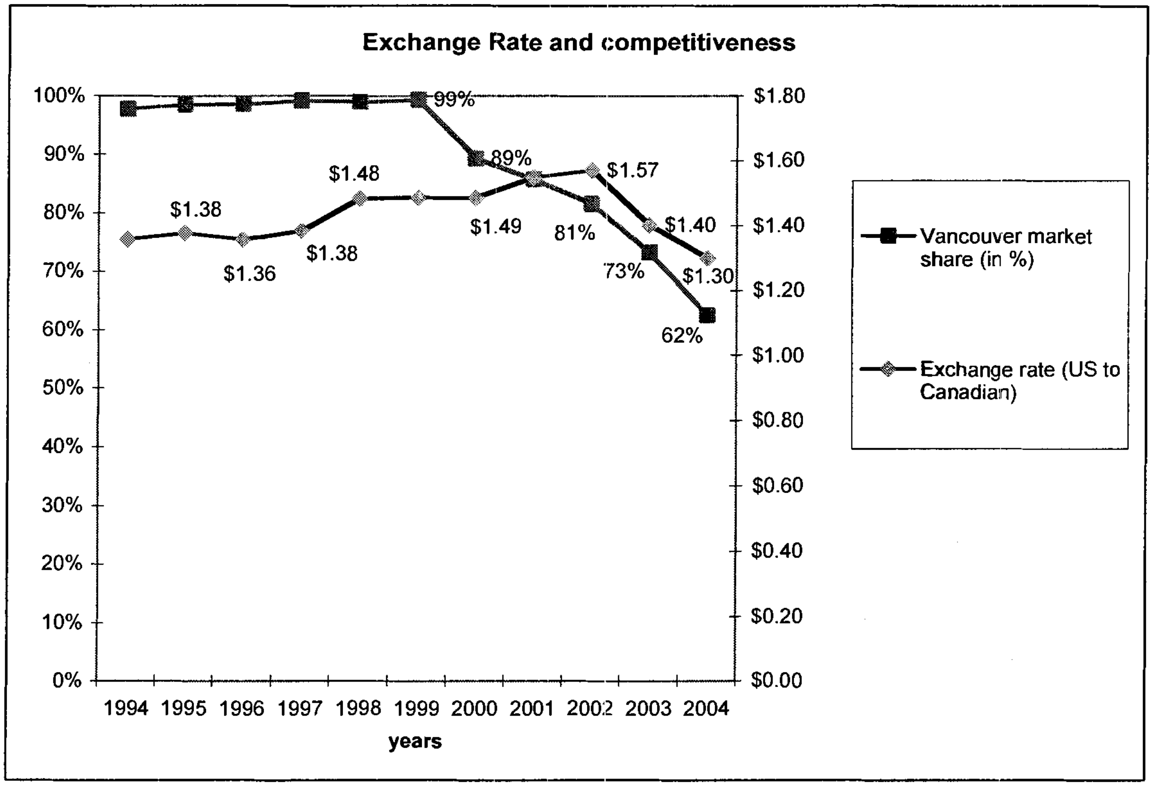
Source: Port of Vancouver, port of Seattle websites

By this measure, Vancouver retains a relatively proportionate share of the market, having 58 percent of the cruise berthing capacity, and 56 percent of the cruise traffic in 2005. In 2004 they still had 62 percent of the market, if the downward trend continues, this would indicate that the loss of market share is more than the market adjusting to a new competitor, and is in fact becoming less competitive. Since Seattle entered the market in 2000, the market has grown to be 140 percent of the size. Seattle has been able to capture all of the growth, as well as 10 percent of Vancouver's passengers.

As a measure of capacity, berthing feet is reasonable, but does not account for unusable berthing space. An alternate measure of capacity is how many ships can be berthed at a single time. This can, however, be difficult to assess, because cruise ships come in a variety of sizes. According to Greg Wirtz, Manager of Cruise Trade and Development, at a maximum Vancouver's cruise terminals can handle six ships including overflow; this is four regular berths and two overflow. Seattle's cruise terminals can hold a maximum of four ships, three regular plus one overflow. Calculating capacity using number of berths, Vancouver has 57 percent without the overflow, and 60 percent of capacity with. Measuring capacity in this manner also indicates that market share has dropped below their market capacity.

A final market characteristic that can have an impact on the cruise business is the value of the Canadian dollar relative to the American dollar. From 1996 until 2002 the value of the Canadian dollar was low compared to the US dollar; in 1996 one US dollar was worth $1.36 Canadian, by 2002 it was worth $1.57. This meant that American cruise passengers could get more value for their money spent in Canada. When exchange rates started to drop in 2003, Vancouver was already experiencing a steady decline in cruise passengers. Figure 3 below shows Vancouver's decline in market share and changes in the exchange rate relative to the American dollar. When the Canadian dollar was at its lowest point in 2002, providing the greatest value to American cruise passengers, Vancouver's passenger numbers had already declined significantly. The relative value of the Canadian dollar does was not sufficient to bring passengers from the U.S. back to the port of Vancouver.

Figure 3 Exchange rate and competitiveness



Source: Bank of Canada; Vancouver Port Authority annual reports 1995-2004

4.1.3 Interview Data

One of the primary sources of cruise operating revenues is the per capita fee for disembarking and embarking passengers (collectively referred to as revenue passengers). Seattle has been able to keep the rates charged low, because they can cover some of the capital costs through taxes and subsidies. They are also not required to earn as high a rate of return on their investment as is Vancouver. As an example of how much this can impact the per passenger rate, in 2004 Seattle charged about $6.50 per revenue passenger where Vancouver charged $11 (G. Wirtz, personal interview, February 23, 2006). As the exchange rate decreases, not only is there less incentive for US customers to spend money in Canada, the per passenger rate that the port of Vancouver charges becomes relatively higher.

When the Canadian dollar was relatively low compared to the U.S. dollar, this did not present a significant competitive disadvantage. Now that the Canadian dollar is higher, this presents a significant advantage to Seattle. This situation also provides an example of how uneven the playing field that Vancouver must compete in really is.

According to the Manager of Trade and Development, Cruise at the VPA, the change in technology that has allowed the US to compete in the same Alaska seven-day-round-trip market as Vancouver, has been a significant factor. Under current market conditions, Vancouver is over invested in cruise terminals (G. Wirtz, personal interview, February 23, 2006). There is more capital invested in the sector than can be justified by the returns. For example, VPA earns a return of about $0.20 after asset depreciation on every dollar invested at the port authority level. In contrast, the cruise sector earns only half of that, about $0.10 after depreciation for every dollar invested (in 2004 dollars) (L. Sawrenko, personal interview, February 21, 2006).

Their presence in the market alone does not explain why Seattle has been so successful at capturing market share. Since Seattle entered the market, the market has continued steady growth at about 10 percent per year. Seattle has captured that growth on top of capturing a portion of Vancouver's pre-existing passenger base (G. Wirtz, personal interview, February 23, 2006). Vancouver has seen a decline of 10 percent over their 2000 passenger levels, and 17 percent since their peak in 2002.

4.1.4 Summary

Table 5 Summary of results of variables tested in hypothesis one

Market Factors	Number of competitors	Decrease market share	Supported
	Capacity	Increase market share	Inconclusive
	Competitor capacity	Decrease market share	Inconclusive
	Exchange rate	Decrease market share	Unsupported

As summarized in Table 5, the data supports the hypothesis that the decrease is related to the entrance of a second competitor in the market. There relationships between capacity of the Vancouver port, as well as the capacity of the competitor and the drop in market share are not conclusive. There is a relationship between the share of capacity and the share of the market, but the balance of the relationship is not yet clear. The implications of these results are further discussed in chapter five.

4.2 Hypothesis 2 – Financial Tools

Hypothesis 2: The current legislative framework surrounding port authorities, including the Canada Marine Act, places constraints on the ability of the Vancouver Port Authority to recover costs of investments to their cruise terminals, restricting the ability to be competitive with Seattle.

The aim of the National Marine Policy was to create a national port system that would be efficient, self sufficient, and provide economic returns to the federal government. After several years and several attempts, the federal government passed the *Canada Marine Act* (CMA), to implement the national marine policy. The CMA incorporated some, but not all of the recommendations and principles identified in the National Marine Policy consultation. The CMA removed the federal government from liability for funds borrowed by port authorities; it prevented port authorities from borrowing or receiving finances as agents of the crown; and restricted the port authorities from being eligible for federal funds. It did not go as far as recommended by the Standing Committee on Transportation (SCOT) in 1995, to provide "full delegation of authority to make contracts, leases, and to acquire or dispose of land" (SCOT, 1995 A New National Marine Transport Act, Recommendation 3 section, para. 8).

CPA port costs increased when they were given sole responsibility for federal lands within their jurisdiction, and were required to pay a charge on gross revenues to the federal government. Prior to and including the period of regulation under the *Canada Ports Act*, port corporations were required to pay dividends to the federal government, they were also eligible for capital grants and received loan forgiveness (SCOT, 1995 section *The Current Ports Structure* para. 2).

At the same time, the CMA reduced avenues for financing available to the CPA ports. Revenue sources were restricted to commercial loans secured by streams of future revenue, lease payments on lands designated within the ports letters patent, and operating revenues, including harbour and other allowable fees. CPA Ports are restricted from any business pursuits not directly related to the port industry, though they compete against US ports that can.

Taken together, these measures constrain the ability of port authorities to compete with US ports, which have access to a wider range of types of funding.

4.2.1 Literature Review

A review of relevant case studies in the literature suggests that the financing restrictions have the potential to limit competitiveness, and in some cases have. The port of Halifax provides an example of how the borrowing cap has had real implications for a Canadian port. In 1998, the Halifax Port Authority made a bid to attract a major container hub to their port. The $25 million cap left them a minimum of $225 million short of what the construction of such a terminal would cost, according to David Bellefontaine, President of the Halifax Port Authority (as quoted in Ircha, 2001b, p. 18). The contract went to the port of New York/ New Jersey, one of Halifax's strongest competitors.

The examples of cruise development in Seattle and San Francisco illustrate how these restrictions can potentially limit CPA competitiveness. The Port of Seattle augments its terminal operations with conference centres, site seeing tours, walkways and public access points. The Port of Seattle considers itself "an economic development and international trade resource" (Port Seattle, 2005, Seaport business section) and provides a variety of economic development initiatives that are discussed under chapter 4.2.1. Despite this, it has been reported that the port of Seattle lost money on its cruise operations in 2005 (Scott, 2005).

In 1998 a report, the San Francisco Port Commission stated that cruise terminals are generally not able to cover the costs of terminal construction with operating revenues. San Francisco is currently in the process of building a new cruise terminal. The development has been long in the planning stages because it will be financed in part by the proceeds of luxury condominiums on port land. The development partnership is reportedly waiting for the value of office rental space to increase, which will improve the financing (Bole, 2005).

The San Fransisco report identified a trend among newer cruise terminals in North America towards including commercial uses and public amenities. Commercial uses include hotels, convention and conference space, retail space, restaurants, and entertainment space. They assert that commercial uses are necessary near or at the terminal site to provide the revenue needed to cover the capital costs of the terminal. They also identify the trend towards providing year round commercial and recreational amenities, to provide local appeal during the off-season (San Francisco Port Commission, 1998, p. 4). In their report outlining the vision for the new San Francisco terminal, they name the Canada Place terminal at Port Vancouver as "an excellent example of a modern cruise terminal" (San Francisco Port Commission, 1998; appendix A) and provide an overview of its development and services in its appendices. The main difference between what is proposed in San Francisco and Vancouver's Canada Place terminal, is that San Francisco would receive the revenues from commercial uses, where Vancouver does not.

Under the Canada Marine Act (1999), the authority of CPA ports to operate is limited to:

> 28. (2)(a) Port activities related to shipping, navigation, transportation of passengers and goods, handling of goods and storage of goods, to the extent that those activities are specified in the letters patent

(b) Other activities that are deemed in the letters patent to be necessary to support port operations

Under the Vancouver Port Authority letters patent, the port is allowed to operate restaurants, bars, office, retail, display and trade shows, entertainment activities, tour operations and other tourism related activities, as long as a) those activities are related to the operation of the port; and b) the board has determined that it is either not practicable, or not in the best interests of the port authority, to carry on the activity through some leasing arrangement. It also specifically references section 4 of the Canada Marine Act in the latter exclusion from the leasing option (Canada Gazette, 1999; supplement 1 ch7.1 s 28(2)). As federal agencies, CPA ports must be careful that they do not unfairly compete with commercial businesses.

The CMA has also caused an increase in port administrative costs because CPA ports are now required to comply with federal regulations including access to information, environmental assessment and the *Official Languages Act* (Ircha, 2001b, p. 18).

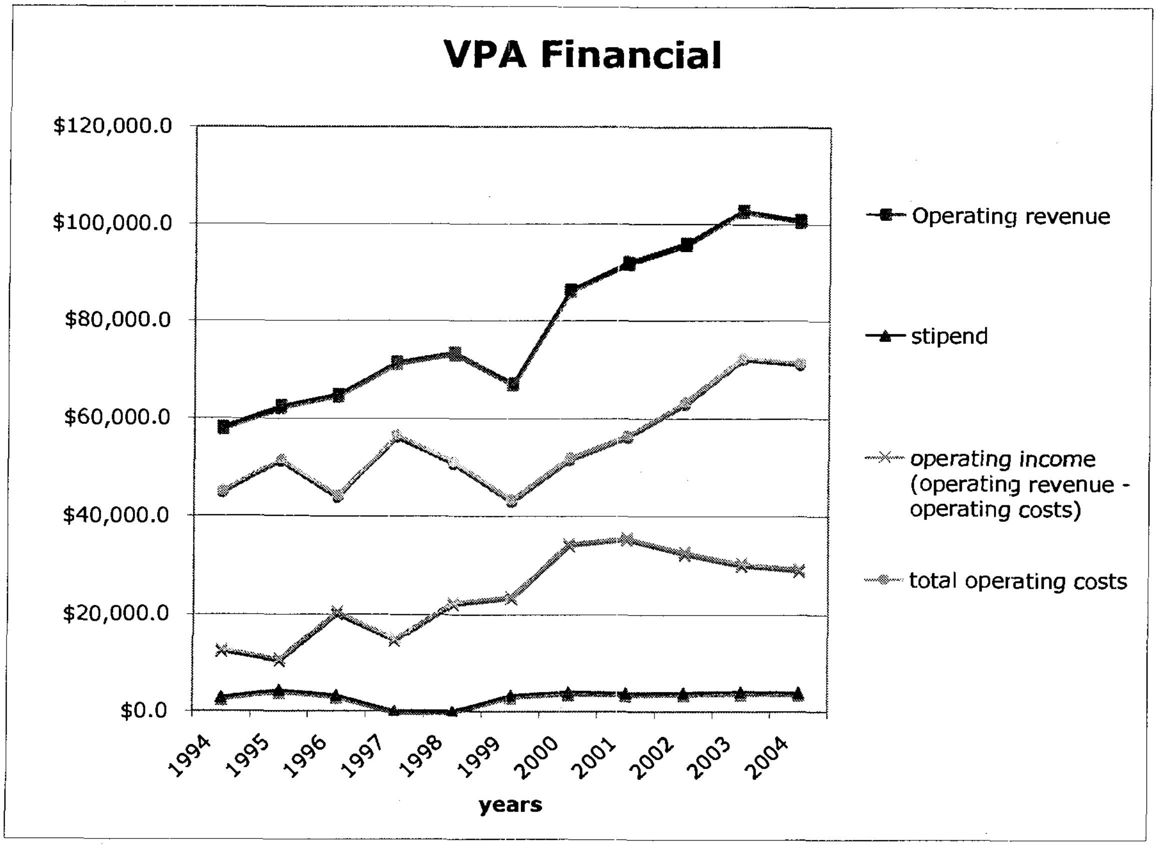
4.2.2 Financial Data

The data in this section is mainly derived from annual reports published by the Vancouver Port Corporation from 1994 to 1999, and the Vancouver Port Authority from 2000 to 2004. Additional data has been compiled from statistics listed on the Vancouver and Seattle websites, as well as provided by the Vancouver Port Authority from their financial records.

Figure 4 below shows the relationships between operating revenues and port costs. The average annual growth in port revenues is just under $7 million, higher than the average annual growth in costs, which is just over $4 million. Operating income (the difference between operating revenue and operating costs), however, has been falling since 2001. The stipend to the federal government is not included in the operating cost because it was calculated differently before 1999. However, when added to the operating costs, the gap between operating revenues and costs closes even more.

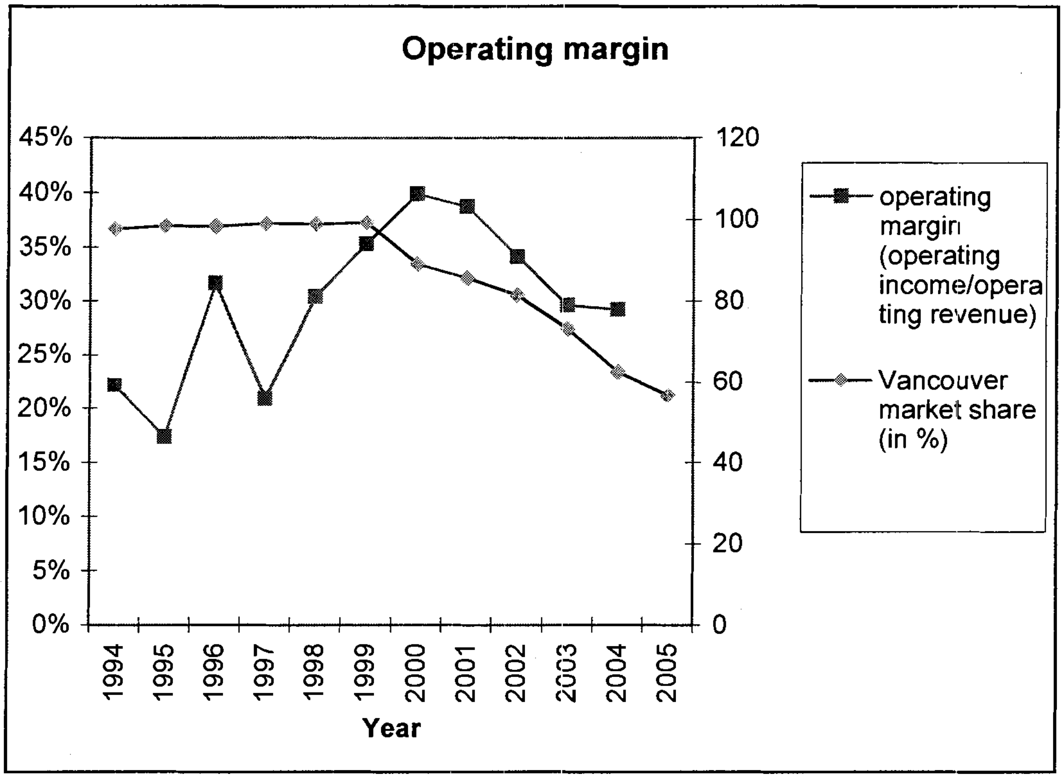
The spike in operating costs in 1997 can be explained by the added costs from disbanding the port police. Port authorities were required to pay severance packages for laid off port police employees (Vancouver Port Corporation (VPC), 1997, p.7). There is a noticeable drop in both operating costs and operating revenues corresponding with the year that the VPC became the VPA. They both continued to rise steadily after that, with revenues initially increasing at a higher rate, then decrease in 2004. The data presented in Figure 4 is aggregated at the port authority level because similar data at the terminal level is not available over any span of years.

Figure 4 VPA revenues and costs



Source: Vancouver Port Authority Financial Reports 1995-2004

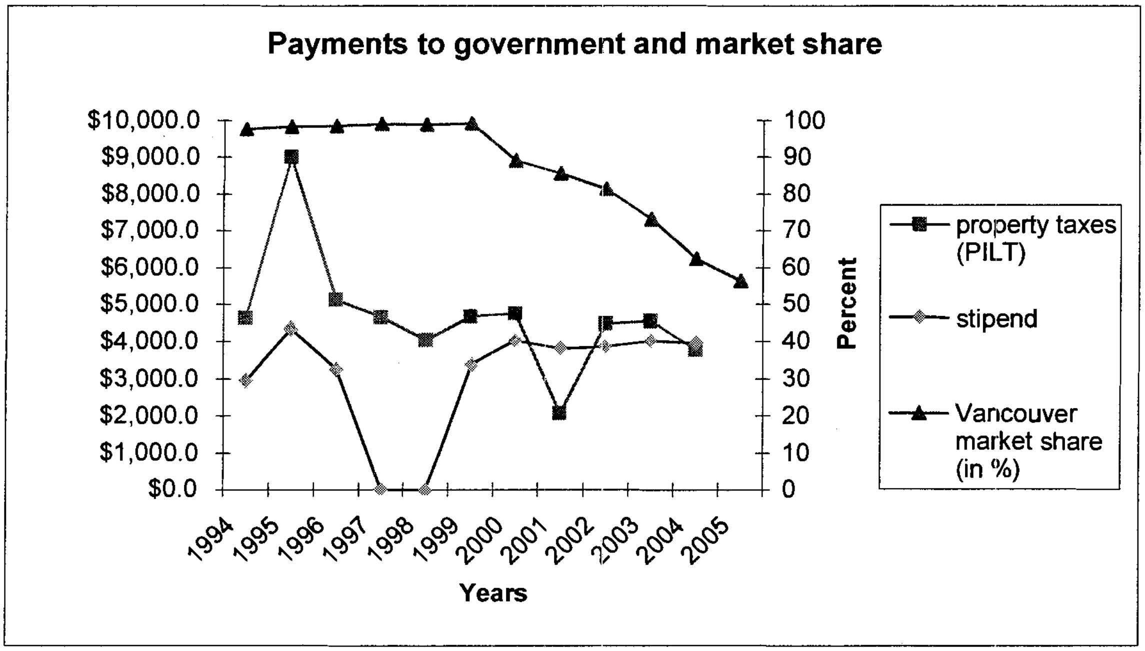
Figure 5 Operating margin at the port level and market share



Source: Vancouver Port Authority financial data, 1995-2005

In Figure 5, the operating margin is presented as a percentage and compared to the dependent, market share, presented as a percentage of total using the scale on the right axis. Operating margin shows how much income the port authority can keep for every dollar of revenue spent. At the peak in 2000, the Vancouver Port Authority was keeping \$0.40 for every dollar of operating revenue. The operating margin is operating income less payments in lieu of taxes, but not the stipend to the federal government. When the stipend is subtracted from the annual income the peak drops to 35 percent, but the overall shape is essentially the same. This figure indicates that the port authority has been seeing decreasing returns since 2000, coinciding with Seattle's entry into the cruise market. Operating margin did level off somewhat after 2003, while the cruise passengers continued to decline. The steep drop in operating margin in 1997 can be attributed to the additional costs associated with disbanding the port police in that year.

Figure 6 Payments to government and competitiveness



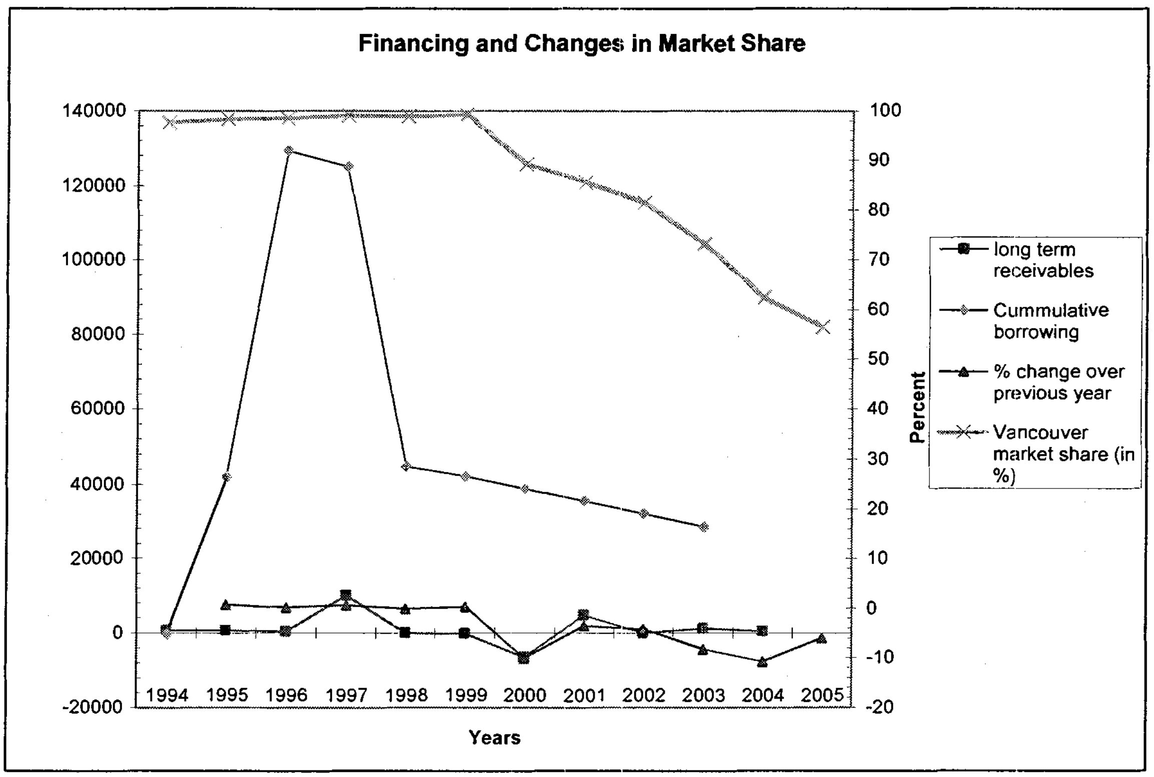
Source: Vancouver Port Authority financial data, 1995-2005

Figure 6 tracks the costs of property taxes and the stipend along with the measure for competitiveness. There are not clear relationships between the burdens of property taxes or the stipend and the share of the Alaska cruise market captured by the VPA. The $49 million upgrade to the Ballantyne cruise terminal completed in 1995 (Vancouver Port Corporation, 1995) explains some of the increase in payments in lieu of taxes, some of it is attributable to assessment practices. This issue is further discussed below. Vancouver did not pay dividends (the stipend) in 1997 because they had a consolidated net loss in 1996 following a re-evaluation of the ports subsidiary corporation, Canada Place (Vancouver Port Corporation, 1997, p.23-24).

The drop in property taxes in 2001 can be attributed to a correction for over payment by the VPC in previous years. Audits by the Municipal Grants division of Public Works Canada done in 1998 suggested over payment of about $4 million (Vancouver Port Authority, 1998b, p.11), but this correction was not recorded in their financial statements until later. This is typical of the process for challenging assessments. When the port challenges, the public works department will do a review of the value. The port and the municipality then engage in negotiations to determine the appropriate value. This process can take years, and in the intermediate time, the port continues to pay taxes based on the last assessment plus inflation. When an agreement is reached, there is sometimes an over payment that is credited, or an underpayment that is owed. This sort of a situation is most common when leases expire or new leases are signed, and responsibility for municipal taxes changes hands. Currently the PILT payments have stabilized as most land is on long term contract and the vacancy rate is around 3 percent (R. Fitzgerald, personal interview, February 28, 2006).

Figure 7 tracks long-term borrowing and long-term receivables along with market share to see if there is a correlation between these variables and competitiveness.[2]. Borrowing and financing from long-term receivables are graphed using the axis on the left. Market share and annual changes in market share are graphed using the axis on the right. There is no clear relationship between borrowing or long-term receivables and market share. Long-term receivables drop in the same year that Vancouver experiences their largest change in market share. There is no other evidence to support the suggestion that this indicates there is a relationship between the two.

Figure 7 Financing and competitiveness



Source: Vancouver Port Authority financial data, 1995 - 2005

[2] Data for long term receivables stops in 2003 because the way it was recorded in the financial reports changed.

4.2.3 Interview Data

An examination of the cruise sector operating costs and operating expenses, suggests that cruise terminals are self sustaining. However, administration and overhead facility costs are not included in the operating expenses. Office expenses and overhead administration costs are not attributed to individual port sectors, they are calculated at the aggregated port authority level. When the administrative costs attributable to the cruise sector are calculated into operating costs, the cruise sector loses money (L. Sawrenko, personal interview, February 21, 2006).

The port does receive some non-operating revenues through their subsidiary companies, such as Canada Place Corporation. These subsidiaries do not directly cross subsidize port operations, as is the case in San Francisco, but the port does, and is required by regulation, to make a return on their investment in subsidiaries. Subsidiary corporations must cover their own overhead costs and be self sustaining, while the port must make a return on their investment, the returns are similar to that of government bonds (L. Sawrenko, personal interview, February 21, 2006).

The borrowing limit does have the potential to restrict the ports ability to invest. The Vancouver Port Authority is unique in that they were the first to apply for an increase in their borrowing limit proactively. Most ports apply for an increase because they need to raise more funds for a specific project. The VPA applied on the basis that it was capable of carrying a higher debt load based on its financials. The old limit of $225 million potentially would have made it difficult to invest in a timely manner; the new limit is $510 million, and they do not anticipate this limiting investment in the near future. That said, the process to raise the limit took about a year and a half and was not easy. Had the port been applying for the increase to finance a specific project, the time it took would have impaired the investment (L. Sawrenko, personal interview, February 21, 2006).

4.2.4 Summary

Table 6 Summary of results of variables tested in hypothesis two

Financial tools	Operating income	Increase market share	Unsupported
	Operating margin	Increase market share	Unsupported
	Debt	Decrease market share	Unsupported
	Stipend payment	Decrease market share	Unsupported
	Non-operating revenue	Increase market share	Unsupported

As summarized in Table 6, there was no direct support for any of the hypothesised variables included in the examination of the financial tools. There are several possible ways to explain these findings. These are discussed in chapter five section two.

4.3 Hypothesis 3 - Governance

Hypothesis 3: The current governance structure of port authorities inhibits the ability to compete with ports controlled at a local or regional level, as is the case in the United States of America.

Canadian Port Authorities are governed by a Board of Directors, consisting of between seven and nine members; they are responsible for the management of all port authority activities. One of the goals of the CMA is to provide a high degree of autonomy to meet local needs and priorities. Control over ports, including the appointment of governing boards, remains centralized at the federal government level. Autonomy was increased over 1995 levels by reducing the layers of bureaucracy that ports had to go through to obtain ministerial approval. This was done by eliminating the Canada Ports Corporation body. In addition, the thresholds for transactions requiring ministerial approval were increased. Otherwise, the system of running the new port authorities was kept very similar to that of the Local Port Corporations in place prior to the 1995 review.

The ports are controlled and regulated at the federal level, this impairs the ports ability to meet local and regional priorities. It also prevents them from competing on a level playing field with competitors who have municipal status. The CPA's are competing against U.S. ports controlled at a municipal level, and in some cases, ports that have municipal powers. Municipal powers can include control over zoning as well as the ability to levy taxes on properties within their jurisdiction. Such is the case with the port of Seattle, which is the primary competition for the Vancouver cruise sector.

Federal control, though reduced from what it once was, still impacts the ability of the port authority to respond to local and regional occurrences by restricting the ability to purchase or sell land expediently. The governance of the CPA's, as prescribed by the federal government negatively impacts the port in two ways. First, the lack of municipal representation and direct involvement in port activities has created incentive to raise tax rates. Second, Canadian Port Authorities, as federal, non-profit corporations, are competing against ports have municipal status, and are able to act more broadly as well as raise funds through taxation.

4.3.1 Literature Review

Governance in corporate entities is "the structures, roles and responsibilities that provide the means by which the organization is managed as an economic entity, based on the objectives of the corporation." (Brooks, 2001, p. 2). Good governance is crucial to defining and achieving the strategic intent of a corporation. As public sector entities change and take on more business like practices, they must redefine their objectives accordingly. "The critical question for those implementing the not-for-profit model becomes: who fills the owner (shareholder) role in a non-share capital corporation?" (Brooks, 2001, p. 7).

Canadian Port Authorities are governed by the Board of Directors, responsible for the management of port authority activities (Canada Gazette, 1999, p. 5 article 4.1). Under the letters patent that authorise the VPA, only one of the nine Vancouver Port Authority board members is nominated by the eight municipalities designated in the letters patent. Six of the board members are appointed directly by the Governor in Council, one selected by the Minister and the other five are chosen by the Minister from a list provided by user groups. The western provinces appoint the remaining two: one by British Columbia and one by Alberta, Saskatchewan and Manitoba.

While a port authority is not a crown corporation, it is a federal entity under the Ministry of Transport. Despite increased local autonomy and decreased restrictions on spending that came with the CMA, CPA's continue to be tied to the federal government (Ircha, 2001b, p. 13). The ports remain at the federal level for several given reasons, including constitutional responsibility for transportation and waterways. One of the reasons cited in the Standing Committee of Transportation (SCOT) report for stakeholders wanting to remain under the federal government was to maintain the access they had as crown corporations to lower interest rates for loans backed by the federal government (Standing Committee on Transportation, (SCOT), 1995, Suggestions for Reform section, para 1). However, the subsequent legislative framework eliminates that benefit, as the CMA removed the federal government from liability for port authority loans.

Another reason for federal regulation is to provide uniformity across the industry within Canada. The previous regulatory environment provided for different types of ports and harbours to be subjected to differing legislative frameworks, restrictions, and entitlements. This led to self sufficient port corporations having to compete against government subsidized harbour commissions. For example, Harbour Commissions operated as corporations, but the *Harbour Commissions Act* specifically exempted these bodies from crown corporation status under the *Financial Administration Act* (Canada, 1985, s. 7. (5)), whereas Canadian Port Corporations, as crown corporations, were subject to the *Financial Administration Act*. This sort of disparity prompted the desire to have consistent rules applied uniformly across the country.

Finally, it was suggested by the SCOT report that a high proportion of stakeholders preferred to stay under the federal banner when they were consulted in 1994. According to the 1995 SCOT report, stakeholder submissions at the time were largely in favour of maintaining some federal role in the port industry, although this sentiment was not unanimous. There was some advocacy for having a fully privatized, or largely privatized structure similar to that of the then recently restructured airport sector. Those in favour of maintaining a federal role cited the advantages of carrying the federal flag on their business when negotiating overseas.

The 1995 review of the marine transport system recommended that the new port authorities should have full, delegated power to lease, contract, and acquire or dispose of land (SCOT, 1995, Recommendation 3 section, para. 8). This recommendation was not fully incorporated into the *Canada Marine Act*, and port authorities are required to go through an approval process to have supplementary letters patent issued for any acquired or disposed of land.

The issue of land acquisition has impacts on development. After the required land is identified and selected, in order to be acquired, the port must first pass at resolution at a board or general meeting. They then must send a letter to Ottawa asking to have new letter patent issued to reflect the acquisition. If the value of the property is more than $250 000 the approval must go through the Treasury Board. At a minimum, this step alone can take at least four months. After it is approved, the purchase then goes to Public Works and Government Services Canada (PWGSC), processing at that level then takes about another month. According to L. Doig, at PWGSC, this is not an easy process and the learning curve has been slow. Ports have had to adjust to Ottawa's system, and learn it by applying as they did prior to the CMA, then being told what is wrong and re-applying. In contrast, where PWGSC makes a land acquisition directly, they are able to purchase up to $10 million before it has to go through the Treasury Board. (L. Doig, personal communication, February 28, 2006).

Initially the National Ports Policy proposed greater local autonomy for port authorities allowing port users to directly appoint board members. Port chairs, directors and managers reportedly lobbied the federal government to have control of the appointment process remain with the Minister of Transport. Ircha (2001b) suggests this was, at least in part, in an effort to protect their own patronage appointments (p. 9). Political considerations have been known to lead to decisions in favour of the public interest over commercial needs. As an example of this Ircha

(2001b) cites subsidized icebreaking to keep the port of Montreal open year round to compete with the ports of Saint John and Halifax (p. 16).

Brooks (2004) expressed concerns that the model of ministerial appointment can lead to board decisions that "may reflect ministerial priorities if the appointees choose to exhibit more loyalty to the minister than fiduciary responsibility to the entity" (p. 177). She also noted that this model has had challenges in transitioning from a centralized approach to incorporating a decentralized, business-like model with a focus on competition. Ircha (2001a) identified the following strategic issues facing Canadian port authorities that had yet to be dealt with by the CMA. He identified a need to further move towards market driven, competitive business orientation by delegating more authority to CPA's and reducing central controls and regulations. There is also a need to deal with the hampered market responsiveness caused by the constrained operating environment and continued ministerial directives. The CMA should clarify goals to reduce confusion between political and business objectives, and encourage public private partnership arrangements to provide investment funds for market driven ports (p.137).

The national port strategy promised a port system that would be financially self sustaining, autonomous, responsive to local needs and priorities, and take into account input from users and the host community. In their study exploring the link between the external environment, organizational goals and organizational systems, Baltazar and Brooks (2001) found the establishment of the structures in Canadian ports designed to meet these goals 'internally inconsistent'. According to what they refer to as 'the Matching Framework' organizational performance is "a function of the match among the characteristics of the organization's environment, strategies and structures. The greater the fit, the greater the expected performance" (p.3). They argue that in practice "true devolution did not happen for Canadian ports. The separation between policy and execution was not just a small, manageable gap, but a large, unbridgeable crevasse" (p.12), and ultimately conclude that Canadian port reform failed to deliver its promise, "by only making the ports federal agencies, they "devolved" decision-making insufficiently; they removed responsibility for investment with insufficient ability to raise funds for capital projects" (p.19). The strategy of being customer-focussed and effectiveness oriented was not matched by the requisite change in management orientation with sufficient independence. The result was internal inconsistency, and a structure that is not matched to the competitive environment.

Ircha (2001b) suggests that the establishment of CPA's should be the first in a multistage process towards privatization. That ongoing movement towards corporatization would clarify the 'public enterprise paradox' (p. 20). This is the dilemma identified in the introduction of this paper. Public enterprises are continually torn between decisions favouring the public good and those favouring the bottom line, including competitiveness.

The research is inconclusive with regard to what constitutes good governance. Although Brooks (2001) concluded that that good governance is necessary to meet local development objectives, in a later paper she also found that a review of port devolution literature "indicates that most port devolution programs have been fraught with difficulty, and that none of the approaches is without its detractors." (2004, p.180). She suggests that further research on the link between governance and performance is required.

The fundamental difference between Canadian and U.S. public ports is that in Canada, ports are creatures of the federal government, requiring little attachment to other levels of government. The port makes payments in lieu of taxes to the municipal governments for the lands they operate; lessees pay regular property taxes on leased land. The ports are also exempt from municipal zoning regulations (Fitzgerald *et al*, 2002, p.4), although the Vancouver Port Authority has chosen to engage in an information sharing relationship with the city of Vancouver.

In contrast, the U.S. federal government is restricted from involvement in port activities by the constitution. Newman and Walder (2003) argue that the port preference clause in the constitution does not actually preclude federal involvement in ports, and that there is room to plan for national port investments in the context of meeting national goals (p. 160). The US federal government expresses its interests in the national ports system through subsidy programs such as the *Transportation Equity Act for the 21st Century* (TEA-21), a more than $200 billion transportation investment (Fitzgerald *et al*, 2002, p. 4), as well as by providing dredging services through the Army Corp of Engineers.

The Vancouver Port Authority has few direct links with the provincial government, although British Columbia engaged a port strategy in 2005 that included a temporary cap on property taxes on port lands (British Columbia, 2005, slide 7).

Public ports in the US are divisions of state or municipal governments. Ports began as private sector railroad ports and were eventually brought under local and regional governance structures (Ircha, 1995). They are municipal corporations in their own right, that have geographic boundaries that exist within the counties where they are situated, but are independent of their host's government. As a result of this arrangement, they are able to acquire and improve lands for industrial and commercial purposes, as well as levy and collect taxes for general port purposes

(Fitzgerald *et al*, 2002; 3). Washington state ports have had the ability to levy taxes since 1911, since then the state legislature has set a maximum mill rate of .45 ($0.45 per $1000 assessed value) (Washington Public Ports Association (WPPA), n.d.b, Taxes section).

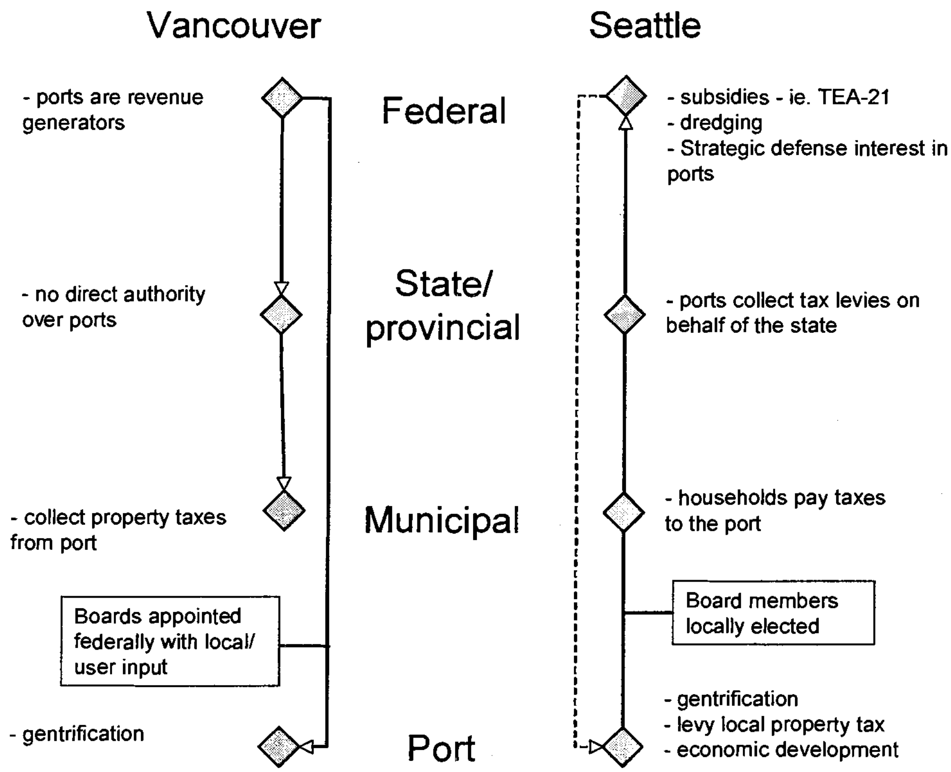
A port district in Washington State is established by a vote of the people within the proposed boundaries. This electorate also sets the boundaries of the district, and votes in the first board of commissioners. The port of Seattle board of commissioners consists of five members elected for four-year terms. The commission is a quasi-legislative body that functions to guide the port, its development, growth and operations (WPPA, n.d.a, Port commission section). The port also collects leasehold tax from its lessees on behalf of the state (WPPA, n.d.b, Taxes section).

The port of Seattle is divided into three divisions: the aviation division, responsible for the Seattle-Tacoma airport; the Economic Development division, focused on being a regional economic driver (discussed below); and the seaport division, providing harbour services, cargo and cruise services, business development and property management. Property management includes non-maritime real estate holdings (Port Seattle, n.d.c).

In 2003 the Port Seattle initiated their small business initiative to fulfil their objective to create economic development in their region. This initiative allows small businesses to access port related contracts. They have special provisions for socially disadvantaged, minority and woman owned businesses (Port Seattle, n.d.b). Among their objectives, the Port of Seattle also lists being a catalyst for regional transportation development, both to promote competitiveness of the region and to ensure efficient access to port facilities and port developments (Port Seattle, n.d.d). Port of Seattle also engages in several economic partnerships to promote economic development.

The following diagram illustrates the differences between Vancouver Port Authority and Port Seattle in their connections to local, state/provincial and federal governments. As described by Fitzgerald *et al* (2002), "governing structure is crucial to understanding the contrast in tax regimes. It may account for the different views of local governments towards the economic activities of ports." (p.3-4). The diagram illustrates that there are direct ties between the port of Seattle and the municipal, state and federal governments. They are all tied to each other; even where the link is not direct between the federal and port levels, there is a strategic link that generates funding for the port. In contrast, Canadian ports only have links to the federal government. There are overlapping jurisdictions related to land use and land use planning, but there are no direct or strategic ties between the provincial or municipal governments and the port.

Figure 8 *Comparative structural differences in property tax and interaction with other levels of government*



Source: After Fitzgerald et al *(2002, p. 4)*

In 1998, the City of Vancouver and the Vancouver Port Corporation signed an agreement, the charter, to begin a new process of relationship building. The charter provides for joint annual meetings to review each other's plans and identify issues that require resolution, as well as opportunities for mutual support. The two parties agreed to work together on several areas of mutual interest, including, but not limited to: the promotion of port businesses; effective management and use of the harbour and recreation areas; access to the water for necessary city services; and the development of the city and port lands in a way that is compatible with both port economic development and the interests of the city (City of Vancouver & Port of Vancouver, 1998)

In 2005 port stakeholders, including port authorities, port operators, port host municipalities and the province of British Columbia met in North Vancouver to discuss the issue of property taxation. The title of the meeting was "a process for a new relationship". At the heart of the rift between the port community and the host municipalities is the amount of property taxes paid by port lessees and PILT's paid by the port authorities.

Assessment of property value for taxation purposes is the responsibility of BC Assessment, a provincial crown corporation. As such, the BC government faces pressure to find a way to adequately assess property values, while still protecting the competitiveness of BC's ports. The value of waterfront property in the lower mainland is quite high, and port lands are exceptionally difficult to value due to the absence of a proper market. Port lands are all crown lands, and are to be used exclusively for port purposes. They cannot be developed at their "highest best use", and there is no market for port land. At the same time, the port community argues that since BC introduced a variable rate property tax system in 1983 with the *Property Tax Reform Act*, the burden of property taxes has fallen disproportionately on class 4 – major industry, which includes ports.

In response to this, the province of BC in 2004 placed a cap on the mill rate that could be applied to ports, through the *Ports Property Tax Act.* The *Act* set a maximum mill rate of $27.50 on designated port properties, as well as a maximum of $22.50 on new investment on improvements until 2009 (British Columbia, 2004, s. 3-4). This resolution is both temporary and, based on discussion taking place at the June 24, 2005 meeting, apparently unsatisfactory to both port users and the municipalities (see also British Columbia, 2005, slide 5). It is not within the scope of this report to answer the question of how to effectively tax port lands, but this ongoing debate between ports and host municipalities represents a tension in the relationship that is, at least in part, attributable to the governance model.

The port of Seattle is a public port that has several local economic development goals. The structure of the port reflects that. In contrast, the VPA has public and private goals. The governing structure at the macro level, the interconnections with other levels of government, reflects the private goals of economic self-sufficiency. At the same time, the VPA has public goals it must meet. For this purpose, the Board of Directors has representation for government, but the governing structure at the macro level does not provide the tools to act on public goals. As a result, the port must expend more effort and resources to uncover avenues for meeting the public goals.

4.3.2 Financial Data

The VPA invested $49 mil in 1993-1994 in the Ballantyne cruise terminal, as well as roughly $89 million in cruise (VPA, 2000, p. 14) between 2000-2002. The Canada Place investment did not result in a corresponding increase in property taxes paid, however this is a result of a readjustment for past taxes paid. Due to the process for challenging and re-evaluating tax assessments, this method of illustrating risk of capture is not very precise. The taxes paid in a year are not reflective solely of the assessment and mill rate for that year. Adjustments take place, as discussed in section 4.1.2, on an ongoing basis, which can have a lag time of between 1 and 10 years.

4.3.3 Interview Data

When asked in interviews to identify what key factors in port competitiveness, one of the inputs named was a good working relationship with the municipality. (L. Sawrenko, personal interview, February 21, 2006). Within a port authority, different sectors compete for capital. Based on purely commercial criteria, the port would not invest in cruise. It would invest in container terminals instead (G. Wirtz, personal interview, February 23, 2006). The cruise sector brings $1.6 million a year in net direct and indirect benefits into the local economy through taxes paid (MMK, 2005, p. 15). That is, after deducting the costs to the city of providing services to the cruise terminals, they receive a positive gain of $1.6 million through property and hotel tax revenues attributable to the cruise sector. The cruise sector also provides an estimated direct impact on GDP in the province of British Columbia of $91 million annually (InterVISTAS, 2005, p. 41). The societal benefits of this investment are clear and come at little cost to the recipients; the city does not directly invest in cruise related activities. There are relatively fewer benefits to the VPA, where they earn an approximate $.07 return on every dollar invested in the cruise sector (before depreciation). Financial benefits from cruise investment also accrue to hotels, entertainment and local amenities, as an average of 35 percent of cruise passengers chose to stay in the homeport city either before or after their cruise (G. Wirtz, personal interview, February 23, 2006).

The city of Vancouver does not seem to agree that there are benefits to the city of having these cruise terminals. The Vancouver Port Authority has identified several opportunities for the port and the city to work together to their mutual benefit. The port and the city of Vancouver do hold working group meetings to discuss issues of importance to both parties (R. Fitzgerald, personal interview, 2006). Over the years, there have been discussions between the two on a variety of issues, but no progress has taken place.

One example of such an opportunity is in local transportation. The VPA has, in the past, received complaints from people who have had to wait hours outside the terminal for an available taxi. There are 450 licensed taxis in the city of Vancouver. At their peak, the cruise terminals can have up to 5000 people looking to explore the city. The port has approached the city with possible solutions including shuttles, increasing the number of taxi licences, and bringing in capacity from surrounding cities at peak times. The port believes that improving this situation will bring benefits to the city through tourism dollars and taxes. As an example, the province and city split the 15 percent hotel tax paid by hotel occupants. Although cruise passengers do not pay hotel taxes, the 35 percent of cruise passengers that stay in the city before or after their cruise do (G. Wirtz, personal interview, February 23, 2006).

It takes business and industry to create a sustainable city. Sustainability comes from creating a balance between social, environmental and economic components. There are benefits and reciprocity in the relationship between the municipality and the port authority; but everyone wants the ports out, because they are on such prime waterfront land (R. Fitzgerald, personal interview, 2006). According to G. LaRue at the Association of Canadian Port Authorities (ACPA), this occurs for two reasons: the differential interests of business and municipalities; and the dual public/private duties of Canadian Port Authorities.

First, there is a healthy tension between the interests of municipalities and commercial entities. Working towards solutions that suit all parties requires constant dialogue. One of the public duties of a port is to act as a moderator between the port operators, truck, rail, shipping industry and the municipality. The situation in Vancouver and the lower mainland area is that port authorities have the added complication of multiple municipalities and meeting all of their varied interests (G. LaRue, telephone interview, March 13, 2006).

Second, because Canadian ports are designated in both public and private roles, they have to deal with the worst of both worlds. The private sector sees ports as public bodies, and as such does not believe ports should earn excess profits. This creates conflict when the port needs to raise their fees. The public sector sees ports as private, self-sufficient entities, and "wants them to go away" (G. LaRue, telephone interview, March 13, 2006). As a result, when the port needs to expand, there are no public funds to contribute, and the private sector is suspicious of fee increases.

Discussion during an interview revealed a third way that the governance structure of the port authorities may be negatively impacting cruise competitiveness. When designing and building a new cruise terminal, public ports tend to build large, iconic structures that are centrally located in the city where land values are high, but city attractions are available. San Francisco's cruise terminal development is an example of this, as is Seattle's Bell St. terminal.

In comparison, where cruise lines are required to build their own terminal, they functional facilities on low value land. For example, in 2004 Royal Caribbean Cruises Ltd. opened Cape Liberty Cruise Port in New Jersey (Garrison, L. 2004). This terminal was opened to serve as the homeport for their largest ships, which are too large for the terminals in New York. The terminal was set up in pre-existing structures on an abandoned naval base. The facility has only functional amenities, it is less than 10 miles from the airport, and is designed to get passengers from the airport and on to the cruise a quickly as possible. It also has high customer satisfaction ratings; customers appreciate that there is no congestion to get there and they are processed quickly (G. Wirtz, personal interview, February 23, 2006).

Vancouver has over invested in cruise facilities. The port started studying the optimal investment in cruise facilities in the 1990's and spent many years in the planning stages. After extensive market analysis, they determined that four berths with one overflow would be the optimum for the market. The returns from the added investment in the Canada Place third berth were expected to come from full utilization of the berths, seven days a week, as the port anticipated the monopoly situation to continue. When Seattle joined the market, the cruise lines that had been sailing midweek from Vancouver switched to weekend sailings from Seattle (G. Wirtz, personal interview, February 23, 2006). The possibility of Seattle providing significant competition was not considered in the modelling.

Information obtained during another interview raised questions about how well the Canadian port system fosters innovation and proactive action. When asked if he could comment on any lessons that could be drawn from the port model used in New Zealand, which is known to be very innovative and efficient, an official at the Association of Canadian Port Authorities replied that he was too busy worrying about Canadian ports to think about theirs. Although this does not directly speak to levels of innovation at the port authority level, it raises questions for future research.

4.3.4 Summary

Table 7 Summary of results of variables tested in hypothesis three

Governance	Relationship with host municipality	Increase market share	Supported
	Risk of Capture	Decrease market share	Supported
	Local autonomy	Increase market share	Supported

As summarized in Table 7, there is support in the evidence for all variables considered under this hypothesis. The relationship with the host municipality has impacts on market share through several avenues, as do risk of capture and local autonomy. The implications of these findings are discussed in chapter five section three.

5 Discussion and Implications

The previous chapter presented the available data used to test each hypothesis. This chapter provides a discussion of the findings under each hypothesis. It then presents conclusions and implications of the results on public policy.

5.1 Hypothesis 1 – Market Competition

The first hypothesis suggests that the loss of market share experienced by the Vancouver cruise sector is a consequence of market conditions resulting from a shift in technology such that Vancouver Port authority no longer had a monopoly in the seven-day-round-trip Alaska cruise market. When a second competitor enters a market, it is reasonable for Vancouver to lose some of the market share. However, the evidence shows that Seattle has been able to capture all market growth, as well as capturing a portion of Vancouver's business. If the trend levels out and Vancouver's passenger levels stabilize, then it is unlikely that the decline is related to factors other than the market adjusting to the new competitive conditions.

At this point, there is nothing to indicate that the passenger decline will stop. Vancouver has had very high passenger satisfaction ratings from independent review sources, suggesting that they are competitive in terms of service. This has not prevented passenger levels from dropping below the proportion expected based on capacity. The data indicates that Seattle's entrance to the market was the catalyst for the decline. It also suggests that there is more involved in the process than just the readjustment of a commercial market. The evidence does support this hypothesis, but there is evidence that there is more contributing to Vancouver's decline than just the market changes.

5.2 Hypothesis 2 – Financial Tools

This hypothesis is designed to test whether the commercialization process undertaken with the Canada Marine Act constrains the ability of the Vancouver Port Authority to recover the costs of investment in the cruise terminals, thereby restricting the ability to compete with Seattle.

The review of the literature indicates that Canada Port Authorities do have less access to other avenues to generate revenues than do their U.S. competitors. The planned expansion of the Port of San Francisco cruise terminal has been in the design phase since 1998, it is expected to finally move forward in the next year, and is able to so solely because of the revenue generated from leasing condominium and office space. In contrast, the Port of Halifax was not able to successfully compete in the bidding process for a major container terminal because under CMA restrictions, it would have only been able to raise one fifth of the required funds. Similar to the experience in Halifax, the Port of Vancouver, while able to make positive revenues in terms of operation costs on their cruise terminals, is not able to recoup the costs of construction that is necessary for the success of those terminals.

There is some uncertainty as to how much of the inability to recover losses due to construction and depreciation, is directly caused by the CMA, and how much is due to organizational impacts. The CMA and letters patent do not completely disallow investment in ancillary businesses. If there was a business case for doing so, the board could choose to invest in other activities, however, the port is not able to compete directly with other corporations because their federal, non-profit status give them an unfair advantage. As a result, they must do so through subsidiary corporations. Subsidiary corporations must cover their own overhead costs and the returns to the port are similar to that of government bonds.

The financial analysis verified that when 'indirect costs' such as administration, construction, and asset depreciation are included in the cruise terminal accounts, the terminal improvements do not pay for themselves. It also indicates that, while the Vancouver Port Authority continues to make a profit, they are experiencing decreasing operating income. There is, however, no evidence that any of the financial variables directly impact competitiveness of the cruise sector. None of the independent variables examined, operating income, operating margin, debt, stipend or the borrowing limit, provide direct support for the hypothesis. As expected, when the CMA came into effect, the costs to the port increased, however, operating revenues also increased, in fact by more than the costs. That trend seems to be changing, however there is no evidence directly linking the decreasing income to the CMA financial restrictions. It is possible that the financing options impact indirectly, by affecting the decision to invest. This is more difficult to capture and would require extensive interviewing and further analysis to capture.

Finally, it is possible that the financial factors do not impact the competitiveness of Vancouver's cruise terminals, simply because Vancouver is Canada's largest port and is profitable. Smaller ports that have a harder time financially may face greater pressure from the stipend and borrowing cap. That would not be reflected in this study.

5.3 Hypothesis 3 - Governance

This hypothesis is designed to uncover whether federal control over port authorities and other aspects of port governance, prevent CPA ports from effectively competing with ports controlled at the local or regional level. The review of the literature indicates that Canada Port Authorities continued to be impacted by their affiliation with the federal government, decreasing the functional extent of commercialization. There is a lot of support for the suggestion that further devolution is better. The comparison with Seattle does raise questions about how direct the impact on competitiveness is. Despite their municipal governance, the port of Seattle is no more able to commercially recover their capital investments than is the port of Vancouver. They benefit from the ability to levy taxes as a municipal authority.

The main argument for devolution is that it allows the port to react quickly to changing circumstances and have the ability to act in their own best interests. One of the main reasons that local governance is so important for ports in Canada, stems from geography. Vancouver is over 3500 kilometres in a straight line from Ottawa, the seat of its governance. The sheer distance presents barriers to effective communication, as does the time difference and regional disparities between port provinces.

Port of Seattle, however, provides mixed evidence. A municipality in its own right, the port is neither self-sufficient, nor does it seem to focus on its commercial health. Ports in the U.S. do not have the emphasis on commercial goals that are already present in Canadian ports. Regardless, Seattle has been able to successfully capture cruise business from the port of Vancouver, illustrating that some aspects of their operation provide a competitive advantage.

The local nature of the U.S. ports and those in Washington specifically does seem to promote greater ties to the community, as indicated by the numerous local initiatives undertaken by the Port of Seattle. The CMA lists meeting local objectives as a desirable goal, but interviews revealed that the VPA has not been able to foster the necessary relationship with host municipalities. This has an impact on customer satisfaction and competitiveness, as well as taxation. Seattle is able to raise money though taxation, while the VPA must pay taxes to local governments. Property taxes are part of the considerations regarding governance. The differential taxing regimes faced by Vancouver and Seattle are a result of differences in governing structures.

The restrictions on land acquisition provide another illustration of ways the governance limits the ports ability to act quickly. Given that port lands are by necessity waterfront lands, when the port is on a city, such as Vancouver, it is highly unlikely that any potential lands suitable to port development and expansion could be acquired for less than the $250 000 limit. This effectively requires all significant acquisitions for a port to go through a more rigorous process than other, much larger acquisitions by other departments.

Finally, the Baltazar and Brooks model provides theoretical reasoning for why governance can impact competitiveness. Using the matching framework model, the information in the SCOT report and CMA review suggests that the federal control over VPA board appointment may in fact limit the ports ability to separate national and public goals from market requirements. There is further support from this in the interviews, where it was speculated that a corporatized port would not invest in cruise terminals that provide public amenities.

5.4 Conclusions

The findings from each of the three hypotheses are summarized here in Table 8.

Table 8 Summary of results for all hypotheses

Hypothesis	**Variable**	**Hypothesised relationship** (with increase in variable)	**Supported or unsupported?**
Market Factors	Number of competitors	Decrease market share	Supported
	Capacity	Increase market share	Inconclusive
	Competitor capacity	Decrease market share	Inconclusive
	Exchange rate	Decrease market share	Unsupported
Financial tools	Operating income	Increase market share	Unsupported
	Operating margin	Increase market share	Unsupported
	Debt	Decrease market share	Unsupported
	Stipend payment	Decrease market share	Unsupported
	Non-operating revenue	Increase market share	Unsupported
Governance	Relationship with host municipality	Increase market share	Supported
	Risk of Capture	Decrease market share	Supported
	Local autonomy	Increase market share	Supported

The first and third hypotheses are supported by the evidence gathered in this report. Vancouver began losing market share because Seattle entered the market. Once in the market, Seattle was able to capitalize on their competitive advantages, including greater local autonomy, better relationship with local government, subsidies and tax dollars. Exactly how each of these variables interacts with market conditions to create a competitive advantage should be the focus of future research. For Vancouver to stop this downward trend, and recapture any of the market from Seattle, they are going to have to find a way be competitive.

This report has thus far focused entirely on the Vancouver cruise sector, and has found that aspects of the governing structure are interacting with market changes correlated with a decline in competitiveness. Policy actions to address the impacts cannot be done in isolation from the rest of the port. As outlined in the introduction, the cruise sector can be considered 'the canary in the mine'. It is sensitive enough to indicate how the legislation impacts the port authority, before the impacts are obvious on other sectors. Impacts that will positively affect the cruise sector will have similar affects on the port authority as a whole.

6 Options for Policy Improvement

The previous chapters investigate the problem of declining cruise passengers at the port of Vancouver. Based upon the findings this chapter presents five options for addressing the problem. It then stipulates the criteria against which each alternative will be measured.

6.1.1 Option 1 – Status Quo

The data suggests that while there is some evidence governance may be having an impact on port competitiveness, there is reasonable evidence that much of the decline that has been displayed in the cruise sector is the result of market readjustment. As a result, the status quo remains a viable option at this time.

6.1.2 Option 2 – Modified Status Quo

In light of the fact that the Canada Marine Act Review committee made several recommendations in 2003, this option incorporates some of these recommendations. The government has not yet acted on the report, which, in total made seventeen recommendations specific to the Canadian Port Authorities. The modified status quo option would have the government to adopt all of the 2003 recommendations related to governance and finance, including the following changes.

- allow the government of Canada to invest in infrastructure where there is a sound business case and the investment is beyond the ability of the ports current finance will allow

- clarify that CPA ports are allowed to participate in government of Canada programs that are available to other Canadian companies

- the government of Canada make payment in lieu of taxes on land it owns under the CMA

- calculate the stipend as a percentage of net income

- CPA board directors be nominated from individuals on the list of nominees recommended by the user nominating committee

- allow a person who is a director, officer or employee of a user to sit on a CPA board of directors.

- simplify the application and approval process for borrowing limit changes to allow projects to be undertaken in a timely manner

- consider providing tax-exempt bonds similar to those used in the United States, as well as accelerated capital cost write downs for infrastructure facilities provided by the private sector

6.1.3 Option 3 – Increased Decentralization of Port Control

This option maintains the general structure of the ports, while incorporating more of the components initially envisioned under the 1995 National Marine Policy. The data indicated that the governance structures and ability to respond to market conditions has an impact on cruise sector competitiveness. This package of adjustments incorporates governance related recommendations left out of the CMA when it was eventually passed in 1998.

- Board members nominated directly by user community, impacted municipalities and provinces, as well as the federal government

- Debt will be determined by private sector lenders, the borrowing limits in the letters patent will be removed, and measures will be taken to ensure that the federal government cannot be held liable for debt incurred by port authorities

- Ports delegated full authority to lease, contract, and acquire or dispose of land

These change to the status quo should not disrupt stability, changes in the nomination process would be phased in as new board members are appointed. The federal government has already removed itself from liability for funds borrowed by port authorities, but has continued to be concerned about liability. Removing the borrowing limits may or may not directly help the port compete, but it will provide the flexibility and further autonomy that was a primary goal of the National Marine Policy.

6.1.4 Option 4 – Corporatization of Ports

Corporatization is "the transformation of public sector organizations into public companies, the shares of which are held by government." (Haralambides, Ma & Veenstra, 2005, p. 17). It does not require full privatization, where the public sector port property and assets are sold off to the private sector. The government may retain ownership, but the port administration operates as a fully independent for-profit enterprise. The purpose of corporatizing is to further instil commercial discipline by shifting the bottom line from cost minimization to profit maximization.

Based on the model successfully applied in New Zealand, port authorities would form boards to implement the changeover to port companies. The Ports of Auckland Ltd, which acts as New Zealand's hub port (Ports of Auckland, 1996, p. 12), is considered a very successful port. It is driven, aggressive and proactive. They use foresight and are always looking for better approaches and ideas (R. Fitzgerald, personal interview, February 28, 2006).

Under the New Zealand model, port companies are publicly traded companies, where ownership rests with local and regional governments, but up to 49 percent of shares may be sold. They are subject to same taxation requirements and obligations of private firms; port companies have a clear commercial mandate, and are accountable to their shareholders and the public. At the same time, the companies are also considered public companies; they are audited by the auditor general and must make annual reports available to the public. This brings together both private sector and public sector accountability without restricting the ports ability to act. As a for profit corporation, the port is able to compete fairly and freely with other companies. The ports would be able to capture returns on investments that are realized through indirect industries, such as tourism related benefits from cruise terminals.

Land suited to port uses is rare, and an endangered commodity in many port cities, this is because waterfront properties are in demand for residential use. To ensure that land continues to be available for port uses, port lands would have to be protected under a federal land reserve act. Otherwise, there is a risk that in a profit driven environment, lands will be sold to their highest value use for short-term gains, eroding the port land base. It may also be necessary to create a transportation infrastructure reserve to protect the road and rail corridors that are necessary to the ports.

6.1.5 Option 5 – Devolution to Municipal Level

Under the CMA, ports classed as non-commercial, those that were not financially self-sufficient were closed, devolved to the provincial or municipal level, or sold to the private sector. In the National Marine Policy this transfer was justified by the assertion that local management will allow them to be operated "in a manner more responsive to local needs, with lower costs and better services" (Transport Canada, 1995, p. 5). The federal government retained control only of those ports that could generate revenues for the government, and northern remote ports kept open to fulfil other federal obligations to maintain those ports as supply lines for remote communities.

In this option, the federal government would continue to support the northern and remote ports, and would continue to set standards for safety. Based on the same principal used to justify devolution of the smaller ports, the Port Authorities would be delegated municipal authority. Thus, they would not be taxable by the surrounding municipalities, but would have to negotiate agreements with them for the provision of services, such as water and sewage.

These municipal port authorities would be governed by boards similar to what is in place now, although members would be appointed directly by the identified stakeholders, instead of the minister. There would continue to be board members appointed to represent industry, the municipalities, and the affected provinces. The number of representatives of each would vary by port, depending on the number of adjacent municipalities and provinces dependent on that port.

Transferring the ports to the municipal level allows the ports to engage more broadly in regional economic development in conjunction with the host municipality. It also supports partnerships with local tourism associations, and provides opportunity for the port to engage in partnerships where it can capture some of the dispersed benefits from cruise terminal and other investment.

To protect the land base, the port lands would need to be protected in a federal land reserve. As with the previous option, it may also be necessary to create a transportation infrastructure reserve to protect the road and rail corridors that are necessary to the ports.

6.2 Analytical Framework

All policy options are evaluated according to the criteria listed in the chart below. A summary of the outcomes of the evaluation is presented in chapter 8, along with a written description of how the evaluation was done and the ranking that each option received on each criterion. This section provides a description of each of the criteria listed below.

Table 9 Summary of criteria for evaluation

Objective	Criteria	Indicator
Fits with policy objectives of NMP	Affordable, efficient and safe, fair competition based on transparent and consistently applied rules, shift the financial burden from taxpayer to user, infrastructure and services based on user needs, continuation of remote ports.	Does as well or better than the status quo on each of the five main goals
Social benefits/costs	Increased net social benefit	More identifiable benefits than costs
Effective	Improved competitiveness	Addresses identified factors
	Please stakeholders	Addresses stakeholder concerns stated in submissions to the CMA review
		Positive interview responses
Political feasibility	Could the option get passed in the legislature?	Fits within the government values and objectives
Distributional Impacts	Indicating the balance of how costs and benefits are distributed	Who will benefit? Who pays the costs?

6.2.1 Fits Within Objectives of National Marine Policy

The national marine policy has laid out certain criteria for the national port system to meet. Until a more broad analysis can be done on these objectives, they remain the objectives of port policy and any recommended policy changes should fit within that framework. There are five distinct policy goals of the National Marine Policy: building a port system that is affordable, efficient and safe, fair competition based on transparent and consistently applied rules, shift the financial burden from taxpayer to user, infrastructure and services based on user needs, continuation of remote ports. To be ranked high in this category, an option must meet or exceed the status quo in all five of these policy goals. To receive a score of medium, an option must meet or exceed three or four out of five goals. Alternatives that meet or exceed the status quo on one or two of these goals are considered low.

6.2.2 Social Costs/Benefits

This criterion will weigh the potential for social costs and social benefits in each option. Options that are very likely to produce strong net benefits to society are rated as high. Those that are medium have reasonable potential to produce moderate effects, and those that have some likelihood of producing some more social benefits than cost will be rated low. If the option is likely to impose net social costs, it is rated negative according to the same scale.

6.2.3 Effective

A very important criterion in any policy decision is 'will it work?' For this report, effectiveness is evaluated in two ways. First, will the option improve competitiveness? Second, will stakeholders be pleased with the option?

6.2.3.1 Improved Competitiveness

If the research strongly suggests the option will have a strong impact on improving competitiveness is scored high, if there is less certainty as to the impact, but it is likely to be fairly strong, it is rated medium. If there is some evidence to suggest any improvement, either strong evidence of slight improvement or weak evidence of strong improvement the option is scored low. If an option was believed to have a negative impact on competitiveness, it was discarded, as competitiveness is the focus of this study.

6.2.3.2 Pleases Stakeholders

Stakeholders comprise the community that is impacted by any changes in legislation. They have been consulted extensively in the past, and continue to play a role in policy changes. This criterion is evaluated based on the results of past industry consultation, including the RCOT, SCOT and CMA review reports, as well as information from the interviews with staff at the VPA and other industry experts. If the option fits with a majority of stakeholder suggestions it is scored high, if there are mixed opinions in the literature, but some support, it is scored medium. Finally options without much known support are ranked low.

6.2.4 Political Feasibility

At the time this report is written, Canada has a new minority federal government that has not yet released a speech from the throne or a formal agenda. This criterion is scored based on current political climate and consistency with the objectives of the ruling party. However, there are many unknowns in this realm and scoring is quite subjective. Options that have a high likelihood of strong support are scored high, those with a reasonable likelihood of being supported if proposed in the House are scored medium. For those options for which support is not likely or is not known, the score is low.

6.2.5 Distribution of Impacts

In most public policy decisions, there is a trade off between gains and costs. This criterion is used to identify what groups of people will experience the gains, and which will experience the costs. The following list of stakeholders has been identified as those likely to gain or lose in any of these policy changes: port authorities, Canadian port users, port operators, federal government, local government, board members, and taxpayers. Where an option imposes losses or gains on any of these groups it is identified in this category. If a group is not impacted, it is not mentioned. This category is not used to evaluate the policies, but is included to inform decision makers.

7 Analysis

The report has studied the impacts of the *Canada Marine Act* Legislation on Canadian Port Authorities through a case study of the Vancouver Port Authority's cruise terminals. The analysis of the options is done from the perspective of the federal government, as it is the body that is currently responsible for the port authorities. It is also the body responsible for adopting and implementing these changes. Where ever possible and relevant, impacts are disaggregated to better inform the trade offs to be made. For greater clarity, the potential evaluations within each framework have each been assigned a score. High negative is scored as one, medium negative is scored two, low negative is scored three, low is four, medium is five and high is scored as six. This is done to clearly indicate the differences in alternatives.

Table 10 Summary of analysis results

Criteria	Option 1	Option 2	Option 3	Option 4	Option 5
Fits objectives of NMP	High (6)	Low (4)	High (6)	High (6)	Low (4)
Increased net social benefit	Low negative (3)	Low negative (3)	Low/medium (4.5)	Low/medium (4.5)	Low (4)
Improved competitiveness	Low/ medium negative (2.5)	Low (4)	Low/Medium (4.5)	Medium/high (5.5)	Medium (5)
Please stakeholders	Medium negative (2)	Medium/high (5.5)	Medium (5)	Medium (5)	Medium (5)
Political feasibility	Medium (5)	Low (4)	Low/medium (4.5)	Low (4)	Low (4)
Total	18.5	20.5	24.5	25	22

7.1 Analysis of Option 1: Status Quo

7.1.1 Fits Within Objectives of National Marine Policy

An option is required to do as well or better than the status quo on at least one of the five goals. To be consistent, this option is rated high as it fulfils the criterion of meeting the current standard on all five goals. The port authorities will remain fully funded by borrowing and user fees; rules will continue to be applied somewhat consistently and transparently across port authorities; the current balance of taxpayer and user costs will remain; infrastructure will be determined by market and user needs.

7.1.2 Social Costs/Benefits

In the short-term, this option will be neutral in terms of social costs and benefits. In the longer-term, loss of cruise traffic and the diversion of passengers and freight through US ports will impose social costs, including lost tax income in tourism, service and transport industries, as well as decreasing returns to the federal government in the form of the stipend from ports. This option is rated as low negative.

7.1.2.1 Improved Competitiveness

VPA is currently losing competitiveness compared to Seattle. The evidence from the case study suggests that they will have difficulties regaining competitiveness in the international market without some changes to the CMA. This option is rated as low/medium negative because it does not address any of the competitive issues.

7.1.2.2 Pleases Stakeholders

Stakeholders from across port related industries expressed strong desire to see changes to the CMA. There was not a strong lobby for keeping things as they are, and ports have been waiting since 2003 to see how the government will act on the recommendations of the CMA review. As a result, a choice to maintain the legislation as it is will not likely be popular with stakeholders. This option is rated medium negative on this criterion.

7.1.3 Political Feasibility

Trade and ports are not one of the governments priorities on the Prime Ministers website, nor are related issues. The current government has appointed a Minister in charge of the pacific gateway, which, although not directly related to ports, does affect the ports in British Columbia. As ports are not considered a national priority, there is likely support for maintaining the status quo at this time politically. This option is rated as medium for political feasibility.

7.1.4 Distribution of Impacts

Leaving the legislation as it is has a neutral distribution of impacts for the time being. The benefits and costs are expected to both fall on the users of the port authority. The data has indicated that the legislative framework does not support long-term competitiveness in the international market. Without change, there is real possibility that port authorities and Canadian port users will suffer costs, and there will be no gains.

7.2 Analysis of Option 2: Modified Status Quo

7.2.1 Fits Within Objectives of National Marine Policy

This option meets or exceeds two of the five policy goals, and is scored as low accordingly. It will not impact safety, and is unlikely to have much of an impact on efficiency, but should help to make the system more affordable, particularly for smaller port authorities. Although the policy calls for investment only where there is a sound business case, it is possible that investment will occur for political reasons, as such it has the potential to decrease the consistency with which the rules are applied. The current legislation places the entire financial burden on users, allowing for federal investment will shift some of that burden back onto taxpayers. The additional funding has the potential to lead to excessive investment. For example, if the federal government is running a program that provides funding for any Canadian business that engages in local development projects, there is incentive for the port to make investments that are not focused entirely on user needs. Finally, this option will not have an impact on the continuance of the remote ports.

7.2.2 Social Costs/Benefits

There will be decreased returns to the government from the change in the stipend calculation, and increased costs as the federal government becomes responsible for paying the PILT on un-leased port lands. There was little evidence presented to suggest that these measures will result in improved competitiveness and associated social benefits. Simplifying the approval process should reduce costs by reducing the time and resources required to make an application move forward with a proposed project. This may result in some offsetting social benefits. This option is rated low negative for social costs.

7.2.3 Effective

7.2.3.1 Improved Competitiveness

There was no evidence found to support the assertion that the stipend has much of an impact on port competitiveness. There is minimal evidence that the PILT reduces incentive to further investment in port facilities. Allowing the federal government to invest in port infrastructure could improve competitiveness, but it could also create a dependence on federal funding similar to that which led to the changes in transport policy after the MacPherson Commission. It should however help in competing against subsidized ports. This option is rated as low.

7.2.3.2 Pleases Stakeholders

These recommendations are based on stakeholder submissions, although they do not go as far on some points. For example, stakeholders would prefer that the borrowing limits be removed entirely, but the recommendation does not go that far. Stakeholders are still likely to be pleased with the opportunities for federal investment, as well as the change in stipend calculation and PILT payment. This option is rated as medium/high.

7.2.4 Political Feasibility

Adopting this option would increase budgetary commitments on a non-priority area. Expectations are currently that the government will have trouble meeting the commitments they have already made, and the Canadian political climate is not generally in favour of returning to deficit spending. It is unlikely that that there would be much support for such an option at this time. This option is rated low.

7.2.5 Distribution of Impacts

Under this option, there will be some gains to the port authorities and port community. This will come at the expense of taxpayers, as resources are redirected from other programs, or taxes are increased to cover the financing changes.

7.3 Analysis of Option 3: Increased Decentralization

7.3.1 Fits Within Objectives of National Marine Policy

This option meets or exceeds five of five goals and is accordingly rated high. Safety and affordability should not be impacted, and efficiency will be improved by removing the levels of red tape the port authorities must go through to raise the borrowing limits or acquire or dispose of lands. This option should increase fairness but should not favour any port authority over another; rules will continue to be transparent and consistent. This option will not add to tax payer burden, it may relieve it slightly by reducing the role of Transport Canada in port governance. Having board members appointed directly by user groups will increase user input and allow the ports to act more freely to meet user needs. Finally, this option will not impact the remote ports.

7.3.2 Social Costs/Benefits

This option should have a slight impact on reducing federal costs in administering applications to change the letters patent to change the land under a port authorities jurisdiction or to change the borrowing limit. Increases in port competitiveness from these measures would lead to increased social benefits in the form of increased tax revenues in ancillary markets such as tourism and in-land transportation, as well as the stipend. This option is rated low/medium.

7.3.3 Effective

7.3.3.1 Improved Competitiveness

The evidence suggests that by making the internal governance system more in line with the market oriented objectives of the port authority, it will be more able to compete. Greater ability to react to local changes, and more direct user input with less chance of politically motivated decisions will increase competitiveness to some degree. According to the Executive Director at the ACPA, the board appointment process is relatively representative of user groups and making this one step more direct will not change that. It is not clear how strong of an impact these changes will have, but because there are several avenues that should increase competitiveness, this option is rated low/medium.

7.3.3.2 Pleases Stakeholders

There is strong support for removing limitations on the CPA's, including the borrowing limits and the land purchases/disposal, from the stakeholders. Port users gaining more direct representation on the boards will also support the change in board appointment. Support from current board may not be strong, unless things have changed since 1996 when this was last considered. This option is considered to have medium support.

7.3.4 Political Feasibility

There are indications that the new political regime is less centrist than previous governments. This option does not increase government costs, and it should not conflict with government priorities. Although support is not guaranteed, it is likely. This option is considered low/medium.

7.3.5 Distribution of Impacts

Increases in competitiveness should benefit the port community and generate federal revenues. The Federal government will also benefit marginally from decreased administrative costs. This option will induce costs on the current board members as it may reduce the likelihood that they will be appointed again.

7.4 Analysis of Option 4: Corporatization of Ports

7.4.1 Fits Within Objectives of National Marine Policy

This option meets five of five goals and is ranked high accordingly. Greater commercial discipline should produce efficiency gains, as it has in its application in New Zealand. Safety and affordability should not impacted, in addition to being accountable to shareholders, ports will continue to be publicly accountable. All port authorities would be subject to the same legislation; there is room for regional variation to allow for improved competitiveness, but it does not reduce fairness or transparency. This option will increase private investment in port operations, this suggests it will not place greater burden on taxpayers. Port companies are profit driven as such they are not going to waste money by investing in infrastructure or services that are not needed to continue to attract business. Finally, this option will not impact remote ports.

7.4.2 Social Costs/Benefits

Corporatized ports will pay regular property taxes, rather than PILT, and will also be subject to corporate income taxes. Corporate ports will not pay the federal stipend, however, any federal, provincial, regional or municipal governments that invest as shareholders will still receive dividends. There will also be social gains from increased international competitiveness. Interviews with port officials suggested that profit driven ports would be more likely to make minimal investments in local facilities than a publicly owned port. There will be some on-going social benefits, but there is also potential, though likely low, for some social costs in local port areas. This option is rated as low/medium due to uncertainty of the potential off setting costs.

7.4.3 Effective

7.4.3.1 Improved Competitiveness

The evidence indicates that changes making the governing system more responsive to the market will improve competitiveness. It will further include commercial discipline and make ports accountable to shareholders as well as the public. This model has shown that it can lead to competitive improvements, although Canadian ports are already fairly competitive and it is difficult to determine if the impacts will be as dramatic, there is certainly potential. There is evidence that this model would allow ports to adapt to changes in the market to maintain competitiveness. Finally, one of the reasons that the port authorities cannot directly invest in other businesses is that they would be unfairly competing with other businesses that pay taxes. These port companies would be able to invest in related businesses to receive additional benefits from the cruise sector. This option is considered medium/high.

7.4.3.2 Pleases Stakeholders

This model is similar, but goes a further than the airport model, (suggested by some in 1995) by making the company publicly traded. There was some support for more commercialized management in 1995 when the national marine policy was designed. At the time, it was believed that the port industry did not need to go that far to make competitive gains, and the incremental step of commercialization was chosen. There may be some opposition from port authorities, but port users, as well as impacted municipalities are likely to support it. This option is rated medium, as there is likely support from some areas, but potential for opposition as well.

7.4.4 Political Feasibility

There is a reasonable possibility of this option being supported politically. There is however, potential for some opposition to the potential for this to open Canadian ports up to foreign investment. For example, in the U.S. a company from the United Arab Emirates has invested in a company that operates several ports. This has raised national security concerns among some members of the senate and congress, (Oziewicz, 2006) however, the same company is purchasing the operator of one of the container terminals in Vancouver and there has been very little to no concern (Freeze, 2006). This option is rated low/medium accordingly.

7.4.5 Equity

The port authorities, and local governments should benefit from this change. It is possible that these benefits could come at a cost to the port users. Profit maximizing behaviours may increase fees. Unless port users are shareholders, they could potentially have even less representation on the board. This however, could be balanced out in the gains from competitiveness.

7.5 Analysis of Option 5: Devolution to Municipal Level

7.5.1 Fits Within Objectives of National Marine Policy

This option meets or exceeds two of five policy goals, and is accordingly considered low. There is some room for concern that municipal ports could potentially be less efficient, if municipal development goals are pursued over commercial goals. Though this is not necessarily the case, it is possible. It is likely that there will be less consistency across ports, as the local nature leads to differential application of the rules. The balance of taxpayer to user cost burden should not shift; the ports will continue to be financed by revenues and private lending. There will be an adjustment as the category of taxpayer that finances the government administration shifts from national to municipal. Infrastructure should continue to be based on user needs, although there is some concern that investments could be made to spur the local economy, this is arguably already occurring with federal investment in the Prince Rupert port authority. Finally, this option will not impact the continuance of remote ports.

7.5.2 Social Costs/Benefits

Municipalities will be forgoing a large segment of their tax base under this option, but through agreements they will be reimbursed for the costs they incur to provide services to the port. If there is any additional tax revenue lost to the municipality is not a social cost, it is a transfer. Ports in BC argue that property taxes beyond those that cover the costs of services are used to subsidize residential taxes and keep them artificially low. Shifting this cost from the port to residential taxpayers is a transfer, not a net social cost. The anticipated increases in competitiveness will have some social benefits. These will come primarily from growth in business and employment in port related sectors including transportation and services. The incremental social costs from the modest efficiency gains will likely be minimal; as such, this option is rated as low.

7.5.3 Effective

7.5.3.1 Improved Competitiveness

Similar to option 3, this option can improve competitiveness by improving the ports ability to react to changes. The literature has provided evidence that localized authority can improve competitiveness by increasing responsiveness to change. It will allow for greater involvement in ancillary services and increased captured benefits. It should also remove business decisions from political consideration. However, it may open up the port further to local political considerations. This option is considered medium.

7.5.3.2 Pleases Stakeholders

An option along these lines has not previously been considered, so it is difficult to assess. The similarity to the old harbour commissions suggests that there may be some support. The 1995 review of the marine transportation system suggested that harbour authorities were content with the degree of freedom they had. An interview with a member of the port authority revealed that most people do not really consider this option, and that accountability was the biggest problem with the harbour commission system. Provided there is public accountability for their actions and spending, there is potential for support. This option is considered medium on this criterion.

7.5.4 Political Feasibility

There is little to no information about how feasible this would be. There are some similarities to how the harbours commissions were run under the *Harbour Commissions Act*, except that those were heavily subsidized. They were eliminated because they were costly and unfairly competed with the Port Corporations. This option would not rely on subsidies, they continue to act as self-sufficient non-profit entities, but the similarity may raise concerns. There is also no indication that the municipalities would want to take on the ports, particularly if the land was held in a port lands reserve. This option is rated low due to the uncertainties.

7.5.5 Distribution of Impacts

The federal government will gain from a slight decrease in administrative costs, but it will also lose the income from the stipend. The municipality could potentially lose income from property taxes, if it is true, as the VPA suggests, that they pay more in property taxes than it costs the city to provide services. Making the port a quasi- municipal body would reduce tax base of those municipalities that currently host ports. Port authorities will gain from increased local control, and decreased payments to other levels of government.

8 Recommendations and Conclusions

The evaluation matrix reveals no clear winning solution. Options 3 and 4 receive very similar evaluations and rank somewhat higher than the other three options. Option 4, corporatization, is anticipated to be more effective, although it could face difficulties building political support. Option 3, however, has faced obstacles in the past, and was ultimately not implemented in 1995. This was attributed mainly to stakeholder and political opposition.

Based on the evidence examined in this report, option 4 corporatization, is recommended. It has the potential to provide the most competitive gains, and it may also provide the most hope for reconciling the public port dilemma. This option provides the most opportunity to address all of the obstacles that were related to the current governance system. It allows greater flexibility, has potential for more municipal involvement, and allows greater market influence. It will also resolve the internal inconsistency identified in Canadian ports by Baltazar and Brooks (2001). This model helps to refine the organizational goals and align them with market needs. This will increase consistency and clarity within the port system.

Initially, this option appears to represent a somewhat dramatic change from current policy. In practice, it is not a departure from the ongoing trend of movement towards greater commercial autonomy. Under the current port authority system, there is private involvement in the operation of port terminals. This option takes that one step further, providing the option of private involvement and investment in port authorities. Majority control will remain in public hands, and the number of shares sold in the private sector can be less than the 49% offered in the New Zealand example.

Port authorities and stakeholders should be included in implementation planning and actions. Prior to implementation, there should be extensive consultation with the port community stakeholders to build support and provide opportunity for input and feedback. Their involvement in the process will help support a smooth transition to the new model. It will also increase the institutional support necessary to ensure substantive changes to structure and strategy.

In applying this model to all Canadian Port Authorities, it is necessary to consider how it will affect smaller ports. Smaller ports should see benefits through simplification of goals they are expected to meet. It is possible that those ports currently experiencing financing constraints will be less able to attract private investment than larger ports. This may place them at a disadvantage, particularly if they compete against larger ports. Further exploration will likely find that this complements the international trend in shipping towards large hub ports and smaller regional ports. It is difficult to assess any regional or distributional impacts this might have.

If the government does not choose to adopt this recommendation, steps must be taken to address the issue of governance and competitiveness that have been outlined here. Care must be taken to clarify organizational goals and mandate. Also attention should be given to ensuring that there are clear, effective lines of accountability. Transport Canada should work with the port communities to also consider ways to address alternative funding sources and ability to capture the gains from investment.

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