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Casting Off: How Ottawa Can Maximize the Value of Canada's Major Ports and Benefit Taxpayers

by
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- From Vancouver, to Montreal, to Halifax, Canada's largest ports are overseen by Canada Port Authorities (CPAs), which operate at arm's length from their owner, the federal government. CPAs' responsibilities include managing the leases of different terminal operators, providing common safety and navigation services, and issuing permits for new construction. CPAs fulfill an important public-sector responsibility in facilitating marine trade. They are also valuable assets that generate significant revenues.
- Currently, the federal government is considering involving private capital in the ownership of Canada's largest ports. The potential equity value ranges from $2.6 to $3.4 billion.
- Due to the competitive landscape facing ports, port users are unlikely to see significant changes in pricing and customer experience if the federal government chooses to involve private capital.
- The federal government should restrict CPAs from investing risk capital and instead rely on private capital to finance expansion, and harvest some of the value of its equity stake for investment in other priorities.

The Canada Port Authorities (CPAs) were created in 1998 to own and manage ports that have strategic significance, intermodal connections and financial self-sufficiency (Emerson 2015a). They already have a high degree of private-sector involvement. For example, the Vancouver Port

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Figure 1: Ownership of Canada's Ports

	Operating Model	# of Ports	% of Tonnage	% of Containers
Canada Port Authorities	▪ 4 largest Canada Port Authorities (Vancouver, Prince Rupert, Montreal, Halifax)	4	38 %	98 %
	▪ 14 other large Canada Port Authorities	14	24 %	2 %
Other Ports	▪ 29 smaller and regional ports owned by other levels of government or private sector	29	38 %	0 %
	▪ 21 remote ports retained by Transportation Canada	21	0 %	0 %
Total		**68**	**476 million tonnes**	**5.4 million Twenty-foot equivalent container units**

Focus of Study ■ Others

Sources: Author's calculations from Emerson 2015b, Transport Canada 2015.

Authority manages leases for 27 privately owned and operated terminals throughout the harbour (Port of Vancouver 2017).

The federal government is considering involving private capital in the ownership of Canada's largest ports – retaining Morgan Stanley to explore ownership options (Willis and Nelson 2016). In this E-Brief, I focus on the four largest Canada Port Authorities, which handle 38 percent of marine trade by tonnage, and over 98 percent of Canada's containerized traffic (Figure 1). My analysis suggests that the potential equity value of these four ports ranges from \$2.6 to \$3.4 billion. The other 14 Canada Port Authorities have similar operating models and would benefit from the same analysis. The operating models of Canada's other 50 non-Canada Port Authority ports are different and face different issues. These other ports are beyond the scope of this report.

The Role Ports Play In Our Trade Network

The CPAs are one link in the supply chains that characterize Canada's international trade. Interestingly, however, they are the last link that remains in public hands – the vast majority of trade is already facilitated by private companies. The CPAs operate in a highly competitive environment and have limited ability to influence total shipping costs from origin to destination. Understanding the CPA's role in this system is necessary to determine the federal government's public policy objectives for the ports.

A container imported from China to Toronto will travel by privately owned ship, be unloaded at a privately owned container terminal and travel to Toronto via a privately owned railroad. The CPA will collect a small fee

Figure 2: Relative Costs of Transportation Supply Chain

Stage	Shipping Line	Port Authority	Terminal Operator	Railroad
Ownership	Private	Public	Private	Private
% of Import Costs	48%	2%	11%	39%
		Total Port Costs		

Source: Author's calculations from Transport Canada 2010.

when the container is unloaded, and also serves as a landlord for the terminal operator. Of all the costs involved, total port costs paid to the CPA and the terminal operator are less than 13 percent of costs, while the CPA's share is less than 2 percent (Figure 2). One implication is that public investment to reduce the cost of port operations through enhancements or expansion would have little impact on overall costs faced in Canada's international trade, since substantial changes in CPA costs are still a small fraction of overall costs.

Further, ports are subject to intense competition. The primary axis of competition is between ports. Shippers[1] can easily shift volumes between ports on each coast, both within Canada and to the US. If a Canada-bound load is shipped first to the US, it will likely be transported first by a US railroad and then transferred to CP or CN Rail for delivery to a Canadian destination. Within ports, the Port of Vancouver has multiple competing terminals for containers and other commodities – a situation that is common at other ports on the US West Coast.

The terminals compete not only directly on price but indirectly as well because they can lower overall shipment costs by reducing the time ships must stay in harbour for unloading. Shorter unloading times through better infrastructure reduces the costs for shipping lines, or reduces the time it takes for goods to travel from origin to destination, reducing inventory costs for the end customer. Improvements on these dimensions let ports capture market share from their competitors The ports themselves have little market power: the shipping lines – their primary customer – have formed alliances, making the industry as consolidated as ever (Saxon 2016). As well, shipping lines are vertically integrating into port terminal ownership (Mooney 2017). This gives shipping alliances negotiating power to demand price reductions and other concessions from terminals.

1 I use shippers to refer to the end customer for transportation services – this could be an importer or exporter responsible for arranging transportation for a good from origin to the end customer.

The willingness of shippers to switch ports is demonstrated by high traffic volatility at individual ports. For example, Prince Rupert began container service in 2007, and in less than a decade has won a roughly 20 percent market share of containers unloaded on the Canadian West Coast (Transport Canada 2015). Market share routinely fluctuates amongst US and Canadian ports on the West Coast, with shippers shifting business to Vancouver during a 2014-15 US labour dispute (Kitroeff 2016).

These factors combine to create a highly competitive environment for port operators, which reduces monopoly concerns about involving private investment. Regardless of ownership, the port operator is forced to accept a price set by the market to a far greater degree than in other regulated or publicly owned sectors – like electricity, or airports.

The Federal Government's Role in Our Port System

The competition facing port operators reduces the need for public ownership of the ports to ensure fair pricing. Public ownership is most appropriate when there are real concerns about abuse of market power that cannot be addressed through regulation. For their part, CPAs are necessary coordinators of terminal leases, shared services and permitting – required roles for the federal government – but do not need to be significant investors of public capital.

Canada's port infrastructure is generally funded on a user-fee basis, although ports have also received federal infrastructure funding (Emerson 2015b). This policy is sensible – government subsidy would distort decisions made by shippers who would choose subsidized options with higher societal total costs with lower costs to the user. The CPAs charge tenants rents based on the fair market value of their land,[2] reflecting the user-fee policy. This policy should be continued.

CPAs face competition from American ports that receive subsidies from local governments. These subsidies do not require matching subsidies from the Canadian government to our ports. If Canadian shippers are indirectly subsidized (through lower prices) for using a foreign port then Canadians are on balance better off – this represents a transfer of resources from the local governments supporting the ports to Canadian shippers – and is not a rationale for a matching Canadian subsidy.

The private sector has demonstrated a willingness to finance incremental investment in needed capital projects. Therefore, the federal government should refrain from investing capital into commercial projects where expected demand is unclear – the private sector is willing and able to bear these risks. Canadian governments have a track record of systematically over-estimating demand in the transportation sector, resulting in overinvestment and wasted resources (Robins Forthcoming). Instead of redeploying the profits of a CPA's land rents solely into additional infrastructure at that port, they should be returned to the federal government's consolidated revenue fund and then allocated to our most pressing needs. These capital needs could be at that port, at other ports, for other infrastructure, or for other societal priorities.

2 They do negotiate over whether the fair market value should be based on the value of the land as used in a seaport, or in highest and best use, which in some locations may involve converting to residential or commercial use.

This means the federal government should cast a critical eye on the proposed Roberts Bank Terminal 2 project – a major container terminal expansion at the Port of Vancouver. This terminal expansion is estimated to cost $2 billion and be completed without any taxpayer dollars – instead relying on Port of Vancouver and some private-sector funding (Port of Vancouver 2017).

At the end of 2016, the Port of Vancouver had committed $863 million of its own funds towards container expansion projects – likely the Terminal 2 expansion project (Port of Vancouver 2017). While it is true that these are not direct tax dollars, this money could instead be returned to the federal government and devoted to other priorities. So taxpayers are investing in the project.

The need for this terminal is disputed – the Port Authority believes projected demand justifies it, and operators of competing terminals unsurprisingly disagree (Renshaw 2017). The ability of the Port Authority to attract private capital for the full cost of the terminal is a litmus test for whether the expected demand justifies the investment – regardless of whether it is ultimately funded with public or private dollars. If private capital is unwilling to finance the project – when they have financed other terminals throughout Canada and the world – it suggests that future demand is too uncertain for the project to earn reasonable risk-adjusted returns. The federal government should closely scrutinize this use of public money through the Port Authority, and determine whether it could be better deployed outside the port to other government priorities.

The federal government retains responsibility for permitting new construction on port-owned lands – which in other settings is typically a municipal responsibility. The CPAs exercise this permitting responsibility on smaller projects, with the largest projects escalated to Ottawa for final approval. Retaining this permitting responsibility in federal control is essential. Ports have wide-reaching benefits for all Canadians that stretch beyond municipal and provincial boundaries. Only the federal government is appropriately positioned to balance the local concerns about port expansion against wider economic development benefits across the country.

The CPAs also act on behalf of the federal government as the landlords for various terminal operators – seeking to maximize the rents received by growing the port's business, and by capturing value in lease negotiations with tenants. In any operating model – publicly or privately owned – the organization will need to manage many terminal leases, negotiate new terms as they come up for renewal, and allocate space between expansion priorities. This is a complex process that requires specialized expertise. It could be managed by the CPAs, performed by Transport Canada, or transferred to the private sector like in Australia and the UK through a long-term ground lease or outright sale. The operating performance of ports improved after the CPAs were created (Emerson 2015b), suggesting that the decentralized port authorities outperform centralized management by Transport Canada. While selling or leasing to a new landlord has been pursued elsewhere, the value of the leases is heavily tied to the federal government's permitting responsibility for new growth – which should not and cannot be easily transferred. This is a strong reason for maintaining the CPAs – albeit with less public capital invested.

The final responsibility for the CPAs involves the safe maintenance of the harbour. This involves coordinating ships arriving at the different terminals, maintaining anchorages where ships wait for space to unload, dredging channels for ship transit, responding to emergencies, etc. This is a shared activity, coordinated across multiple competing terminals and is therefore the proper role of the port authority.

There is limited need for the CPAs to serve as an economic regulator. Terminals face competitive pressure within their port and with competing ports – shippers are quick to move volumes. With the competitive pressure, the government can have reduced concerns of a private investor abusing market power.

The CPAs – or another similar local organization – are required to maintain common port facilities, coordinate competing terminal leases and permit new construction. However, the federal government can involve private capital in the ownership and operation of these ports while still achieving their policy objectives.

What Canadians Own

The four largest Canada Port Authorities currently generate $244 million annually in Earnings Before Interest, Taxes, Depreciation (EBITDA) and make a contribution to the federal government (roughly $15 million). Together, these amounts are roughly equivalent to the cash flow of the four ports. This cash flow represents the value of the land that the ports manage on behalf of the federal government. Currently, all of the earnings from these ports – the returns from our collective public ownership of these lands – are reinvested in the ports. If the federal government so chose, a significant portion could be repurposed to other investment priorities. 2015 capital expenditures at the ports were $166 million, which were funded out of these earnings. After expenditures, at least $78 million in CPA profits remained on behalf of the federal government.

One option to monetize Ottawa's stake would be to sell an equity interest in the CPA, the approach taken in Britain, or to lease the land on a long-term lease.[3] This would result in a large upfront payment to the federal government and transfer the future cash flows (and maintenance responsibility) to the private sector. Publicly traded ports and recent port sales provide a guide to how institutional investors would likely value this real estate (See Box 1 for methodology). This analysis values the ports at their current revenue and earnings levels – it does not contemplate raising fees to provide a return on investment. Rather, investors would receive their returns from the port's existing cash flows. Based on this methodology and analysis, these four ports would likely be worth between $2.6 and $3.4 billion, which could be recycled to other infrastructure projects, net of the retirement of existing CPA debt (See Table 1). This analysis values the total equity. Therefore, if the government maintained a financial interest through retaining equity or any other income stream, the upfront payment would be reduced.

This value could be as high as $5.2 billion, depending on how risk is currently shared between terminals and the CPAs. The terminal operator tends to bear more of the risk of changes in volume, while the landlord receives a typically fixed payment. This means the terminal operator demands a higher rate of return – and thus is worth a lower multiple of cash flows. The lease contracts for individual terminals are not public and would determine how risky the cash flows of the current CPAs are. If they are mostly fixed, investors may be willing to pay as high as 20-22x EBITDA for the port landlord role as in Australia and the UK (Maersk Group 2015). At 22x EBITDA, this would add $1.8 billion to the purchase price bringing the total value to $5.2 billion.

How to Monetize Successfully

There is an important role at each port for an organization like the Canada Port Authorities – managing the leases of different terminal operators, providing common safety and navigation services, and permitting new construction. However, at the most in-demand ports, federally owned land is highly valuable – both as a port and for other uses. That land, and its returns, is a valuable public asset, whose proceeds should be used for the highest and best benefit for all Canadians – determined by the government of the day. We should not offer that land to the shipping industry at below market rates – and thus there are profits from the asset to be allocated.

3 Terms of 40-60 years are common in the industry.

Box 2: Financial Valuation Methodology

I used a standard five-step methodology to establish indicative values for these airports:

1. Calculated Earnings Before Interest, Taxes, Depreciation (EBITDA), a common metric used as a proxy for free cash flow in port valuation, based on 2015 financials for each port
2. Adjusted EBITDA to eliminate gross revenue charges payable to the federal government at each port, on the assumption that the federal government would eliminate these charges if they involve private capital.
3. Calculated the ratio of total enterprise value (TEV) – debt and equity – to EBITDA for comparable publicly traded ports. The only publicly-traded focused port operator is DP World – which has terminals in Vancouver, Prince Rupert and St. John – traded at 11.7x EBITDA at the time of this report. Drewry, a maritime research consultancy, indicates that recent terminal acquisitions have occurred at an average of 14x EBITDA.
4. Established a valuation range of 11.7x to 14x TEV/EBITDA, based on these data points.
5. Applied multiples to the adjusted EBITDA of each of the ports to estimate total enterprise value and then subtracted net debt (value of debt less unrestricted cash and cash restricted by debt covenants).

This analysis presumes that opportunities to grow the ports cash flows are in line with similar ports around the world. If a new operator could make changes resulting in higher cash flows, this would be reflected in a higher purchase price – since the government would capture some portion through a competitive bidding process.

The estimated revenue and EBITDA growth rates of these ports, as well as the investor's perceived risk will significantly influence the EBITDA multiple an investor is willing to pay. Both these variables have significant uncertainty. Critical government decisions regarding transaction structure (e.g., regulatory framework, statutory requirements) will affect the sale value. Ports in similar economies are likely to have similar growth rates and risks. A detailed market sounding with institutional investors – like that currently being conducted by Morgan Stanley for the Canada Development Investment Corporation, which manages investments on behalf of the federal governments and sells them to the broader public when appropriate – would be required to better estimate likely equity value. I rounded equity values to account for the uncertainties involved in the final estimates.

It is not clear that the best use of the proceeds will always be reinvestment in the port that earned the returns. In the status quo, however, most of the profits from these rents are reinvested at the port that manages the land on behalf of the federal government. In 2014, the federal government collected $19.4 million in gross revenue charges from the CPAs (Emerson 2015b) – roughly one-quarter of port profits, and less than 5 percent of overall port authority revenues. The remainder is reinvested at the port authority where the revenues were earned.

Table 1: Equity Value of Canada's Four Largest Ports			
Port	2015 Adjusted EBITDA (*$ million*)	Net Debt at Market Value (*$ million*)	Estimated Equity Value
Vancouver	152	(40)	$1.6 – 2.2 billion
Montreal	46	(30)	$500 – $700 million
Prince Rupert	30	43	$300 – $400 million
Halifax	16	29	$150 – $200 million
Total	**244**	**1**	**$2.6 – $3.4 billion**

Source: Author analysis of S&P Capital IQ Data and Port 2015 Financial Statements for adjusted EBITDA, transaction multiples from S&P Capital IQ and Drewry 2016. Negative numbers in net debt indicates that Port Authority cash balance exceeds outstanding debt obligations.

However, the revenues of the port authorities are the returns on federal land ownership at these ports – these rents are a federal asset. Investment of these proceeds should be deployed where they have the highest societal returns. This will not always be reinvestment at the port that earned the return. The government should compare reinvestment at a port to other investment opportunities in the transportation system or elsewhere.

For this reason, the federal government should begin to monetize the largest CPAs by directing them to begin paying dividends equivalent to the businesses free cash flows not required for needed maintenance expenses and approved capital expenditure plans. They would become more like the dividend-paying Crown corporations that are common in the electricity sector. The federal government could then choose to allocate these funds according to its priorities – which may include investment in the port sector, but also other government priorities. A strong commitment to evidence-based decision-making would be required to ensure these proceeds are reinvested wisely.

If the government plans to use the proceeds to make substantial investments in other infrastructure projects, it may benefit from more cash flows upfront. There are three ways it can pursue this. First, it could direct the CPAs in future lease negotiations to seek greater upfront payments on leases with terminal operators. This would further reduce the public capital invested in the ports and create cash flows that could be returned to the government. Second, it could lease a whole or partial stake in the land to a private investor in exchange for an upfront payment. The investor would then manage leasing with the terminal operators, along the Australian model. Finally, it could sell equity stakes in the CPAs themselves to private investors, however, this would require moving the permitting responsibility out of the CPA to Transport Canada or another part of government.

Conclusions

Canada's major ports already operate with significant private investment from terminal operators who invest risk capital in anticipation of future volume growth, contract with shipping lines, and manage the loading and unloading of ships. These terminal operators – and the ports – face high competition, both within the port, and with other ports along the same coast, competing to secure volumes from the major shipping alliances. The federal government owns these port lands and needs to lease them out in a commercial manner to maximize their value – this is part of the role of the CPAs today.

At the same time, the current model means that the profits from managing this land are solely reinvested back into the ports which generated them. Sometimes, these will be the highest priority investments for Canadians – and at other times they won't. The federal government should seek to capture greater returns from its land ownership at these ports – first by receiving dividends from the port authorities, and if there is a need for an upfront cash flow, from seeking greater involvement from private capital. These changes would make little noticeable difference for shippers – competitive constraints restrict the market power of the ports – but would unlock $2.6 to $3.4 billion in equity value which could be invested in the most pressing infrastructure needs of Canadians.

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