

Halifax Port Authority

1215 Marginal Road
Halifax, Nova Scotia, Canada
B3H 4P8

Port of Halifax Economic Impact Report

Prepared by
Chris Lowe Planning & Management Group

February 2009



Table of Contents

Executive Summary	3
1 Introduction	6
1.1 Report Objectives.....	6
1.2 Context	7
1.3 Halifax Port Authority Overview.....	8
1.4 Regional Economy	11
2 Study Approach	13
2.1 Introduction	13
2.2 Economic Impacts.....	14
2.3 Study Area	16
2.4 Economic Impacts and Methods of Measurement	16
2.5 Fiscal Impact.....	17
2.6 Other Impacts	17
3 Economic and Related Impacts	18
3.1 Introduction	18
3.2 Economic Output.....	19
3.3 Gross Domestic Product (GDP)	19
3.4 Employment (Full-Time Equivalent)	20
3.5 Wages and Salaries	20
3.6 Rail Impacts.....	21
3.7 Trucking (Long Haul and Local) Impacts	22
3.8 Renovation and New Construction Impacts.....	24
3.9 Cruise Ship Visit Impacts	25
3.10 Urban Integration and Other Positive Benefits.....	26
4 Fiscal Impacts	27
4.1 Introduction	27
4.2 Personal and Consumption Taxes (Provincial)	27
4.3 Retail Sales Tax (HST)	28
4.4 Payment In Lieu of Taxes.....	28
5 Conclusions	30
Endnotes	31

List of Exhibits

- Exhibit 1.1 Port of Halifax Cargo Statistics: 2005 to 2007
- Exhibit 1.2 Port of Halifax Setting
- Exhibit 1.3 Canada & Atlantic Canada Population - 1996 to 2007
- Exhibit 1.4 Halifax Regional Municipality & Nova Scotia: Key Indicators – 1996 and 2007

- Exhibit 2.1 Economic Impact Activities & Port Facilities Used

- Exhibit 3.1 Halifax Port Authority: Major Tenants 2008
- Exhibit 3.2 Port of Halifax - Gross Output 2007
- Exhibit 3.3 Port of Halifax - GDP Impacts 2007
- Exhibit 3.4 Port of Halifax - Full-Time Equivalent (FTE) Jobs 2007
- Exhibit 3.5 Port of Halifax - Wages & Salaries 2007
- Exhibit 3.6 Rail Transit Times: CN Serviced Ports to Memphis
- Exhibit 3.7 Port-Related Rail Impacts 2007
- Exhibit 3.8 Port of Halifax: Estimated Local Market Container Origin/ Destination Traffic
- Exhibit 3.9 Port-Related Trucking Impacts 2007
- Exhibit 3.10 Port of Halifax Cruise Ship Impacts: 2002 to 2008 (\$Million)

- Exhibit 4.1 Port of Halifax Economic Impacts: Personal Income & Consumption Taxes 2007 (\$Millions)
- Exhibit 4.2 Port of Halifax Economic Impacts: Retail Sales (HST) Taxes 2007 (\$Millions)
- Exhibit 4.3 Halifax Port Authority - Payment In Lieu of Taxes

Executive Summary



In 2008, the Chris Lowe Group was retained by the Halifax Port Authority to determine the economic impacts of the Port of Halifax on the Halifax Region and Nova Scotia. The study estimated the port's impacts on:

- Economic Output
- Gross Domestic Product (GDP)
- Employment (Full-time Equivalent)
- Wages and Salaries
- The Rail Transportation Sector
- The Trucking Sector (Long Haul and Local)
- Renovation and New Construction Capital Projects
- Urban Integration and Other Positive Impacts.

The study also calculated the port's impacts on such fiscal measures as personal and consumption taxes, retail sales tax (HST) and taxes paid to the Halifax Regional Municipality (HRM).

The research findings reveal that the Port of Halifax is a major contributor to the economy of the Halifax Region and Nova Scotia. The 2007 direct and spinoff (indirect and induced) impacts of port-related activities include \$1.58 billion in gross output, \$671 million in Gross Domestic Product (GDP) and 11,190 full-time equivalent (FTE) jobs. Wages and salaries resulting from port activity were \$504.7 million in 2007. The average wage for direct and spinoff jobs was \$45,100, 29% above the provincial average.

Port of Halifax Impacts 2007					
Indicator	Output (\$ Million)	GDP (\$ Million)	FTE Jobs	Wages (\$Million)	Worker Average (Rounded)
Direct	\$630	\$255	4,685	\$232.4	\$49,600
Indirect	\$444	\$194	2,855	\$105.7	\$37,050
Induced	\$505	\$222	3,650	\$166.6	\$45,620
Total	\$1,579	\$671	11,190	\$504.7	\$45,100

Two other sectors are directly tied to the Port of Halifax: rail and trucking. The Port of Halifax is served by CN which is the largest Canadian Class I railway, in terms of both revenue and the physical size of its rail network. In 2007, CN and related rail service providers contributed \$170 million to economic output, \$74 million to GDP, as well as 920 full-time equivalent (FTE) jobs and \$50 million in wages. The majority of these benefits occur within the Halifax Region.



Port-Related Rail Impacts 2007				
Indicator	FTE Jobs	Wages (\$Million)	GDP (\$Million)	Output (\$Million)
Direct	385	\$23.0	\$28	\$68
Indirect	235	\$10.5	\$21	\$48
Induced	300	\$16.5	\$24	\$55
Total	920	\$50.0	\$74	\$170

During 2007, over 1,400 FTE long haul and local trucking jobs were associated with the Port of Halifax. These jobs provided \$46.5 million in wages and contributed \$68 million in GDP and \$160 million in output to the Halifax Region and Nova Scotia.

Port-Related Trucking Impacts 2007				
Indicator	FTE Jobs	Wages (\$Million)	GDP (\$Million)	Output (\$Million)
Direct	590	\$21.4	\$26	\$64
Indirect	360	\$9.7	\$20	\$45
Induced	460	\$15.3	\$23	\$51
Total	1,410	\$46.5	\$68	\$160



A growing sector of activity for the Port of Halifax is cruise tourism. The direct impact of this sector in 2008 on the Halifax Region exceeded \$50 million from passenger, crew and cruise line expenditures. Over the period from 2002 to 2008, the Port of Halifax had 725 cruise ship visits. The direct contribution of the cruise sector was over \$318 million for this period.

Port of Halifax Cruise Ship Impacts: 2002 to 2008 (\$Million)					
Year	Ships	Passenger Expenditures	Crew Expenditures	Cruise Line Expenditures	Total
2002	87	\$16.9	\$4.3	\$19.0	\$40.2
2003	104	\$16.9	\$4.3	\$23.5	\$44.7
2004	122	\$19.9	\$5.1	\$28.0	\$53.0
2005	106	\$16.8	\$4.3	\$25.0	\$46.1
2006	89	\$14.3	\$3.6	\$21.4	\$39.3
2007	92	\$14.3	\$3.7	\$22.5	\$40.5
2008	125	\$18.9	\$4.8	\$31.4	\$55.1
Total	725	\$118.0	\$30.1	\$170.8	\$318.9

The Port of Halifax also generates positive fiscal impacts to the Province of Nova Scotia and the Halifax Regional Municipality. During 2007, port-related employment provided the Province of Nova Scotia with over \$76 million in personal income and consumption taxes. Annual payments in lieu of taxes to the Halifax Regional Municipality by the Halifax Port Authority exceed \$1 million.

Besides ongoing economic and fiscal impacts, there are one-time impacts related to renovation and construction projects. Between 2008 to 2013, \$45 million is expected to be spent by the Halifax Port Authority on capital projects. These expected expenditures will result in 735 FTE jobs (person years of employment) and \$28.5 million in wages and salaries.

1 Introduction

1.1 Report Objectives



In 2008, the Chris Lowe Group was retained by the Halifax Port Authority to determine the economic impacts of the Port of Halifax on the Halifax Region and Nova Scotia. Original research, previous reports and secondary data sources were used to calculate the economic output, contribution to gross domestic product, wages, jobs (full-time equivalent) and fiscal impacts from port activity in 2007¹. The analysis excluded fishery and military operations. The Port of Halifax's economic impacts extend beyond traditional indicators and measures. To understand the broader role of the port in the local and provincial economy, the economic impacts of Port Authority renovation and new construction projects were calculated. Cruise ship impacts were also determined, as well as taxation benefits to the Halifax Regional Municipality (HRM) and other positive spinoffs from the close proximity of the port to Downtown Halifax and other built-up urban areas.

The Port of Halifax Economic Impact Report is presented in five sections. Section 1, Introduction, provides the context for the Port of Halifax and presents an overview of the Halifax Port Authority and the regional economy. Section 2, Study Approach, explains how the economic impacts are measured and calculated. Section 3, Economic and Related Impacts, contains the calculations of the port's impacts on:

The economic benefits of the Port of Halifax on the Halifax Region and Nova Scotia are defined as direct impacts, indirect impacts and induced impacts.

- Economic Output
- Gross Domestic Product (GDP)
- Employment (Full-time Equivalent)
- Wages and Salaries
- The Rail Transportation Sector
- The Trucking Sector (Long Haul and Local)
- Renovation and New Construction Capital Projects (Jobs and Household Income)
- Urban Integration and Other Positive Impacts.

Section 4, Fiscal Impacts, presents the calculations of port impacts on personal and consumption taxes, retail sales tax (HST) and taxes paid to the Halifax Regional Municipality. Section 5, Conclusions, contains a summary of the findings.

1.2 Context



The Port of Halifax is located on the Atlantic Coast of Nova Scotia and has one of the deepest and largest harbours in the world. It is Canada's third largest container port, after Vancouver and Montreal, and is strategically located approximately 100 kilometres from major shipping lanes (Great Circle Route) to North America. This location means that Halifax is the first inbound/last outbound port for marine transport from Europe, the Mediterranean and Asia via the Suez Canal.

Halifax is a key part of Canada's East Coast port system. The other major ports in this system are Montreal, Quebec City and Saint John. Winter ice in the St. Lawrence River creates the setting where Halifax is the most important year-round port on the East Coast of Canada. Ships heading for the U.S. Eastern Seaboard also have the advantage of docking first in Halifax to lighten their loads thus avoiding channel draft problems at other ports. Ships also dock in Halifax to top up loads on outbound routes.

As Asian manufacturing increases in Vietnam, India, Sri Lanka and Pakistan, marine transport to East Coast ports via the Suez Canal (as opposed to across the Pacific and through the Panama Canal) will increase as all-water transit time to the East Coast and the U.S. Midwest is reduced.

Over the past two decades, the Port of Halifax has benefitted from liberalized global trade which requires efficient transportation services. The port has also benefitted from the trend to reduce labour and production input costs by manufacturing in low cost locations throughout the world. With manufacturing increasingly located outside of North America, global supply chains are the norm in many sectors as production systems require frequent shipments with precise scheduling. The result is new port, rail and trucking strategies throughout North America to improve throughput. These strategies include reducing terminal handling activities by building "solid trains" to fewer more dense markets along key rail corridors. This strategy is used by CN Rail from the Port of Halifax to points west and south.

Exhibit 1.1 provides a summary of cargo statistics for Halifax over the period from 2005 to 2007. The regular carriers calling at Halifax are:

ACL	Atlantic Ro-Ro Carriers
Canada Steamship Lines	China Shipping
Costa Container Line	Eimskip
Europe West Indies Lines	Hapag Lloyd
Jumbo Shipping	Melfi Marine
National Shipping Co. of Saudi Arabia	Nirint Shipping
NYK Line	Oceanex
OOCL	Samskip
St. Pierre Seatransit	Wallenius Wilhelmsen
Zim Integrated Shipping.	

Exhibit 1.1			
Port of Halifax Cargo Statistics: 2005 to 2007			
Cargo Type	2007	2006	2005
Bulk	7,613,194	8,755,331	8,540,368
Containerized	4,229,253	4,755,331	8,540,368
Ro/Ro Cargo	244,630	216,032	203,063
Breakbulk Cargo	152,824	136,404	196,699
<i>Total</i>	12,239,902	13,679,787	13,585,218
TEUs - Import	236,468	260,546	271,937
TEUs - Export	253,603	269,344	278,277
<i>TEUs - Total</i>	490,071	529,890	550,214
Source: Halifax Port Authority, 2008.			

1.3 Halifax Port Authority Overview



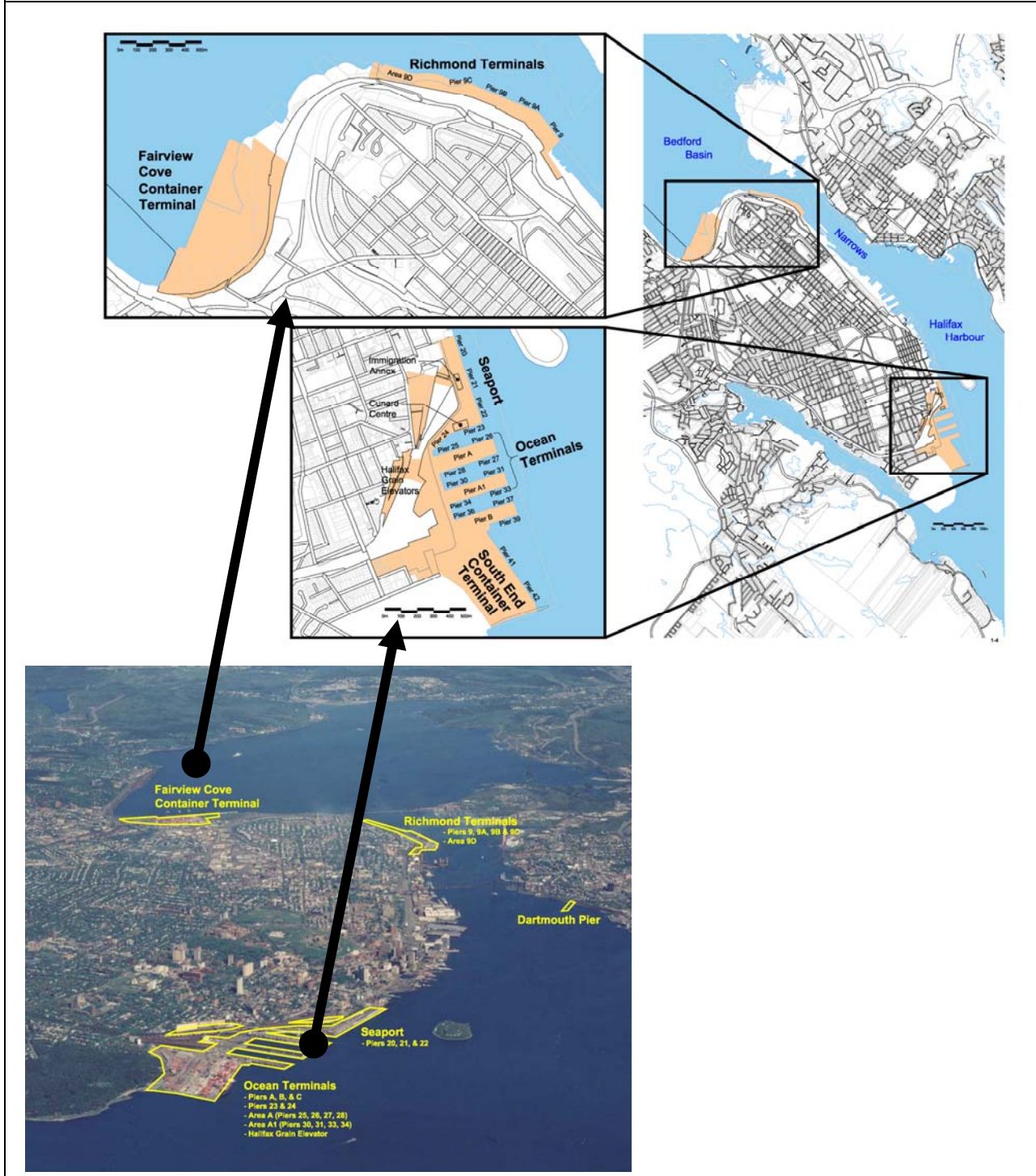
The Halifax Port Authority is a not-for-profit Crown Corporation with a Board of Directors that was created under Letters Patent issued by the Minister of Transport on March 1, 1999. It replaces the former Halifax Port Corporation. As detailed in the Letters Patent, the Halifax Port Authority has jurisdiction over "the waters lying northwest of a line running north 56 degrees east and distant 3,500 feet southeasterly from Point Pleasant". The powers of the Port Authority within the harbour limits are:

The Halifax Port Authority's mandate is to promote and develop the Port of Halifax and manage the infrastructure under its control in a commercial manner, providing for the safety of the users and adhering to sound environmental protection practices.

1. 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 its Letters Patent.
2. Other activities that are deemed in the Letters Patent to be necessary to support port operations.

For marine-related functions, the Halifax Port Authority is an agent of Her Majesty the Queen.

Exhibit 1.2 Port of Halifax Setting





As highlighted in Exhibit 1.2, lands managed by the Halifax Port Authority are located in four areas: Halifax South, Richmond, Fairview and Dartmouth. Within these areas, port facilities under the jurisdiction of the Port Authority include the following:

- South End Container Terminal - Piers 36-42 (operated by Halterm Limited).
- Ocean Terminals - Piers 23-34.
- Seawall - Piers 20-22, Cruise Ship Pavilion and Pier 21 Museum.
- Richmond Terminals - Piers 9 and 9A. (CN Rail established an intermodal terminal immediately inland of the piers in the 1990's).
- Richmond Offshore Terminals - Piers 9B-9D (multi-user supply base for offshore oil and gas exploration/production).
- Fairview Cove Container Terminal (operated by Cerescorp).
- Autoport (operated by CN Rail).
- Imperial Oil Wharves (operated by Imperial Oil to serve its Dartmouth Refinery).
- Woodside Atlantic Wharf - (vessel lay up and repair, servicing offshore oil and gas rigs).
- National Gypsum Wharf - (operated by National Gypsum at Wrights Cove).

The Halifax Port Authority also operates the Halifax Grain Elevator which is a non-port facility in Peninsular Halifax. Port facilities are serviced by CN Rail and numerous local and long haul trucking firms.



1.4 Regional Economy



The Port of Halifax is located within the Halifax Regional Municipality (HRM). A key factor influencing port-related functions, and hence economic impacts, is the state of the regional and national economies. Atlantic Canada has a stable population with declining unemployment and real economic growth driven by resource development and the service sector. From 1996 to 2007, the region's population declined by 2.2% from 2,381,002 to 2,329,128. Nova Scotia's population increased by 0.6% from 931,235 to 936,698. The population of Prince Edward Island also increased. Nationally, the economy has also grown by over 4 million.

The Halifax Regional Municipality is the major urban centre in Atlantic Canada and the largest contributor to the Nova Scotia economy. Between 1996 and 2007, the number of employed persons in HRM increased by 27% (46,200) from 172,100 to 218,300 while unemployment declined from 8.6% to 5.3%. Province-wide, total employment increased by 16% (62,600) from 385,000 to 447,600 while unemployment declined from 12.6% to 8.0%.

Exhibit 1.3
Canada & Atlantic Canada Population - 1996 to 2007

Province	1996	2007	Change
Newfoundland & Labrador	560,584	507,436	- 53,148
PEI	136,188	138,615	+ 2,427
Nova Scotia	931,235	936,698	+ 5,463
New Brunswick	752,995	746,379	- 6,616
Atlantic Canada Total	2,381,002	2,329,128	- 51,874
Canada Total	28,846,761	33,046,696	+4,199,935

Source: Statistics Canada, Population Estimates & Projections, Catalogue No. 91-002-X. The 2007 population data are based upon the October – December period.

Exhibit 1.4 Halifax Regional Municipality & Nova Scotia: Key Indicators – 1996 and 2007				
	Halifax Regional Municipality		Nova Scotia	
	1996	2007	1996	2007
Total Population	341,500	385,500	931,200	934,147
Total Employed	172,100	218,300	385,000	447,600
Unemployment Rate	8.6%	5.3%	12.6%	8.0%
Labour Force Participation Rate	67.5%	69.8%	59.8%	63.7.9%
Sources – Nova Scotia Department of Finance – Economics and Statistics, Labour Force Data; Halifax Regional Municipality 2008/09 Budget Documents; Greater Halifax Partnership Economic Snapshot.				

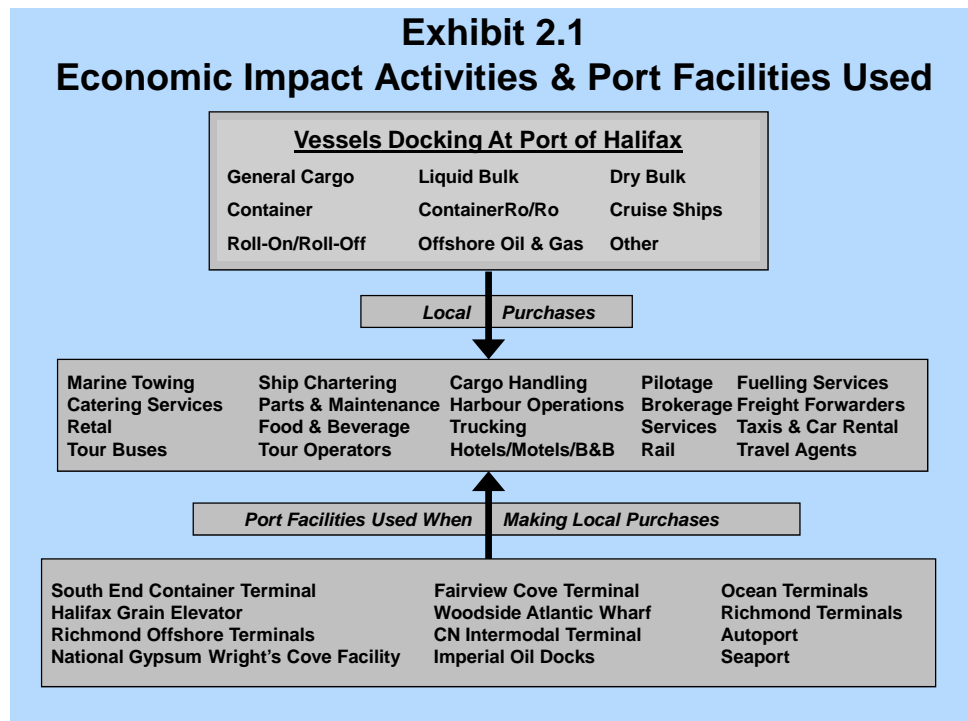
2 Study Approach

2.1 Introduction

The economic impacts approach focuses on Halifax Region and Nova Scotia-based purchases of goods and services by vessels docking at the Port of Halifax.

This section highlights the approach used to determine the port’s impacts. The ongoing impacts are defined as activities related to ships docking at the Port of Halifax (excluding the fishery and military-related operations), as well as one-time capital investments by the Halifax Port Authority that enable these activities (transportation, logistics activities and so on). Rail and trucking activities associated with the port are assessed separately.

The types of local purchases and port facilities used by vessels docking at the Port of Halifax define the economic impacts.



2.2 Economic Impacts

Economic activity at the Port of Halifax is calculated by direct, indirect and induced impacts.

To establish a framework for measuring the economic impacts of the port, the following were defined:

- The types of economic activity being considered.
- The geographic area of the impacts (study area).
- The measures of economic impacts.
- The methods used to estimate economic impacts.
- Other measures such as urban integration and redevelopment projects.

Economic activity related to the Port of Halifax is defined by three categories: direct, indirect and induced.

Direct Economic Activity – Primary Linkages

This measure refers to activities of firms and government service providers for whom port activity comprises a portion of total business activity. These businesses can be further divided into two groups:

- Primary linkage to the port (generally marine transportation related), and
- Secondary linkage (generally not marine transportation related).

Primary linkage businesses or organizations include those listed below. These businesses are located on the Port Authority's holdings or other waterfront sites in the Halifax Regional Municipality.

Marine Carriers: This group refers to companies offering scheduled or chartered marine service for containers, dry and liquid bulk cargo, breakbulk cargo, roll on/roll off (ro/ro) and offshore oil and gas activities. Cruise ships are also included in this group.

Marine Support Services: This group refers to companies whose business is primarily or wholly marine transport-related, or who provide direct support to marine carriers. Marine support services include:

- Marine Towing
- Ship Chartering
- Marine Cargo Handling
- Harbour and Port Operations
- Pilotage
- Fuelling Services
- Marine Catering Services
- Parts and Maintenance Services

- Custom Brokers, Freight Forwarders and NVOCCs (Non-Vessel Owning Common Carriers).

Direct Economic Activity – Secondary Linkages

Secondary linkage businesses include commercial services, CN Rail, ground transportation and the hotel and hospitality sectors.

Commercial Services: These include marine related retail and personal services businesses operating around Halifax Harbour that are used by cruise ship passengers and crews.

Rail and Ground Transportation: These include CN Rail, long haul truckers, car rental, taxi service and bus transportation operations that service the port.

Tourist/Travel/Hotel Industry: This group of secondary linkage businesses includes travel agencies, tour operators and hotels/motels or other food and beverage operators who provide services to passengers (and crew) travelling by cruise ship. (This group excludes catering businesses that are included under Marine Support Services).

Indirect Economic Activity

Direct economic activity is accompanied by indirect and induced economic activity. Applying Statistics Canada and Nova Scotia Department of Finance indicators, the spin-off impacts of direct port activity can be estimated.

Indirect economic activity refers to activity generated in a sector that supplies raw materials and other inputs to businesses associated with direct economic activity (as listed above). Indirect activity occurs as a result of direct activity. The terms "direct" and "indirect" depend on the chosen reference point.

Induced Economic Activity

Induced impacts refers to economic activity generated by individuals employed in the direct or indirect activity sectors who spend a portion of their household income on consumer goods.

Measures of indirect and induced activity show the effect that the direct expenditures have as they ripple through the economy. The measure is referred to as the multiplier effect.

2.3 Study Area

The Port of Halifax's total economic activity, and corresponding impacts, are calculated for a defined geographic region. For this report, economic activity and impacts are analysed for the local economy (Halifax Regional Municipality) and the Province of Nova Scotia.

2.4 Economic Impacts and Methods of Measurement

Four measures of the port's economic impacts (direct, indirect and induced) on the Halifax Region and Nova Scotia are defined. They are:

Economic Output or Gross Revenue

This measure is determined in terms of total gross revenue from all port-related activity, and those same total gross revenues, less any revenues transferred from one port-related activity (primary or secondary) to another.

Gross Domestic Product (GDP)

This measure refers to value added revenues associated with the Port of Halifax that occur in Nova Scotia. Economic output is always a larger value than GDP.

Employment

This measure is defined as the total amount of full-time equivalent (FTE) employment created by port activity.

Wages and Salaries

This measure is defined as the total amount of wages and salaries created due to port activity.

In addition to these four measures, other measures of the port's economic impacts were also calculated and assessed separately. They include the impacts of construction activity and cruise ships visits over several years.



2.5 Fiscal Impact

Fiscal impacts are also measured as direct, indirect and induced activity.

The types of fiscal impact measures include personal income taxes and retail sales taxes.

Personal Income Taxes

This measure refers to the personal income taxes created for the Province of Nova Scotia by the wages and salaries paid to individuals employed due to port activity. This impact was calculated using data from Statistics Canada's Financial Management System².

Retail Sales Taxes

This measure refers to retail sales taxes generated by the purchase of retail goods and services by individuals who earn wages and salaries from their employment activity. The HST rate in 2007 was 13%.

The income and retail sales taxes fiscal impacts are measured for the same study area and in a similar fashion as economic impacts in terms of direct, indirect and induced activity.

Municipal Taxes (Payment In Lieu of Taxes)

The operations of the Halifax Port Authority occur on Federal Real Property which is not subject to municipal taxation by provincial statutes. Rather the Port Authority makes an annual payment in lieu of taxes (PILT) which is similar to the municipal tax levy. Tenants also pay commercial and business occupancy taxes to the Halifax Regional Municipality. These values are excluded from the assessments of fiscal impacts.

2.6 Other Impacts

The proximity of port-related activities to Downtown Halifax and other urban areas of HRM creates proximity benefits. These positive surrounding community impacts are reviewed.



3 Economic and Related Impacts

3.1 Introduction

The methodology outlined in Section 2 was applied to prepare estimates of the port's total economic impacts in terms of:

- Economic Output
- GDP
- Employment
- Wages and Salaries.

For each type of economic impact indicator listed above, dollar or employment values were used to estimate the economic impacts attributed to the Halifax Region and Nova Scotia. While most indicators are for 2007, the impacts also include cruise ship activity from 2002 to 2008.

Exhibit 3.1
Halifax Port Authority: Major Tenants 2008

Cerescorp Company Dexter Construction Company Halterm Limited it International Telecom Inc. Beaver Marine Satlantic Inc. M-I Drilling Fluids Canada CN Rail Art Gallery of Nova Scotia Halifax Shipyard SNC-Lavalin Defence Programs Inc. Marener Industries Furncan Marine Missions to Seafarers Northern Transportation Company	Canadian Grain Commission Logistec Stevedoring (Atlantic) Inc. Halifax Grain Elevator Garrison Brewing Company Pier 21 Society Halifax Freight & Steamship Checkers NS Transportation and Infrastructural Renewal NSCAD University John K. Dobbs & Associates RCR Hospitality Group Peter Bresnen Studio Pier 21 Creative Artisans Association Silvers Agencies Ltd.	Tourism Industry Association of Nova Scotia Cultural Federations of Nova Scotia The Java Factory Roasting Company Gerald Ferguson Inc. Jeffrey Cowling & Associates William F. White International Inc. Sim Video Atlantic Ltd. Breakhouse Inc. RPM Productions Inc. Sonesta Windward Enterprises Dover Mills Ltd.
Source: Halifax Port Authority, December 2008.		

3.2 Economic Output



The first measure of economic impacts is total economic output. This measure is also referred to as gross revenue. Economic impacts related to the port are shown in Exhibit 3.2. The economic impacts are broken down into direct, indirect and induced.

The Port of Halifax's total economic output for the economy of the Halifax Region and Nova Scotia is \$1.58 billion. The breakdown is 40% direct output, 28% indirect output and 32% induced output.

Exhibit 3.2 Port of Halifax – Gross Output 2007	
Indicator	Output (\$Million)
Direct	\$630
Indirect	\$444
Induced	\$505
Total	\$1,579

3.3 Gross Domestic Product (GDP)

Gross Domestic Product (GDP) provides a second measure of economic impacts. In 2007, port-related activities contributed \$671 million to the economy of the Halifax Region and Nova Scotia. The breakdown is 38% direct impacts, 29% indirect impacts and 33% induced impacts.

Exhibit 3.3 Port of Halifax – GDP Impacts 2007	
Indicator	GDP (\$Million)
Direct	\$255
Indirect	\$194
Induced	\$222
Total	\$671

3.4 Employment (Full-Time Equivalent)



Employment provides a third measure of economic impacts. Employment figures are presented as full-time equivalents (FTE) jobs. For example, two employees working for six months in 2007 will result in one FTE job.

Exhibit 3.4 presents the estimated total employment impact of the port on the Halifax Region and the Province of Nova Scotia. In 2007, 11,190 FTE positions were created in HRM and Nova Scotia due to port activity. Given that there were 218,300 employed people in HRM in 2007, and most employees associated with the port reside in this municipal unit, the port accounted for 5.1% of the total. Direct employment due to port activity amounts to 42%, indirect employment represents 25%, and induced employment provides a further 33%.

Exhibit 3.4	
Port of Halifax – Full-Time Equivalent (FTE) Jobs 2007	
Indicator	FTE Jobs
Direct	4,685
Indirect	2,853
Induced	3,652
Total	11,190

3.5 Wages and Salaries

Wages and salaries provide a fourth measure of economic impacts.

Exhibit 3.5 contains the wage and salary impacts of the port on the Halifax Region and Nova Scotia in 2007. The total wages and salaries created by port activity amounts to \$504.7 million. The direct wage and salary impact of this total is 46%, the indirect impact is 21%, and the induced impact is 33%.

Wages and salaries associated with port activity are significantly above Nova Scotia averages. In 2007, the average Nova Scotia weekly earnings were almost \$675 or \$35,100 per annum³. As Exhibit 3.5 reveals, the average wage for all port-related jobs is \$45,100 or 29% above the provincial average.

**Exhibit 3.5
Port of Halifax – Wages & Salaries 2007**

Indicator	Wages & Salaries (\$Million)	Worker Average (Rounded)
Direct	\$232.4	\$49,600
Indirect	\$105.7	\$37,050
Induced	\$166.6	\$45,620
Total	\$504.7	\$45,100

3.6 Rail Impacts



The Port of Halifax is served by CN which is the largest Canadian Class I railway, in terms of both revenue and the physical size of its rail network. Norfolk Southern and CSX are CN's major competitors at U.S. East Coast ports while Canadian Pacific Railway, BNSF, Kansas City Southern Railway and Union Pacific Railroad are the major competition at Gulf of Mexico or West Coast ports.

CN is Canada's only transcontinental railway company with service from Halifax to British Columbia. It also has extensive trackage in the Central United States along the Mississippi River Valley from the Great Lakes to the Gulf of Mexico. With intermodal facilities and links across Canada and into the U.S., CN has four major gateway ports into North America at Halifax, New Orleans, Vancouver and Prince Rupert.

The newest CN gateway is the Fairview Terminal at Prince Rupert which opened in October 2007. The value proposition of Prince Rupert is the port is the closest to Asia of all West Coast ports and users of this Northern British Columbia facility will reduce trans-Pacific sailing times from ports further to the south by up to 58 hours. The addition of Prince Rupert to CN's IMX scheduled point-to-point intermodal service completes a network that is designed to efficiently move containers from ports via Chicago to Memphis, Tennessee. Once containers reach Memphis, shipments can access over 130 metropolitan markets overnight with 60% of the U.S. population.

The CN IMX rail transit times from Halifax and other CN gateway ports to Memphis are listed in Exhibit 3.6. The Port of Halifax has the benefit of shorter travel times to and from major markets than Pacific gateway ports.

Exhibit 3.6
Rail Transit Times: CN Serviced Ports to Memphis

Routing From	Time
Halifax	92 Hours
Prince Rupert	117 Hours
Vancouver	135 Hours
Mobile	22 Hours
New Orleans	22 Hours
Source: CN Rail.	

In 2007, CN and related rail service providers to the Port of Halifax contributed \$170 million to economic output, \$74 million to GDP, as well as 920 full-time equivalent (FTE) jobs and \$50 million in wages. The majority of these benefits occur within the Halifax Region.

Exhibit 3.7
Port-Related Rail Impacts 2007

Indicator	FTE Jobs	Wages (\$Million)	GDP (\$Million)	Output (\$Million)
Direct	385	\$23.0	\$28	\$68
Indirect	235	\$10.5	\$21	\$48
Induced	300	\$16.5	\$24	\$55
Total	920	\$50.0	\$74	\$170

3.7 Trucking (Long Haul and Local) Impacts

Not all cargo that passes through the Port of Halifax moves directly from ship to rail or visa versa. Some cargo is transloaded by shipping lines and freight forwarders and then trucked to local or regional points of origin or destination. In the range of 25,000 intermodal units are handled annually through the Halifax Intermodal Terminal. The number of trucks calling at all of the intermodal terminals in Halifax averages around 345 trucks (690 one-way trips) per normal business day. The estimated distribution of local intermodal traffic is listed in Exhibit 3.8.

Exhibit 3.8 Port of Halifax: Estimated Local Market Container Origin / Destination Traffic					
Burnside Business Park Area	Bayers Lake Business Park Area	Other Halifax Regional Municipality	Truro Area & Beyond	Annapolis Valley of Nova Scotia	South Shore Of Nova Scotia
17%	3%	1%	60%	5%	13%
Source: Halifax Inland Terminal and Trucking Options Study, MariNova Consulting, January 2006.					

The movement of containers, bulk commodities and other goods at the Port of Halifax has a positive impact on the local and provincial economy. During 2007, over 1,400 FTE long haul and local trucking jobs were associated with the Port of Halifax. These jobs provided \$46.5 million in wages, and contributed \$68 million in GDP and \$160 million in output to the Halifax Region and Nova Scotia.

Exhibit 3.9 Port-Related Trucking Impacts 2007				
Indicator	FTE Jobs	Wages (\$Million)	GDP (\$Million)	Output (\$Million)
Direct	590	\$21.4	\$26	\$64
Indirect	360	\$9.7	\$20	\$45
Induced	460	\$15.3	\$23	\$51
Total	1,410	\$46.5	\$68	\$160

3.8 Renovation and New Construction Impacts

Renovation and new construction projects have a positive economic impact on the Halifax Region and Nova Scotia economy.

Over the period from 2008 to 2013, \$45 million is expected to be spent by the Halifax Port Authority on capital projects. Applying the 2007 average Nova Scotia construction wage (\$40,285), the expected future expenditures will result in 735 FTE jobs (person years) and \$28.5 million in wages and salaries.

Beyond the employment and household income impacts of the Port Authority's capital projects, tenants have completed millions of dollars of new construction, renovation and maintenance projects that also benefit the regional and provincial economy.

3.9 Cruise Ship Visit Impacts

In 2007, tourism was a \$1.3 billion industry in Nova Scotia with 2.14 million visitors or a 1% increase from 2006⁴. Halifax is the major cruise port for Atlantic Canada and the number of passengers has been increasing while overall tourist visits to Nova Scotia are stable. The expenditure patterns of cruise ship passengers, crew members, and cruise lines are different than other visitors to Nova Scotia and tourism operators. The key differences are length of stay and type of expenditures.



The economic impacts of cruise ship docking at the Port of Halifax from 2002 to 2007 can be estimated. The direct impact of this sector in 2008 on the Halifax Region exceeded \$50 million from passenger, crew and cruise line expenditures. Over the period from 2002 to 2008, 725 cruise ships visited the Port of Halifax. The direct contribution of the cruise sector was over \$318 million.

The 2007 impacts are also included in the other economic measures presented earlier in this section.

Exhibit 3.10
Port of Halifax Cruise Ship Impacts: 2002 to 2008 (\$Million)

Year	Ships	Passenger Expenditures	Crew Expenditures	Cruise Line Expenditures	Total
2002	87	\$16.9	\$4.3	\$19.0	\$40.2
2003	104	\$16.9	\$4.3	\$23.5	\$44.7
2004	122	\$19.9	\$5.1	\$28.0	\$53.0
2005	106	\$16.8	\$4.3	\$25.0	\$46.1
2006	89	\$14.3	\$3.6	\$21.4	\$39.3
2007	92	\$14.3	\$3.7	\$22.5	\$40.5
2008	125	\$18.9	\$4.8	\$31.4	\$55.1
Total	725	\$118.0	\$30.1	\$170.8	\$318.9

Source: Chris Lowe Group estimates based upon 2003 Port of Halifax Cruise Ship Study, Corporate Research Associates, November 2003; 2004 Port of Halifax Crew Study, Corporate Research Associates, November 2004; Halifax Gateway Council Economic Impact Study, InterVISTAS Consulting Inc., November 2005; and International Cruise Industry in Canada – Canadian Economic Impact Analysis, Business Research & Economic Advisors, March 2008.

3.10 Urban Integration and Other Positive Benefits



Halifax is unique in comparison to other North American port cities where the traditional pattern of development has been to relocate old downtown port facilities to new tidewater greenfield locations (outside the urban core) to then permit the old port to be redeveloped as new community, residential or mixed-use projects. This option is not available to Halifax because of current land use patterns, the location of rail corridors and development costs⁵.

The close proximity of port functions to Downtown Halifax and the high profile setting of many Halifax Port Authority holdings have resulted in the integration of marine uses into the urban core. Working harbour functions have remained a part of the community's fabric and allowed for many positive community benefits because of close proximity to Downtown Halifax's retail, leisure, food service and accommodation infrastructure. The lure and draw of this setting has also benefitted the tourism and cultural sectors and allowed obsolete historic port buildings to be renovated for alternative uses.

The Halifax Port Authority has followed a formal collaborative approach when working with port operation stakeholders. The current program is called Smart Port. It was initiated in 2002 and brings together over 75 port stakeholders to prepare strategies to meet current and expected future competitive needs.

Halifax
seaport

CUNARD
CENTRE

CANADA'S IMMIGRATION MUSEUM
PIER 21

The Halifax Port Authority has also been an active partner with all levels of government and numerous interest groups to facilitate the integration of marine uses and port lands with surrounding areas. The showcase project is Halifax Seaport which is a phased project to transform old warehouse sheds and surrounding lands into a cultural and arts district. This opportunity resulted from cargo shifting to container terminals. The Seaport also includes the Immigration Annex, Film and Media Centre and the Halifax Port Authority Administration Building. Tenants now include Pier 21 - Canada's Immigration Museum, NSCAD University and Cunard Centre. These uses are nearby to the dedicated cruise passenger terminal at Pavilion 22. By 2015, the area's redevelopment master plan is scheduled to be completed as an urban cultural and arts district. The project currently contains retail outlets, artists studios, offices, events spaces, galleries, museums and educational facilities. Key anchor uses are Cunard Centre and Pier 21. Cunard Centre can hold concerts, trade and consumer shows, charity and fundraising events and other media events for up to 4,000 users. Pier 21 honours the unique stories of immigration throughout history and pays tribute to 1.5 million immigrants, war brides, displaced people, evacuee children and Canadian military personnel who passed through the facility between 1928 and 1971.

4 Fiscal Impacts

4.1 Introduction

The approach described in Section 2 was used to estimate the fiscal impacts of port activity on the following measures:

- Personal and Consumption Taxes (Provincial)
- Retail Sales Taxes
- Municipal Taxes (Halifax Regional Municipality).

The findings are summarized on a topic by topic basis to the Province of Nova Scotia.

4.2 Personal and Consumption Taxes (Provincial)

In order to obtain estimates of the personal income and consumption taxes (provincial) created from Port of Halifax activity, the percentage of wages and salaries that ends up being paid to the Province of Nova Scotia must be calculated. According to Statistics Canada's financial management systems data, 12.61% of total Nova Scotia personal income went towards personal income and consumption taxes in 2007. Multiplying this average personal income tax rate by the wages and salaries in Section 3 provides an estimate of the personal income tax impact.

Exhibit 4.1 shows the personal income and consumption tax impacts of Port of Halifax activity on the Halifax Region and Nova Scotia in 2007. The total provincial personal income and consumption taxes amounts to over \$76 million. This comprises \$35.2 million in direct personal income and consumption taxes, \$15.9 million in indirect taxes and \$25 million in induced taxes.

Exhibit 4.1				
Port of Halifax Economic Impacts:				
Personal Income & Consumption Taxes 2007 (\$Millions)				
Area	Direct	Indirect	Induced	Total
Halifax Region and Nova Scotia	\$35.2	\$15.9	\$25.0	\$76.1
Source: Chris Lowe Group estimates based on Statistics Canada's CANSIM 384-0012, Provincial Economic Accounts, 2007.				

4.3 Retail Sales Tax (HST)

Another measure of the fiscal impact of the Port of Halifax is the sales tax impact from the purchase of retail goods by those who are employed due to port activity.



Approximately 35% of personal income is spent on retail trade goods and services. By multiplying the wages and salaries from Section 3 times this value, the dollar value of retail sales created by port activity can be estimated. By multiplying this figure by the HST rate (13%), the retail sales tax impact of port activity can be isolated.

Exhibit 4.2 shows the retail sales tax impact of port activity on the Halifax Region and Nova Scotia. This exhibit reveals that over \$27 million in retail sales taxes were created in 2007 due to port activity.

Exhibit 4.2				
Port of Halifax Economic Impacts:				
Retail Sales (HST) Taxes 2007 (\$Millions)				
Area	Direct	Indirect	Induced	Total
Halifax Region and Nova Scotia	\$12.69	\$5.73	\$9.03	\$27.45

4.4 Payment In Lieu of Taxes

Federal Real Property is not subject to municipal taxation under provincial statutes. Rather, the Halifax Port Authority makes a payment in lieu of taxes (PILT) which is similar to the municipal tax levy. For the period from 2002 to 2007, the Halifax Port Authority made payments of almost \$6.7 million to the Halifax Regional Municipality. HRM has a municipal expenditures and revenue allocation model that assigns municipal service costs to different property classes. For all of the Halifax Region, this model reveals that commercial properties pay 45% above the actual cost of providing municipal services. This model has not been applied to the districts around the Port Authority's holdings where the high density of development on Peninsular Halifax means that the cost of providing services is lower than the regional average. Based upon the HRM - wide model, the Halifax Port Authority has provided HRM with over \$2 million in revenues since 2002 that is available to subsidize the provision of municipal services in other parts of the municipality.

Tenants also pay commercial and business occupancy taxes to HRM.

Exhibit 4.3
Halifax Port Authority – Payment In Lieu of Taxes

Year	Payment In Lieu of Taxes (PILT)	Estimated Portion of PILT Available To Subsidize Other HRM Services
2002	\$1,046,970	\$324,875
2003	\$699,500	\$217,055
2004	\$1,725,773	\$535,510
2005	\$1,173,522	\$364,145
2006	\$1,022,000	\$317,130
2007	\$1,007,000	\$312,470
Total	\$6,674,765	\$2,071,185

Source: Halifax Port Authority Annual Financial Statements and Halifax Regional Municipality description of MERA model.

5 Conclusions



The Port of Halifax is a key foundation of the local and provincial economy. During 2007, the Port of Halifax contributed \$1.58 billion in gross output, \$671 million in Gross Domestic Product (GDP) and 11,190 full-time equivalent (FTE) jobs. The direct and spinoff wages and salaries from port activity were \$504.7 million in 2007 with the average wage being 29% above the provincial average.

The rail, trucking and cruise tourism sectors make major contributions to the local economy as a result of involvement at the Port of Halifax. The Port of Halifax is served by CN Rail. During 2007, this Class I railway and related service providers contributed \$170 million to economic output, \$74 million to GDP, as well as 920 full-time equivalent (FTE) jobs and \$50 million in wages. Also during 2007, the long haul and local trucking sector generated 1,400 FTE jobs and provided \$46.5 million in wages while also contributing \$68 million in GDP and \$160 million in output to the Halifax Region and Nova Scotia.

A growing sector of activity for the Port of Halifax is cruise tourism. The direct impact of this sector in 2008 on the Halifax Region exceeded \$55 million from passenger, crew and cruise line expenditures. Over the period from 2002 to 2008, the Port of Halifax had 725 cruise ship visits. The direct contribution of the cruise sector was over \$318 million for this seven-year period.

The Port of Halifax also generates positive fiscal impacts to the Province of Nova Scotia and the Halifax Regional Municipality. During 2007, port-related employment provided the Province of Nova Scotia with over \$76 million in personal income and consumption taxes. Annual payments in lieu of taxes to the Halifax Regional Municipality exceed \$1 million.

Besides ongoing economic and fiscal impacts, there are one-time impacts related to renovation and construction projects. For the period from 2008 to 2013, \$45 million is expected to be spent by the Halifax Port Authority on capital projects. These new expenditures will result in a further 735 FTE jobs (person years) and \$28.5 million in wages and salaries.

Endnotes

¹ The research approach for the study relied upon a range of primary and secondary data sources. They include; 2003 Port of Halifax Cruise Ship Study, Corporate Research Associates, November 2003; 2004 Port of Halifax Crew Study, Corporate Research Associates, November 2004; Halifax Gateway Council Economic Impact Study, InterVISTAS Consulting Inc., November 2005; and International Cruise Industry in Canada – Canadian Economic Impact Analysis, Business Research & Economic Advisors, March 2008.

² Statistics Canada's Financial Management System was selected because these data are also used by the Nova Scotia Department of Finance.

³ Statistics Canada, CANSIM 281-0027.

⁴ Tourism Statistics, Nova Scotia Department of Tourism, Culture and Heritage, 2008.

⁵ Retaining and protecting port-related land uses around the Halifax Harbour is a key objective of the Halifax Regional Municipal Planning Strategy.