

Economic & Fiscal Impact  
Private Development Construction  
Halifax Regional Municipality & Nova Scotia

Urban Development Institute of Nova Scotia  
December 2011



## About the Atlantic Provinces Economic Council

The Atlantic Provinces Economic Council (APEC) is an independent think-tank dedicated to economic progress in Atlantic Canada. Founded in 1954 as a partnership between the provincial governments and the private sector, its objective is to promote the economic development of the Atlantic region of Canada. It accomplishes this through analysing current and emerging economic trends and policies; by communicating the results of its analysis and consulting with a wide audience; and by advocating the appropriate public and private sector response.

APEC is an independent federally incorporated, non-profit organization primarily financed by membership and sponsorship contributions, funded research and conferences. APEC's research staff is based in Halifax.

Information on membership and publications is available by:

Mail: Atlantic Provinces Economic Council  
5121 Sackville Street  
Suite 500  
Halifax, NS B3J 1K1

Telephone: (902) 422-6516

Fax: (902) 429-6803

E-mail: [info@appec-econ.ca](mailto:info@appec-econ.ca)

Homepage: [www.appec-econ.ca](http://www.appec-econ.ca)

# Table of Contents

## Executive Summary

### 1. Introduction

Contents of this Report

Overview of the Scope of Development Construction Activity

### 2. Overview of the Nova Scotia Construction Sector

### 3. A Focus on Private Development Construction Activity

### 4. Summary of Economic and Fiscal Impacts

Nova Scotia

Halifax Regional Municipality

### 5. Conclusions and Recommendations

Appendix A: Description of Economic Impact Analysis and Fiscal Analysis

Appendix B: Economic and Fiscal Impacts

Appendix C: Methodology for Estimating the Value of New Development Construction in

Nova Scotia & the Halifax Regional Municipality

Appendix D: Methodology for Estimating Taxes and Fees

Appendix E: Glossary of Terms and Abbreviations

## Executive Summary

The Urban Development Institute (UDI) of Nova Scotia engaged the Atlantic Provinces Economic Council (APEC) to provide an economic and fiscal impact study of private development construction (including redevelopment) in the Halifax Regional Municipality (HRM) and Nova Scotia over the period 2006 to 2010. APEC's latest Major Projects Inventory identifies \$2.4 billion in potential private development construction projects for Nova Scotia, an indication of the enormous importance of this industry to the province's current and future growth prospects

Over the period 2006 to 2010, annual private development construction created on average:

- 12,596 direct jobs in Nova Scotia and 6,448 direct jobs in the HRM;
- \$618 million in direct labour income in Nova Scotia and \$316 million in labour income in the HRM;
- \$749 million in direct GDP in Nova Scotia and \$383 million in direct GDP in the HRM; and
- \$350 million in direct government taxes and fees in Nova Scotia and \$196 million in direct taxes and fees in the HRM - for all three levels of government combined;

The average total economic impact multipliers for private development construction over the period 2006 to 2010 were as follows:

- for every one dollar of direct output, \$1.596 in total output;
- for every one dollar in direct GDP, \$1.709 in total GDP;
- for every one dollar in direct household income, \$1.513 in total household income; and
- for every one full-time equivalent (FTE) direct job in employment, 1.572 in total FTE jobs.

The private development construction sector is very important to the provincial economy. The economic impact of this industry exceeds the estimated economic impact of the combat vessel project under the national shipbuilding procurement strategy that was awarded to Irving Shipbuilding in Nova Scotia, as documented in a recent Greater Halifax Partnership study. In terms of direct economic impacts, the private development construction sector is larger than the tourism sector in Nova Scotia. The private development construction sector is also larger than the combined sum of the agriculture, forestry and fishing sector.

In the HRM, municipal taxes and fees from private development construction comprise a large share of the tax base, estimated at \$68 million annually on average over the period 2006 to 2010, providing approximately 10% of HRM's tax revenues. Of the \$68 million, approximately 60% of the taxes and fees are

sourced from the various charges/fees on public infrastructure that developers pay.

Given the relevance of private development construction to the province and municipalities, this study has noted two areas that require further examination.

First, municipalities and private developers require a development approval process that both meets the regulatory requirements of municipal and provincial governments and offers a transparent and efficient review process for project proponents. This requires meeting the standards of regulatory best practices for new and existing regulations while at the same time streamlining the development review process. Given the importance of urban development in the HRM to the provincial economy, it is particularly important that the province's largest municipality takes steps to improve its development review processes.

Secondly, private development construction provides significant revenues for municipalities, allowing municipalities to mitigate property tax increases. However, recent increases in charges and fees for development projects in the HRM have led to claims that this places an unfair burden on private developers and could impede future development. Governments need to recognize that there are increasing risks for development proponents - due to changes in the local and global economy, including cost pressures and slowing demand for building infrastructure related to an aging population, the wind-down of public infrastructure stimulus, the slowdown in non-renewable energy investment and increasing environmental standards – and develop a standard for charges and fees which ensures the financial burden on private developers is efficient, fair and reflects true value.

In sync with these recommendations to improve the development process, the Greater Halifax Partnership's latest strategy includes a review of the HRM's and Nova Scotia's regulatory, tax and development fees and processes to make private land development inside the regional centre more attractive. Based on this report's analysis and another previous study, it is evident that the various taxes, charges, and fees on private residential development construction add as much as 20% to the cost of a new home, which can impact housing affordability.

# 1. Introduction

The Urban Development Institute (UDI) of Nova Scotia promotes the land development industry in Nova Scotia. UDI Nova Scotia has asked the Atlantic Provinces Economic Council (APEC) to provide an economic and fiscal impact study of private sector land development in the Halifax Regional Municipality (HRM) and Nova Scotia over the period 2006 to 2010. APEC's latest Major Projects Inventory identifies \$2.4 billion in potential private development construction projects for Nova Scotia, an indication of the enormous importance of this industry to the province's current and future growth prospects.

The goal of this study is to improve public knowledge of the size, scope, value and importance of this industry to the HRM and the province and to evaluate the economic and fiscal benefits of the private development construction industry.

For the purposes of this study, private development construction includes:

- new residential construction (excludes renovations, conversions, mobile homes, public housing, and cottages);
- non-residential construction (excludes government and public institutions);
- transportation engineering construction (excludes public construction);
- electric power and communications engineering construction related to distribution for new customer hook-ups; and
- other activities related to construction.

For greater clarity, development construction refers to private new development construction, including redevelopment construction. Redevelopment construction is a major conversion, renewal or overhaul of an existing building.

This report's economic impact analysis assesses the impact of private development construction on Gross Domestic Product, output, employment, and household incomes in both the HRM and Nova Scotia for the five year period running from 2006 to 2010. The fiscal impact analysis measures the impact of development construction on federal, provincial and municipal taxes and fees.

At the federal and provincial level the fiscal impact includes income taxes, sales taxes, other commodity and excise taxes, payroll taxes, custom duties and crown corporation profits (liquor and gaming). At the municipal level the fiscal impact includes real property taxes, deed transfer taxes, building permits, developer fees and permits, capital contribution charges, infrastructure fees and local improvement charges.

The direct impacts are considered to be the initial economic activities generated by a development project, indirect impacts are economic activities occurring among other businesses and industries that supply inputs to the development project, and induced impacts are the effects of spending by households in the local economy as a result of both direct and indirect impacts from a development project.

It should be noted that it is beyond the scope of this study to provide a full cost-benefit analysis of private development construction from a municipal government perspective. Similarly, this report does not examine the inflationary impact on real estate prices from the various municipal government infrastructure charges/fees levied on developers. This report does not outline the development approval process.

This report features: an overview of the construction sector, an outline of development and redevelopment construction activity; a summary of economic and fiscal impacts; and conclusions and recommendations. Several appendices provide elaboration on the key findings of the report.

## 2. Overview of the Construction Industry in Nova Scotia

The construction industry is composed of new development construction as well as repairs/renovations/conversions, as defined by Statistics Canada in the following categories:

- residential construction;
- non-residential construction;
- engineering construction;
- repair construction;
- other activities related to construction.

Construction includes both private and public activity. Thus, private development construction is a sub-component of the construction sector.

The value of total construction activity in Nova Scotia over the last five years increased 22.9% to \$5.82 billion in 2010. Residential construction increased 20.1% to \$2.28 billion, non-residential construction increased only 2.8% to \$0.77 billion, engineering construction jumped 50.1% to \$1.46 billion, repair construction increased 21.5% to \$0.95 billion, and other activities related to construction rose 8.4% to \$0.36 billion.

While residential construction was reasonably strong over the five year period, the value of new home construction increased only 4.7% between 2006 and 2010, significantly slower than the 54.6% increase in the previous five year period. A drop in the number of housing starts partially explains the overall drop in the value of new home construction. Housing starts averaged 4,275 annually over the period 2006 to 2010, compared to 4,730 annually for the period 2001 to 2005, a decline of 9.6%. However, the slower growth in the value of new home construction primarily reflects the shift toward multi-unit construction. Single-detached housing units are typically higher valued than multi-unit housing. During the period 2006 to 2010, single-detached housing starts accounted for 60.5% of all housing starts in the province, a decline from the 65.1% share for the period from 2001-2005. This shift reflects the changing housing requirements of an aging population, a trend that is expected to continue. The slower growth in residential construction also reflects the impact of the recession in 2009, although the federal home renovation tax credit and the Nova Scotia new home construction rebate in 2009-2010 boosted activity.

The recession also had a considerable impact on other sub-sectors of the construction industry. Engineering construction was buoyed by public infrastructure stimulus in 2009 and 2010 (i.e., mainly for transportation engineering construction), as was institutional and government non-residential construction which rose 32.1%. However, other non-residential construction languished over the period 2006 to 2010, particularly industrial construction, which fell 28.2%, and commercial construction, which declined 3.1%.

Both these sub-sectors experienced a significant decline in 2007 well before the recession. Industrial construction is tied to activity in the goods sector, and manufacturing activity was weak in Nova Scotia in the latter part of the last

decade, especially manufacturing related to mining, oil and gas and utilities. Manufacturing shipments increased only 0.2% on average over the period from 2006 to 2010, displaying minimal growth to support industrial expansion. The weakness in the manufacturing sector was also reflected in high vacancy rates: according to Colliers International, industrial vacancy rates in Halifax were in the 5 to 9% range between 2006 and 2010. When the vacancy rate is high there is less likelihood of new construction, although it should be noted that the industrial vacancy rate is currently trending down.

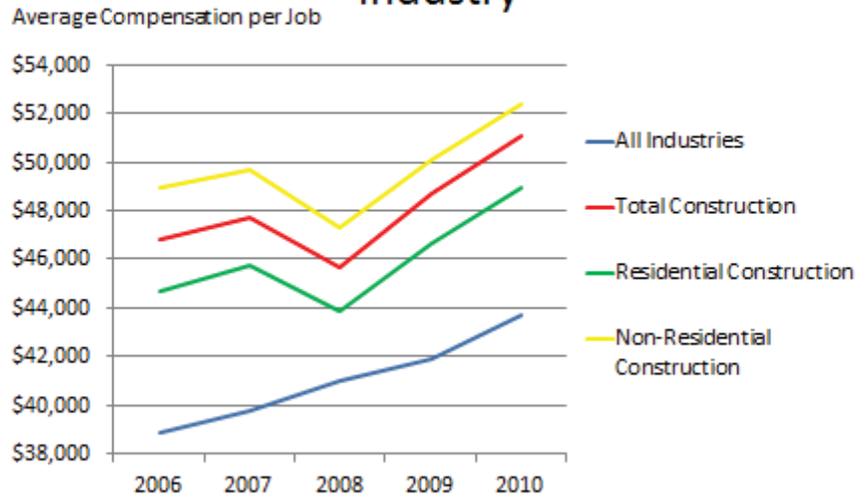
The slow growth in commercial construction over the period reflects a number of factors. Growth in retail and wholesale construction sector is closely correlated with consumer spending and disposable incomes. Over the period 2006 to 2009, while consumer spending increased an average of 4.2% per year to \$24.4 billion and personal disposable income rose 4.1% per year on average to \$24.6 billion, other factors such as an aging population and stagnant population growth depressed demand for new commercial construction. Nova Scotia's population grew only 0.1% per year on average over the period 2006 to 2010, reaching 942,506.

The slow rate of office construction also reflects the overall weakness in Nova Scotia's economy. According to Colliers International, office vacancy rates in Halifax remained high between 2006 and 2010, in the 8 to 10% range. Most of the new office construction in HRM has been developed outside the urban core.

Construction Gross Domestic Product (GDP) was \$1.86 billion in 2007 in current dollars or 6.1% of total Nova Scotia GDP in current dollars. Total employment in the construction sector was 35,220 jobs in 2010, with 4,205 more jobs than in 2006 according to labour productivity statistics. The construction sector created \$1.8 billion of direct income in 2010. Over the period 2006 to 2010, the average compensation per job in the construction sector was 17% higher than the average for all industries in Nova Scotia.

As can be seen in Chart 1 below, the average annual wages and salaries in non-residential construction were higher than in residential construction. It is obvious that the recession had a negative impact on average earnings in the construction sector in 2008, but the construction sector had a higher average compensation level at \$51,109 per job in 2010.

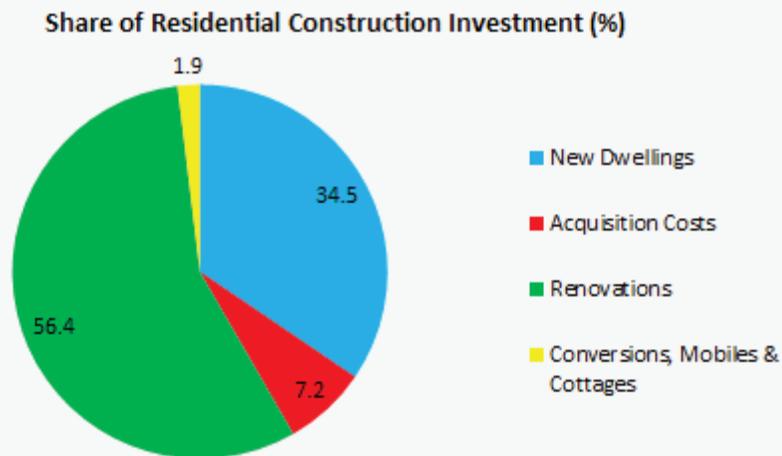
**Chart 1: Higher Wages in the Construction Industry**



Source: Statistics Canada

Residential construction investment is comprised of new dwellings (including singles, doubles, rows and apartments), conversions, acquisition costs, renovations, mobiles, and cottages. Chart 2 below displays the respective shares of these categories in 2010.

### Chart 2: New Dwellings Account for One-Third of Residential Construction in 2010



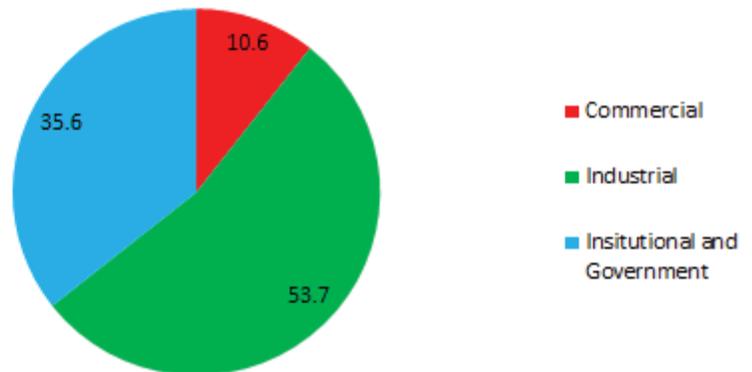
Source: Statistics Canada & APEC

Residential construction investment totalled \$2.28 billion in 2010. New dwelling construction accounted for \$0.79 billion, acquisition costs were \$0.16 billion and renovations amounted to \$1.28 billion. The majority of acquisition costs relate to new dwelling construction, as APEC estimates 98% of acquisition costs were for private new construction in 2010. The residential construction sector created 14,040 direct jobs and \$687 million in direct income in 2010. Since renovations, conversions, mobiles, and cottages are not part of private new development construction, the amount of investment created from new development is less than 42% of total residential investment.

Non-residential construction investment consists of commercial, industrial, and institutional and government investment. Non-residential construction investment amounted to \$765 million in 2010. Non-residential investment resulted in 7,245 direct jobs and \$379 million in direct incomes in 2010. Chart 3 below highlights that nearly two-thirds of non-residential construction is commercial and industrial, with industrial accounting for over half of non-residential construction. Most institutional and government investment is public, as APEC estimates only 14.3% of institutional and government investment was related to the private sector in 2010.

### Chart 3: Commercial & Industrial Account for Two-Thirds of 2010 Non-Residential Construction

Share of Non-Residential Construction Investment (%)

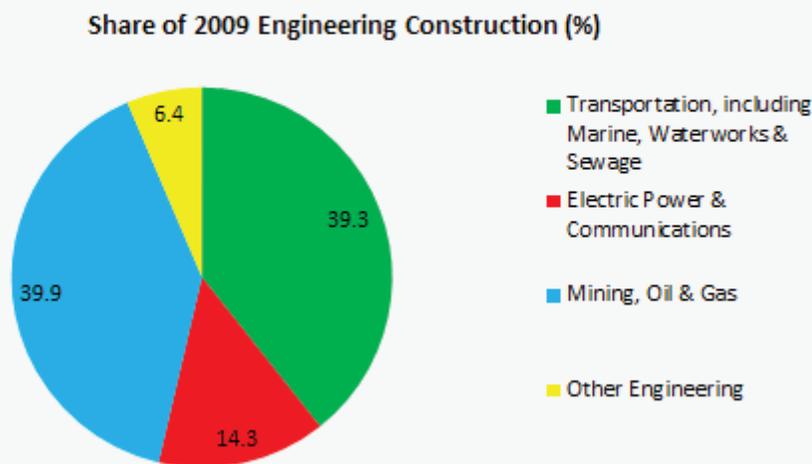


Source: Statistics Canada & APEC

The value of non-residential building permits was \$678 million in 2010 or 88.6% of the value of non-residential construction investment in Nova Scotia. The value of building permits is lower than construction investment because it does not include legal fees and architecture costs or any changes to the project once construction has begun.

Engineering construction is composed of transportation engineering construction (including marine, waterworks and sewage), oil and gas engineering construction, electric power engineering construction, communications engineering construction, and other engineering construction. Engineering construction totalled \$1.46 billion in 2010. Chart 4 below highlights that transportation engineering accounted for over 39% of total engineering construction in 2009, which is where the bulk of private engineering construction related to new development resides, in addition to a small amount of additional investment under electric power and communications for new power poles and phone/cable lines, etc. On average, APEC estimates that over 10% of engineering construction relates to new development construction, as the bulk of it is public transportation, oil and gas, electric power generation and transmission, and other engineering construction.

**Chart 4: Transportation Construction Accounts for Two-Fifths of Engineering Construction**



Repair construction in 2010 was \$951 million. Other activities related to new construction amounted to \$364 million in 2010. APEC estimates that over 27% of this amount related to private new development construction.

### 3. A Focus on Development Construction Activity

This study is focused on private development construction, which has been noted as a subset of the greater construction sector.

Private development construction averaged \$1.67 billion annually over the period 2006 to 2010 or an estimated one-third of total construction investment on average. This reflects the exclusion of repair and renovation construction, mobiles and cottages, and public spending, as well as the exclusion of most engineering construction.

In this study, development construction sector includes:

- private residential construction;
- private non-residential construction;
- private transportation engineering construction;
- electric power and communication distribution construction for new hook-ups; and
- other activities related to construction linked to private development.

Residential development construction incorporates all new private dwelling construction, including singles, doubles, row houses, and apartments, as well as associated acquisition costs. It does not include public housing, conversions, renovations, mobiles or cottages, as these are not private, not new or not typically associated with development construction.

Non-residential development construction includes all commercial and industrial construction, as well as a limited amount of institutional construction. Most institutional construction is considered public and therefore excluded, but the construction of nursing homes, day cares, and churches and other religious buildings are considered development construction.

While most transportation construction is public, developers are either directly or indirectly contributing to transportation infrastructure funding. Developers contribute directly to transportation infrastructure when they construct roads, bridges, and sidewalks within the development, whereby they incur 100% of the cost. This infrastructure is deeded to the municipality and the municipality is responsible for future maintenance, which the municipality can fund via the property tax revenue stream generated by the development. Developers contribute indirectly to transportation infrastructure through development levies, capital contribution charges, infrastructure fees, and local improvement charges paid to municipalities to upgrade or build new streets, interchanges, sidewalks and curbs, traffic signals, water, wastewater, and stormwater systems within or adjacent to the development, whereby developers pay a portion of the total cost of this infrastructure and the municipality incurs the residual cost of the infrastructure. Ultimately, developers have to pass-on 100% of the cost of this infrastructure - including the development levies, capital contribution charges,

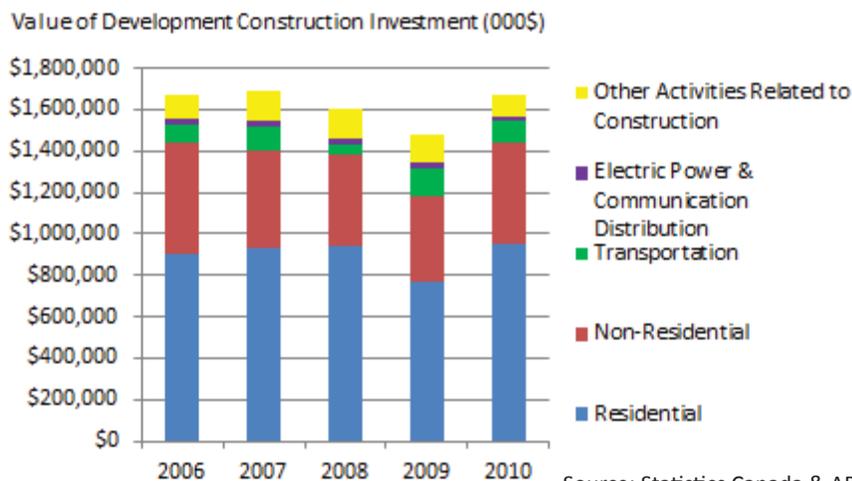
infrastructure fees, and local improvement charges paid to municipalities - to those individuals or businesses that purchase or lease residential or commercial real estate within the development.

A 2006 study undertaken for the Halifax Regional Municipality suggested that infrastructure charges, land dedications, development fees, building permit fees, municipal charges, land transfer taxes, and HST added as much as 19.7% to the price of a single-detached house in 2002, not including all of the costs to build the infrastructure. By comparison, APEC estimates that the sum of property taxes, deed transfer taxes, building permits, other developer permits and fees, development levies, capital contribution charges, infrastructure fees, and local improvement charges, and HST associated with private residential construction represented 21.7% of the value of private residential construction in 2010. These various taxes, charges, and fees have an impact on housing affordability.

Since new development often requires additional investment by utilities in distribution construction (i.e., utility poles, electrical wires, telephone/cable TV lines, etc.), this construction is also included. Other activities related to construction includes project management, land development and other services incidental to construction (that provide on-site services, but do not directly contribute to the building of the structure).

Chart 5 below highlights the relative magnitude of each development construction activity. Between 2006 and 2010, Nova Scotia development construction averaged \$1.67 billion. Like a number of sectors, there was a slowdown in development construction in 2009. New private residential construction comprises the largest component of development construction, at 58.3% on average. Private non-residential construction has the second largest share, at 28.3%. Private transportation engineering construction accounts for 8.5%, electric power and communications distribution construction for new customers makes up 1.6% and other activities related to private development construction comprises 7.6% of total private development construction, on average.

**Chart 5: Nova Scotia Development Construction by Type of Activity**



## 4. Summary of Economic & Fiscal Impacts

### *Nova Scotia*

Over the period 2006 to 2010, annual direct private development construction spending averaged \$1.67 billion in Nova Scotia. It peaked at \$1.74 billion in 2007, but by 2010 private development construction had almost returned to its peak – attaining \$1.73 billion in 2010. Private development construction has been slow to return to its previous peak due to lingering effects of the recession. This level of direct investment created an estimated \$749 million in direct GDP at basic prices on average over the period 2006 to 2010.

Including indirect and induced economic spin-offs, development and redevelopment construction resulted in \$1.28 billion in GDP at basic prices on average over the period 2006 to 2010. This represented 68.9% of construction sector GDP in 2007 or 4.2% of total GDP for all industries in 2007. The total economic impact from private development construction led to \$934 million in labour income and 19,795 FTE jobs on average over the period 2006 to 2010. Figure 1 below summarizes the economic impacts on Nova Scotia.

**Figure 1 – Average Annual Economic Impact on Nova Scotia**



On average over the period 2006 to 2010, private development construction generated \$350 million annually in direct tax revenue at the federal, provincial, and municipal level. This includes over \$139 million in federal taxes, \$118 million in provincial taxes and \$92 million in municipal taxes and fees. Net GST/HST on new housing amounted to \$86 million on average.

Including economic spin-offs, the total fiscal impact from private development construction averaged \$554 million over the period 2006 to 2010. The induced impact's significant labour income results in personal income taxes and the spending of this income leads to substantial sales and excise taxes, as well as

corporate income taxes.

Tables 1A and 1B below summarize the economic and fiscal impacts in Nova Scotia.

<b>Economic Impact</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>(000\$ unless otherwise specified)</i>				
Output	\$1,670,353	\$547,211	\$448,702	\$2,666,266
GDP at basic prices	\$749,048	\$253,972	\$277,085	\$180,104
Household Income	\$617,517	\$160,781	\$155,834	\$934,131
Employment (# Full-Time Equivalents)	12,596	3,882	3,317	19,795

Table 1A  
Nova Scotia  
Average 2006 - 2010

<b>Fiscal Impact</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>(000\$ unless otherwise specified)</i>				
Federal	\$138,611	\$43,683	\$66,272	\$248,566
Provincial	\$119,197	\$28,693	\$64,265	\$212,155
Municipal	\$92,090	\$648	\$622	\$93,360
Total	\$349,898	\$73,025	\$131,159	\$554,081

Table 1B  
Nova Scotia  
Average 2006-2010

To get a clearer picture of the private development construction impact on Nova Scotia, this sector's contribution to direct GDP is larger than the combined sum of the agriculture, forestry and fishing sector (\$662 million) and the utilities sector (\$719 million) in 2007, while being on par with the accommodation and food services sector (\$747 million) in 2007. In addition, it created \$617.5 million in direct labour income and 12,596 full-time equivalent (FTE) jobs. This suggests the average labour income per employee was \$49,024, or 19.4% above the provincial average over the same period.

The above impacts can be used to determine total economic impact multipliers by dividing the total economic impact estimates by the direct economic impact estimates. The average total economic impact multipliers for the private development construction sector over the period 2006 to 2010 were as follows:

- for every one dollar of direct output, \$1.596 in total output;
- for every one dollar in direct GDP, \$1.709 in total GDP;
- for every one dollar in direct household income, \$1.513 in total household income; and
- for every one full-time equivalent (FTE) direct job in employment, 1.572 in total FTE jobs.

These multipliers appear to be quite reasonable, as the household income multiplier for Nova Scotia across all sectors usually averages between 1.3 and 1.4.

*Comparison to Other Sectors in Nova Scotia*

Table 1C compares direct GDP and direct employment for the private development construction sector to some of the business sectors that it ranks higher than. The comparison for direct GDP is based on 2007 data, while the comparison for direct employment is based on 2010 data.

Table 1C:  
Comparison of Private  
Development Construction  
to Other Sectors Based on  
Direct Impacts

<b>Sector</b>	<b>GDP (2007) (Millions \$)</b>	<b>Sector</b>	<b>Employment (2010) (# jobs)</b>
Private Development Construction	\$780.7	Private Development Construction	13,081
Other Services	\$764.8	Agriculture, Forestry, & Fishing	12,820
Accommodation & Food Services	\$747.1	Information and Culture	7,855
Utilities	\$718.5	Arts, Entertainment & Recreation	6,960
Administrative and Support, Waste Management and Remediation Services	\$666.3	Mining, Oil and Gas	2,495
Agriculture, Forestry, & Fishing	\$661.7	Utilities	2,370

*Comparison to Tourism Sector in Nova Scotia*

The private development construction sector has a larger direct economic impact than the tourism sector. Nova Scotia's Tourism Economic Impact Model (TEIM) estimated the economic impact of 2008 tourism expenditures.<sup>1</sup> Table 1D below highlights a comparison of the two sectors. Private development construction created more direct GDP, household income and federal and provincial taxes than the tourism sector in 2008. The average household income per job in the private development construction sector was 2.3 times higher than the average income per job in the tourism sector. The TEIM did not provide estimates of the impact on municipal taxes.

<b>Economic Indicator (millions \$ unless otherwise specified)</b>	<b>Private Development Construction</b>	<b>Tourism</b>
<b>GDP</b>	<b>\$736</b>	<b>\$646</b>
<b>Household Income</b>	<b>\$607</b>	<b>\$475</b>
<b>Employment (# FTE's)</b>	<b>12,378</b>	<b>22,400</b>
<b>Average Income per Employee (\$)</b>	<b>\$49,023</b>	<b>\$21,205</b>
<b>Federal &amp; Provincial Taxes</b>	<b>\$259</b>	<b>\$231</b>

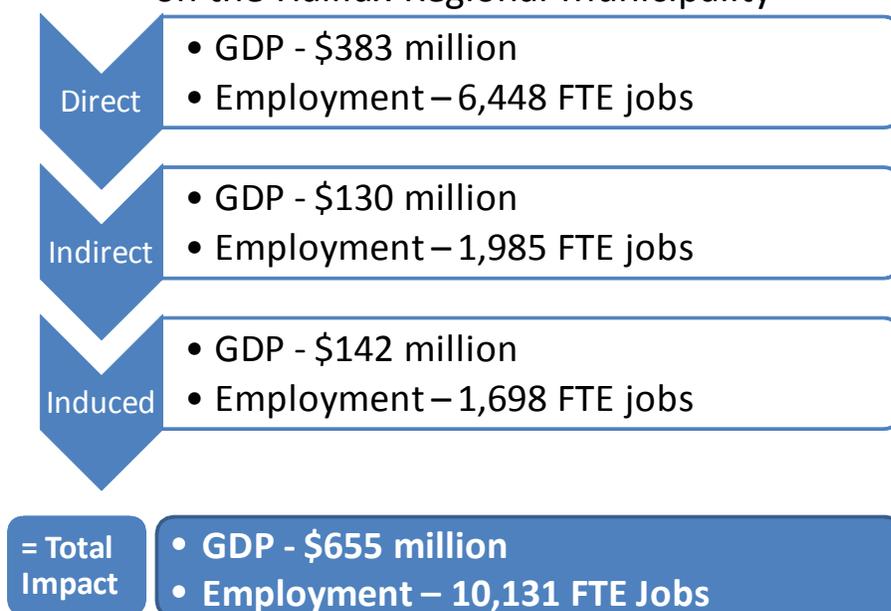
Table 1D:  
Direct Economic Impact  
Comparison - 2008

<sup>1</sup> Department of Tourism, Culture and Heritage, *Annual Accountability Report, 2010-2011*, see pg. 8

*Halifax Regional Municipality*

The HRM accounts for a significant amount of private development construction in Nova Scotia. In terms of direct output, private development construction averaged \$854 million over the period 2006 to 2010. This accounted for over half of total private development construction in Nova Scotia. HRM private development construction generated nearly \$383 million in direct GDP on average over the period 2006 to 2010. Private development construction created \$316 million in direct labour income and 6,448 direct FTE jobs on average over this period. The average income per job is on par with the average for Nova Scotia because the Nova Scotia I-O model was used to generate the estimates. The total economic impact, including spin-offs, highlights that \$655 million in GDP at basic prices was created on average over the period 2006 to 2010, as well as \$478 million in labour income and 10,131 FTE jobs. Figure 2 below highlights the economic impacts on the HRM.

**Figure 2 – Average Annual Economic Impact on the Halifax Regional Municipality**



The fiscal impact of private development construction in the HRM shows that \$196 million in direct taxes and fees was generated by this industry on average over the period 2006 to 2010. This included \$70 million in federal taxes, \$58 million in provincial taxes and \$68 million in municipal taxes and fees. Net GST/HST on new housing, after deducting rebates, averaged an estimated \$41 million per year over the period 2006 to 2010. In the HRM, average municipal taxes and fees generated by private development construction over the period 2006 to 2010 represented 10.7% of HRM municipal tax revenues in fiscal year 2010/11. Including spin-offs, development construction stimulated \$301 million in federal, provincial, and municipal taxes on average over the period 2006 to 2010.

Tables 2A and 2B below provide an overview of the economic and fiscal impacts in the HRM.

Table 2A  
Halifax Regional  
Municipality  
Average 2006-2010

<b>Economic Impact</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>(000\$ unless otherwise specified)</i>				
Output	\$854,303	\$279,897	\$229,623	\$1,363,823
GDP at basic prices	\$382,856	\$129,876	\$141,798	\$654,529
Household Income	\$315,949	\$82,215	\$79,748	\$477,911
Employment (# Full-Time Equivalents)	6,448	1,985	1,698	10,131

Table 2B  
Halifax Regional  
Municipality  
Average 2006-2010

<b>Fiscal Impact</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>(000\$ unless otherwise specified)</i>				
Federal	\$69,777	\$22,368	\$33,946	\$126,091
Provincial	\$58,531	\$14,675	\$32,899	\$106,105
Municipal	\$67,823	\$466	\$452	\$68,741
Total	\$196,132	\$37,509	\$67,296	\$300,937

Municipal taxes and fees on private development construction consists of property taxes, deed transfer taxes, building permits, other developer permits and fees, development levies, capital contribution charges, infrastructure fees, and local improvement charges. The latter four categories of charges and fees are linked to the HRM's capital budget (or consolidated annual financial statements) and the Halifax Regional Water Commission's annual report. Development levies are also recorded in the operating budget, but APEC has assumed that these amounts are equivalent to the various capital budget levies/charges/fees over the medium-term and has excluded them to avoid double-counting.

Table 2C below provides an average breakdown of the municipal taxes and fees over the period 2006 to 2010.

Table 2C  
Average 2006-2010

Halifax Regional Municipality	Value (Millions \$)
Property Taxes	\$14.7
Deed Transfer Tax	\$9.9
Building Permits	\$2.0
Other Developer Permits & Fees	\$0.8
Development Levies	\$6.1
Capital Contribution Charges	\$20.6
Infrastructure Fees	\$9.4
Local Improvement Charges	\$4.6
<b>Total Municipal Taxes and Fees</b>	<b>\$68.1</b>

As stated previously, developers pay 100% of the cost of the roads, bridges, and sidewalks within a development. In addition, some municipalities, such as the HRM, require developers to pay for a portion of new municipal infrastructure via various fiscal instruments including developer levies, capital contribution charges (CCC), infrastructure fees, and local improvement charges. For example, developments in Bedford West, Bedford South, Portland Hills, Russell Lake West, Morris Lake and Timberlea (Brunello Estates) are all subject to CCC. Between 2008 and 2020, the developers of Bedford West are required to fund \$16.4 million of public infrastructure via CCC, including interest, for a highway interchange, road widening, and traffic signals. This does not include \$151.7 million the developers will pay for local roads over the life of this particular project, a portion of which is implicitly embedded in APEC's estimate of private transportation construction from 2006 to 2010. The Halifax Regional Water Commission also levies capital contribution charges for sewer redevelopment and wastewater infrastructure. These various charges/fees are not only captured in the fiscal impact analysis above, they are also encapsulated in the economic impact analysis. On average, 60% of the \$68 million in taxes and fees linked to development are for development levies, CCC, infrastructure fees, and local improvement charges.

## 5. Conclusions & Recommendations

Private development construction comprises a large portion of total construction investment and makes a significant contribution to the Nova Scotia economy in terms of output, GDP, incomes, and employment. It also results in significant taxes and fees for all three levels of government, as well as reducing some municipalities' cost of public infrastructure by requiring developers to pay for infrastructure within a development and a portion of the public infrastructure required for a development project adjacent to the development.

Over the period 2006 to 2010, annual private development construction created on average:

- 12,596 direct jobs in Nova Scotia and 6,448 direct jobs in the HRM;
- \$618 million in direct labour income in Nova Scotia and \$316 million in labour income in the HRM;
- \$749 million in direct GDP in Nova Scotia and \$383 million in direct GDP in the HRM; and
- \$350 million in direct government taxes and fees in Nova Scotia and \$196 million in direct taxes and fees in the HRM - for all three levels of government combined;

Via economic multipliers, these direct impacts created spin-off impacts in terms of indirect and induced impacts. Every dollar in direct GDP impact from the private development construction sector led to almost a \$1.71 in total GDP impacts, including spin-offs. Every dollar in direct household income from the private development construction sector generated \$1.51 in total household income, including spin-offs. Every direct full-time equivalent job created by the private development construction sector resulted in a total of 1.57 FTE jobs of employment, including spin-offs. The private development construction sector generates more direct GDP than the tourism sector or the combined sum of the agriculture, forestry and fishing sector.

High-paying jobs in the private development construction sector generate a significant amount of tax revenues for the federal and provincial government. In addition, new housing is subject to GST/HST, net of rebates. Likewise, new development construction adds to property assessment values, thereby generating municipal property tax and deed transfer taxes when property changes hands.

These measurements of the economic impact of private development construction activity in Nova Scotia illustrate its importance to the provincial economy. It is worth noting that the combined impact of this industry in terms of direct, indirect, and induced impacts exceeds the estimated economic impact of the combat vessel project under the national shipbuilding procurement strategy awarded to Irving Shipbuilding in Nova Scotia, as documented in a recent Greater Halifax Partnership study. The Conference Board of Canada's estimates of direct, indirect, and induced impacts indicate that the larger combat

vessel portion of the shipbuilding strategy could create 8,453 jobs and \$447 million in income annually in Nova Scotia. In terms of direct economic impacts, the private development sector is larger than the tourism sector in Nova Scotia.

For HRM, municipal taxes and fees from private development construction contribute a significant portion of the tax base, at an estimated \$68 million annually for the period 2006 to 2010, providing approximately 10% of HRM's tax revenues. Of the \$68 million, approximately 60% of the taxes and fees are sourced from the various charges/fees on public infrastructure that developers pay.

Given the importance of private development construction to the province and municipalities, this study has highlighted two areas that require further exploration.

First, municipalities and private developers require a development approval process that both meets the regulatory requirements of municipal and provincial governments and offers a transparent and efficient review process for project proponents. This requires meeting the standards of regulatory best practices for new and existing regulations while at the same time streamlining the development review process. Given the importance of urban development in HRM to the provincial economy, it is particularly important that the province's largest municipality takes steps to improve its development review processes.

Secondly, private development construction provides significant revenues for municipalities, allowing municipalities to mitigate property tax increases. However, recent increases in charges and fees for development projects in HRM have led to claims that this places an unfair burden on private developers and could impede future development. Governments need to recognize that there are increasing risks for development proponents - due to changes in the local and global economy, including cost pressures and slowing demand for building infrastructure related to an aging population, the wind-down of public infrastructure stimulus, the slowdown in non-renewable energy investment and increasing environmental standards – and develop a standard for charges and fees which ensures the financial burden on private developers is efficient, fair and reflects true value.

A number of organizations are making recommendations to improve the development process. The Greater Halifax Partnership's latest strategy recommends that there should be a review of the HRM's and Nova Scotia's regulatory, tax and development fees and processes to make private land development inside the regional centre more attractive. This report suggests taxes, charges, and fees on private residential construction add as much as 20% to the price of a new home.

# Description of Economic Impact Analysis & Fiscal Analysis

## Appendix A

### **Description of Economic Impact Analysis**

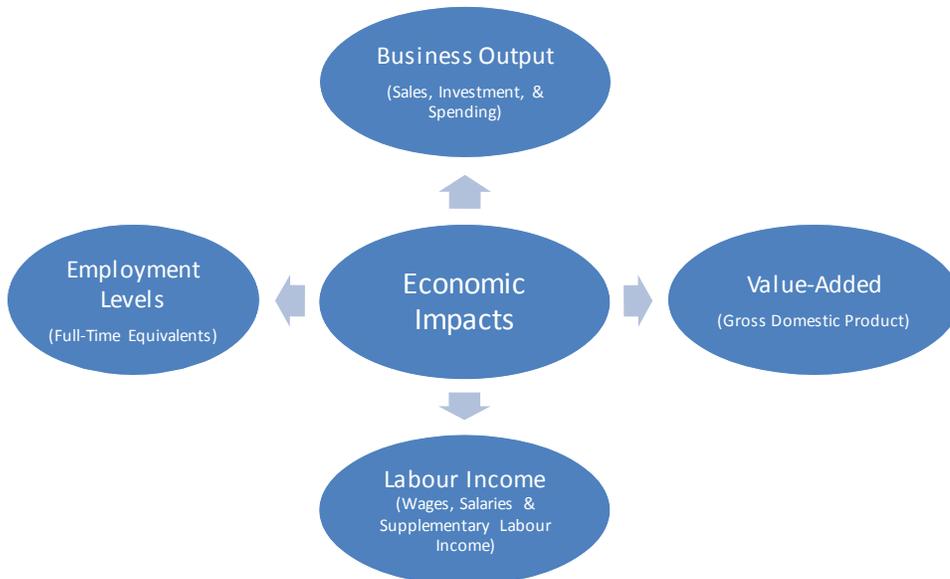
The economic impact analysis was conducted using Statistics Canada's latest Input-Output (I-O) Model. The I-O model provides the framework for estimating Gross Domestic Product (GDP) within the national and provincial economic accounts. It also displays the economic linkages between households, businesses and government in terms of spending, incomes, output, and investment, as well as providing information on trade activity.

The I-O model can be used to determine economic multipliers at the direct, indirect, and induced level. Private development construction investment is considered a direct economic impact. The indirect economic impact results from economic activities (i.e., spending and investment) undertaken by the suppliers of the direct development construction activity. This would include speciality trade contractors and sub-contractors (carpenters, plumbers, electricians), as well as retailers (building supplies, office products, fuel products), wholesalers (machinery and equipment, building supplies, office products), manufacturers (cement, paving, sawmills), utilities (water, telephone, electricity), and the rest of the service industry (lawyers, architects, engineers, accountants, mortgage brokers) providing business inputs to the developers. An I-O model captures these inter-industry linkages. The induced economic impact is a result of spending of incomes earned by employees in both the direct and indirect phases.

An I-O model is able to estimate final demand, including consumption, investment, government spending and net exports. These are the key components of expenditure-based GDP. By estimating the primary inputs of each industry, the I-O model also estimates labour income, unincorporated income, corporate profits before taxes, and the remaining key components of income-based GDP. The results presented in this report are for Nova Scotia and the HRM only. GDP in this report is measured in basic prices, the standard for industry comparisons. Employment is measured in full-time equivalents.

Figure 3 below highlights the economic impacts presented in this report.

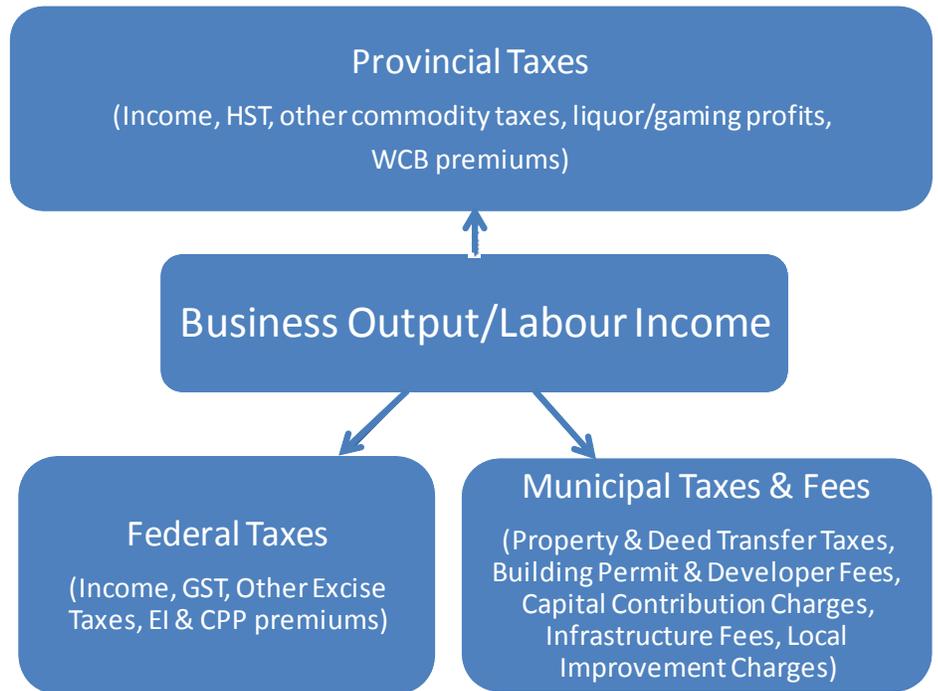
## Figure 3: Economic Impacts



### Description of Fiscal Impact Analysis

The fiscal impact analysis in this report measures the impact on federal, provincial, and municipal taxes and fees from the economic activity created by development construction. Labour income earned due to employment created during the direct, indirect, and induced phases of economic activity results in personal income tax, sales taxes, other commodity and excise taxes and duties, as well as payroll taxes (Employment Insurance premiums, Canada Pension Plan premiums and Workers Compensation Board premiums), and crown corporation profits (liquor and gaming). Likewise, business output (including sales, investment and spending) leads to corporate income taxes, sales taxes, other commodity and excise taxes and duties, as well as payroll taxes. Business investment (including residential investment) by developers increases assessed property values and in some cases, changes in real property ownership. This investment can result in real property taxes, deed transfer taxes, building permit and developer fees, capital contribution charges, infrastructure fees, and local improvement charges. Figure 4 below highlights the fiscal impacts presented in this report.

### Figure 4: Fiscal Impacts



# Economic and Fiscal Impacts

## Appendix B

Nova Scotia  
2006

<b>Economic Impact</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>(000\$ unless otherwise specified)</i>				
Output	\$1,704,711	\$558,528	\$458,255	\$2,721,494
GDP at basic prices	\$763,864	\$259,152	\$282,983	\$1,305,999
Household Income	\$630,507	\$164,048	\$159,151	\$953,706
Employment (# Full-Time Equivalents)	12,869	3,961	3,388	20,218

<b>Fiscal Impact</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>(000\$ unless otherwise specified)</i>				
Federal	\$149,933	\$46,663	\$71,228	\$267,825
Provincial	\$121,571	\$29,502	\$65,291	\$216,364
Municipal	\$80,485	\$555	\$538	\$81,578
Total	\$351,989	\$76,721	\$137,058	\$565,767

<b>Economic Impact</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>(000\$ unless otherwise specified)</i>				
Output	\$911,999	\$298,811	\$245,194	\$1,456,004
GDP at basic prices	\$408,596	\$138,639	\$151,413	\$698,648
Household Income	\$337,343	\$87,760	\$85,155	\$510,258
Employment (# Full-Time Equivalents)	12,869	2,119	1,812	10,818

<b>Fiscal Impact</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>(000\$ unless otherwise specified)</i>				
Federal	\$80,230	\$24,967	\$38,113	\$143,309
Provincial	\$65,092	\$15,784	\$34,935	\$115,811
Municipal	\$51,656	\$350	\$340	\$52,346
Total	\$196,978	\$41,101	\$73,388	\$311,467

Nova Scotia  
2007

<b>Economic Impact</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>(000\$ unless otherwise specified)</i>				
Output	\$1,740,439	\$570,145	\$467,388	\$2,777,972
GDP at basic prices	\$780,736	\$264,648	\$288,623	\$1,334,007
Household Income	\$643,302	\$167,544	\$162,323	\$973,169
Employment (# Full-Time Equivalents)	13,119	4,045	3,455	20,619

<b>Fiscal Impact</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>(000\$ unless otherwise specified)</i>				
Federal	\$150,973	\$46,157	\$70,742	\$267,872
Provincial	\$122,957	\$28,514	\$64,426	\$215,897
Municipal	\$91,840	\$642	\$614	\$93,096
Total	\$365,770	\$75,314	\$135,781	\$576,865

<b>Economic Impact</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>(000\$ unless otherwise specified)</i>				
Output	\$892,765	\$292,484	\$239,888	\$1,425,136
GDP at basic prices	\$400,228	\$135,733	\$148,137	\$684,097
Household Income	\$330,107	\$85,925	\$83,313	\$499,345
Employment (# Full-Time Equivalents)	6,735	2,075	1,774	10,818

<b>Fiscal Impact</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>(000\$ unless otherwise specified)</i>				
Federal	\$76,212	\$23,688	\$36,308	\$136,208
Provincial	\$60,919	\$14,628	\$33,066	\$108,613
Municipal	\$67,668	\$457	\$440	\$68,566
Total	\$204,799	\$38,773	\$69,815	\$313,386

Nova Scotia  
2008

<b>Economic Impact</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>(000\$ unless otherwise specified)</i>				
Output	\$1,641,453	\$537,744	\$440,942	\$2,620,138
GDP at basic prices	\$736,085	\$249,576	\$272,293	\$1,257,954
Household Income	\$606,834	\$157,999	\$153,139	\$917,971
Employment (# Full-Time Equivalents)	12,378	3,815	3,260	19,453

<b>Fiscal Impact</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>(000\$ unless otherwise specified)</i>				
Federal	\$135,053	\$42,013	\$63,026	\$240,092
Provincial	\$123,815	\$29,901	\$64,917	\$218,633
Municipal	\$88,033	\$612	\$588	\$89,234
Total	\$346,901	\$72,527	\$128,531	\$547,959

<b>Economic Impact</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>(000\$ unless otherwise specified)</i>				
Output	\$773,331	\$253,377	\$207,909	\$1,234,618
GDP at basic prices	\$346,477	\$117,559	\$128,389	\$592,425
Household Income	\$286,048	\$74,416	\$72,207	\$432,671
Employment (# Full-Time Equivalents)	5,839	1,797	1,538	9,173

<b>Fiscal Impact</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>(000\$ unless otherwise specified)</i>				
Federal	\$61,710	\$19,806	\$29,718	\$111,235
Provincial	\$54,091	\$14,094	\$30,609	\$98,794
Municipal	\$62,705	\$426	\$414	\$63,545
Total	\$178,507	\$34,326	\$60,741	\$273,574

Nova Scotia  
2009

<b>Economic Impact</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>(000\$ unless otherwise specified)</i>				
Output	\$1,530,961	\$501,497	\$410,997	\$2,443,456
GDP at basic prices	\$687,017	\$232,814	\$253,800	\$1,173,632
Household Income	\$565,753	\$147,395	\$142,739	\$855,888
Employment (# Full-Time Equivalents)	11,534	3,559	3,038	18,131

<b>Fiscal Impact</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>(000\$ unless otherwise specified)</i>				
Federal	\$118,569	\$39,119	\$59,051	\$216,739
Provincial	\$93,625	\$24,716	\$56,274	\$174,615
Municipal	\$89,858	\$648	\$616	\$91,122
Total	\$302,052	\$64,483	\$115,941	\$482,476

<b>Economic Impact</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>(000\$ unless otherwise specified)</i>				
Output	\$759,344	\$248,773	\$204,036	\$1,212,153
GDP at basic prices	\$340,415	\$115,448	\$125,997	\$581,860
Household Income	\$280,774	\$73,084	\$70,861	\$424,720
Employment (# Full-Time Equivalents)	5,729	1,765	1,508	9,002

<b>Fiscal Impact</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>(000\$ unless otherwise specified)</i>				
Federal	\$57,561	\$19,419	\$29,316	\$106,296
Provincial	\$44,049	\$12,260	\$27,937	\$84,246
Municipal	\$66,368	\$460	\$443	\$67,271
Total	\$167,978	\$32,139	\$57,697	\$257,813

Nova Scotia  
2010

<b>Economic Impact</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>(000\$ unless otherwise specified)</i>				
Output	\$1,734,199	\$568,141	\$465,930	\$2,768,271
GDP at basic prices	\$777,538	\$263,668	\$287,724	\$1,328,930
Household Income	\$641,189	\$166,917	\$161,817	\$969,923
Employment (# Full-Time Equivalents)	13,081	4,030	3,445	20,556

<b>Fiscal Impact</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>(000\$ unless otherwise specified)</i>				
Federal	\$138,525	\$44,464	\$67,312	\$250,301
Provincial	\$134,018	\$30,831	\$70,416	\$235,265
Municipal	\$110,233	\$784	\$755	\$111,773
Total	\$382,776	\$76,080	\$138,483	\$597,339

<b>Economic Impact</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>(000\$ unless otherwise specified)</i>				
Output	\$934,076	\$306,037	\$251,088	\$1,491,201
GDP at basic prices	\$418,564	\$142,000	\$155,053	\$715,617
Household Income	\$345,471	\$89,889	\$87,203	\$522,564
Employment (# Full-Time Equivalents)	7,051	2,171	1,856	11,078

<b>Fiscal Impact</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>(000\$ unless otherwise specified)</i>				
Federal	\$73,173	\$23,960	\$36,274	\$133,406
Provincial	\$68,506	\$16,608	\$37,947	\$123,061
Municipal	\$90,717	\$640	\$620	\$91,977
Total	\$232,397	\$41,208	\$74,841	\$348,445

## Appendix C

# Methodology for Estimating the Value of New Development Construction in Nova Scotia & the HRM

## Methodology for Estimating the Value of New Development Construction in Nova Scotia

The value of development construction was sourced mainly from Statistics Canada, especially for residential and non-residential construction. The quarterly survey of residential construction investment provides estimates of new dwelling construction. Estimates of public housing expenditures from the Canada Mortgage and Housing Corporation (CMHC) and the Nova Scotia Department of Finance budget estimates were deducted from new dwelling construction to provide an estimate of private new dwelling construction.

Acquisition costs for new housing includes GST/HST on new housing, deed transfer tax, mortgage insurance premiums, and land subdivision and land development expenditures. Most of these sub-components are not readily accessible from any data source. The value of new home construction in a given year multiplied by the GST/HST rate in effect at the time less GST/HST rebates on new housing provided an estimate of net GST/HST revenues on new housing. The federal Department of Finance and the Nova Scotia Department of Finance, along with a Statistics Canada study on the fair market value of new homes in Canada, provided sufficient data to estimate GST/HST rebates on new housing. Deed transfer taxes on new housing was estimated based on the average effective deed transfer tax rate on new housing multiplied by the value of new housing. The average effective deed transfer tax rate was estimated based on the result of the deed transfer tax divided by the sum of new and existing housing sales (from the CMHC and the Canadian Real Estate Association) and non-residential construction investment from Statistics Canada. The average effective deed transfer tax rate in Nova Scotia is approximately 1%. Mortgage premiums were estimated based on the average mortgage insurance premium rate (assumed to be 2.75%) multiplied by the total value of new housing mortgages from the CMHC. Land subdivision and land development is effectively the residual of total acquisition costs less GST/HST on new housing, less deed transfer taxes on new housing, less mortgage insurance premiums. The estimates of land development and land subdivision expenditures are deemed accurate based on a relative comparison to estimates of land subdivision and land development from Statistics Canada for the period 1998 to 2000. Statistics Canada provides an estimate of total acquisition costs and this was reconciled with the sum of its components.

The quarterly survey of non-residential construction investment from Statistics Canada provides estimates of new industrial, commercial, and institutional and government investment. The annual survey of capital and repair expenditures from Statistics Canada provided sufficient data either at the national level or provincial level to estimate construction investment in religious buildings (i.e., churches), nursing homes, and social services (i.e., day cares). All remaining institutional and government investment was deemed public and excluded. Deed transfer tax on new, private non-residential construction was estimated based on a pro-rated calculation.

Transportation engineering construction data was sourced from Statistics Canada's survey of capital and repair expenditures. Private spending on highways, roads, streets and bridges was estimated as the residual of transportation engineering construction on highways, roads, streets and bridges less federal and provincial government capital spending on highways, roads and bridges sourced from the Nova Scotia Department of Finance budget estimates, less municipal government capital spending on transportation sourced from the Department of Service Nova Scotia and Municipal Services' Municipal Statistics, less Halifax-Dartmouth Bridge Commission annual reports' capital expenditures, less Highway 104 Western Alignment Corporation annual reports' capital expenditures. Added to this estimate of private spending on highways, roads, streets and bridges was the sum of municipal development levies, capital contribution charges, infrastructure fees, and local improvement charges paid to municipalities to upgrade or build new streets, interchanges, sidewalks and curbs, traffic signals, water, wastewater, and stormwater systems. This data was sourced from a variety of municipal and provincial government documentation, such as (but not limited to) municipal government capital budgets, municipal government annual consolidated financial statements, municipal water commission annual reports, capital cost contribution project-specific memos and the Department of Service Nova Scotia and Municipal Services' Municipal Statistics.

Estimates of electric power distribution capital expenditures for new customers was based on a limited set of annual capital expenditure (ACE) plans from Nova Scotia Power that provided that level of detail for Nova Scotia for 2009 and 2010. The remaining years' data for 2006 to 2008 were pro-rated based on a reasonable methodology linked to Nova Scotia Power's total capital expenditures. Estimates of telephone and cable line expenditures from Statistics Canada were accessed for 2006 and 2007 and pro-rated to new customers only based on Nova Scotia Power's new customer distribution capital expenditures as a share of total distribution capital expenditures. The remaining years were estimated based on a pro-rated share of Bell Aliant's capital expenditures for the period 2008 to 2010.

Statistics Canada does not provide estimates of other activities related to construction activities at the provincial level, but it does require this information to estimate total construction activity. Total construction investment is the sum of:

- residential construction;
- non-residential construction;
- engineering construction;
- repair construction; and
- other activities related to construction.

Statistics Canada provides estimates of total construction investment and all of its components by province, except for other activities related to construction, based on the quarterly surveys of residential and non-residential construction and

the annual survey of capital and repair construction. Thus, other activities related to construction can be estimated as the residual. This estimate was pro-rated to estimate the new development portion based on new development's construction spending as a share of total construction spending (the latter includes repair and renovations, as well as public spending, which are not part of new development).

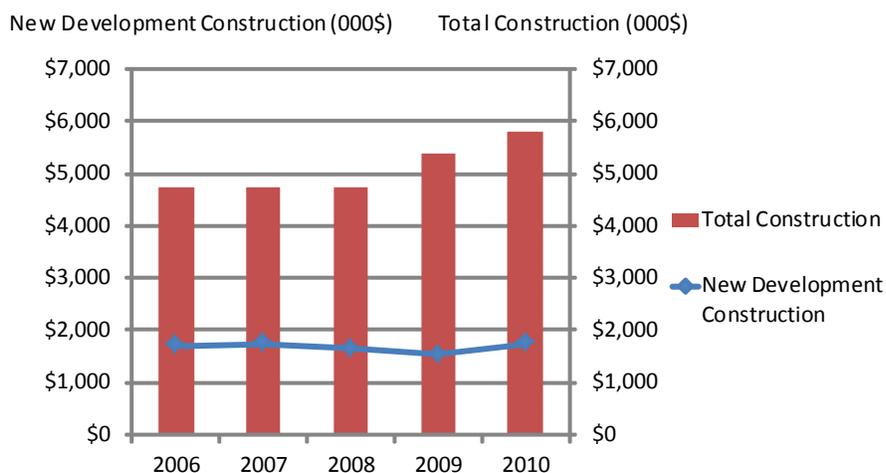
The outcome of the above analysis is displayed in Chart 6 on the following page, which highlights that new development construction averaged \$1.67 billion over the period 2006 to 2010 or one-third of total construction investment of \$5.1 billion on average. The reason it is only one third of total investment is due to the exclusion of repair and renovation construction, mobiles and cottages, and public spending, as well as the exclusion of most engineering construction. Repair and renovation expenditures averaged \$1.93 billion over this period, while institutional and government spending within non-residential construction averaged roughly \$200 million. Engineering construction is comprised of:

- transportation engineering construction;
- oil and gas engineering construction;
- electric power engineering construction;
- communications engineering construction; and
- other engineering construction.

A large portion of transportation engineering construction is public spending, while oil and gas and other engineering construction were deemed unrelated to new development. Only private spending on transportation engineering construction and a small portion of electric power and communication engineering construction for distribution to new customers was considered part of new development. Over the period 2006 to 2010, engineering construction not deemed part of new development averaged \$1.1 billion. Another \$40 million was out of scope because conversions, mobiles, and cottages were excluded from residential construction. Finally, approximately \$305 million on average was excluded from other activities related to construction because it was linked to construction unrelated to new development (i.e., public construction, repair and renovation construction, engineering construction outside scope, etc.).

Chart 6 also highlights that during the recession new development stalled while total construction increased as a result of temporary measures including federal-provincial-municipal public infrastructure stimulus, the federal home renovation income tax credit and the provincial new home construction rebate. Only the latter program would have invoked new development construction, while the previous two programs only stimulated total construction.

## Chart 6: New Development Construction Impacted by Recession



Source: Statistics Canada & APEC

APEC estimates that public infrastructure stimulus spending in Nova Scotia increased \$434 million in 2009 and \$741 million in 2010. These investments boosted total construction, but not new development, which would have reduced new development's share of total construction investment. The federal home renovation tax credit boosted home renovation expenditures by \$4.3 billion nationally in fiscal year 2009-2010. Given Nova Scotia's renovation expenditures represented 2.8% of national renovation expenditures during this period, Nova Scotia renovation expenditures vaulted about \$120 million as a result of the federal home renovation tax credit. However, this had no impact on new development. In some limited cases, this tax credit may have deterred some new development expenditures if homeowners opted to fix-up an existing home rather than build a new one.

Table 3 below provides a list of pending private development projects in the HRM and Nova Scotia from APEC's latest Major Project Inventory. There is approximately \$2.4 billion worth of private development projects under review in Nova Scotia, including \$1.7 billion in the HRM. This inventory displays the magnitude of this industry and its future growth potential.

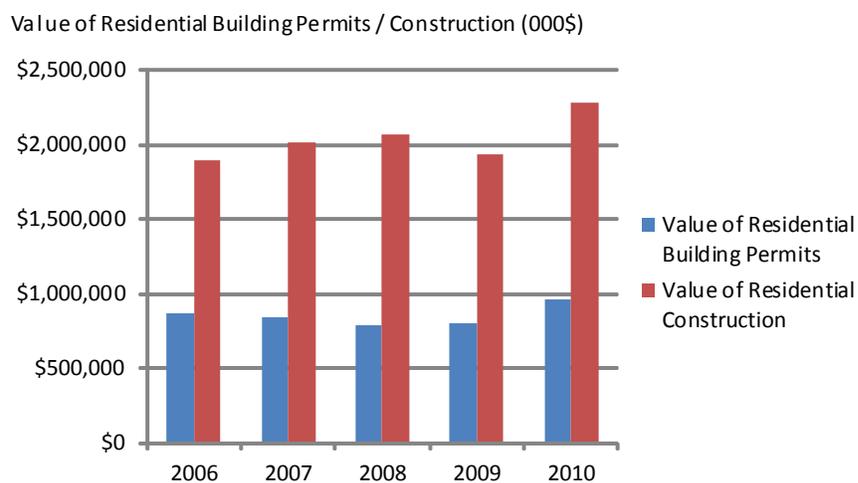
Table 3  
APEC - 2011 Major Projects Inventory for Nova Scotia  
- Projects Under Review

Jurisdiction	Project Name	Type of Construction Activity	Description	Value (millions \$)
HRM	Convention Centre	Non-Residential/Commercial	Development	\$500
NS	Cooke Aquaculture	Non-Residential/Industrial	Expansion	\$150
HRM	Fenwick Tower	Residential/Commercial	Redevelopment	\$100
NS	LED Lighting Conversion	Transportation/Street Lights	Conversion	\$100
HRM	Roy Building	Non-Residential/Commercial	Redevelopment	\$30
HRM	St. Lawrence Place	Residential/Commercial	Redevelopment	\$27
NS	Forest Lakes Country Club	Residential/Commercial	Development	\$500
HRM	Bayers Lake Business Park	Non-Residential/Commercial	Expansion	\$300
HRM	Former TexPark Site	Residential/Commercial	Development	\$180
HRM	Former Halifax West High School	Residential/Commercial	Development	\$120
HRM	Salter Block - Waterfront	Residential/Commercial	Development	\$100
HRM	Downtown Halifax Office Tower	Non-Residential/Commercial	Development	\$90
HRM	Alexander Brewery Market	Residential/Commercial	Development	\$80
HRM	Queen's Landing Hotel & Office	Non-Residential/Commercial	Development	\$60
HRM	YMCA Project	Residential/Commercial	Redevelopment	\$40
HRM	Downtown Dartmouth Apartment Towers	Residential	Development	\$36
HRM	Dartmouth Apartment Building	Residential	Development	\$30
<b>Total - NS</b>				<b>\$2,443</b>
<b>Total - HRM</b>				<b>\$1,693</b>

## Methodology for Estimating the Value of New Development Construction in the HRM

For the most part, estimating the Halifax Regional Municipality's (HRM) value of new development construction follows a similar methodology to that for Nova Scotia, with a few exceptions. At the HRM level, there is only data on the value of residential building permits – not residential construction investment. At the provincial level, a comparison of the two residential construction values (i.e., building permits versus construction investment) shows that the former underestimates the latter. The value of residential construction is typically 2.4 times the value of building permits, as displayed in Chart 7 below. This is due to a number of factors, including the fact that building permit fees are linked to the value of construction on the building permit application – which may result in a downward bias. Based on the provincial discrepancy, the HRM residential building permit values were inflated to approximate an estimate of residential construction investment.

### Chart 7: Value of Nova Scotia Building Permits versus Residential Construction



Source: Statistics Canada & APEC

Residential building permit values in the HRM over the period 2006 to 2010 averaged almost 51% of the total value of residential building permits in Nova Scotia, signifying the importance of new residential development in the HRM.

The value of new home construction in the HRM was estimated based on Nova Scotia's value of new home construction as a share of total residential construction. This step was necessary to back-out renovations, conversions, mobiles, and cottages. In the HRM, the deed transfer tax rate is 1.5%, so this tax rate was multiplied by the estimated value of new home construction to estimate deed transfer tax linked to new home construction. The GST/HST, mortgage insurance premiums, and land subdivision and land development expenditures were all estimated based on these expenditures in Nova Scotia as a share of total Nova Scotia new home construction multiplied by the HRM's value of new

home construction.

At the HRM level, quarterly data for non-residential construction investment is available. The value of HRM's non-residential building permits is considerably less than the value of non-residential construction investment. The value of non-residential construction investment includes architecture costs and legal fees, which are not included in the value of non-residential building permits. It was deemed more appropriate to use the value of non-residential construction investment. The sum of industrial, commercial, and a pro-rated share of institutional and government investment is all that is necessary to estimate private non-residential construction in the HRM. This estimate of private non-residential investment is multiplied by the 1.5% HRM deed transfer tax rate to estimate deed transfer tax on non-residential construction.

In 2009 and 2010, data from APEC's Major Project Inventory provided details on infrastructure spending and total project spending for four large development projects in the HRM (Bedford West, Bedford South, Portland Hills and Russell Lake West). This provided an estimate of what share of new development spending is spent on infrastructure. This share was multiplied by private residential spending in the HRM to estimate private spending on infrastructure in the HRM. These two years produced an average share relative to the Nova Scotia estimate of private construction of highways, roads, streets, and bridges. This share was multiplied by Nova Scotia's estimate of private construction of highways, roads, streets, and bridges from 2006 to 2008 to estimate the HRM's private construction of highways, roads, streets, and bridges from 2006 to 2008. Data from the HRM on development levies, capital contribution charges, infrastructure charges, and local improvement charges were added to these amounts for 2006 to 2010 to estimate total private capital spending on transportation in the HRM.

Nova Scotia's capital spending on electric power distribution for new customers as a share of Nova Scotia's private spending on new construction multiplied by the estimate of the HRM's spending on private new home construction was used to estimate the HRM's estimate of capital spending electric power distribution for new customers for 2006 to 2010. A similar methodology was applied to estimate capital spending on communications distribution for new customers in the HRM for the same time period.

Other activities related to construction was estimated based on the HRM's share of Nova Scotia new home construction multiplied by the Nova Scotia estimate of other activities related to construction, since new home construction is the largest component of new development construction.

# Appendix D

# Methodology for Estimating Taxes and Fees

## Methodology for Estimating Taxes and Fees

New development generates employment during construction (direct impact) and the other economic phases (indirect and induced impacts) thereby resulting in personal income taxes. Likewise, developers and other businesses benefitting indirectly from development often pay corporate income taxes. Most sales taxes from new development apply to new residential construction, since only a small portion of the sales tax on new home construction is subject to a rebate. Most businesses effectively do not pay sales tax because they are subject to Input Tax Credits. The spending of employment income earned directly or indirectly as a result of new development generates additional sales (GST/HST) and other excise/commodity taxes (i.e., fuel, tobacco, lottery, liquor, etc.) when employees spend their incomes and businesses purchase fuel. There are also federal customs import duties on imports by businesses and individuals. Employment income is subject to a number of premiums, often referred to as payroll taxes (i.e., EI, CPP and WCB).

At the federal level, new development can generate taxes, such as:

- income taxes;
- sales taxes;
- other excise taxes and customs import duties;
- Employment Insurance premiums; and
- Canada Pension Plan premiums

Statistics Canada's Provincial Economic Accounts were used to create a simple multiplier based on federal personal income taxes as a share of Nova Scotia personal income. This multiplier is roughly equivalent to an average effective tax rate. A similar multiplier was created for corporate income taxes versus corporate profits before taxes from the same data source. The economic impact analysis provided an estimate of labour income that could be compared to labour productivity statistics from Statistics Canada for the Nova Scotia construction sector. Direct household income (i.e., labour income) multiplied by the average effective tax rate provided an estimate of personal income tax from private development construction. The economic impact analysis from Statistics Canada provided an estimate of GDP and household income. The difference between these two economic variables is a good proxy for corporate profits before taxes from private development construction. Corporate income taxes were estimated by multiplying corporate profits before taxes by the federal corporate income tax multiplier. Statistics Canada's economic impact model provided estimates of labour income and corporate profits (referred to as other operating surplus) in the indirect and induced phases and a similar methodology was used to estimate federal personal and corporate income taxes.

GST on new housing net of rebates was estimated based on the methodology highlighted above, using information from Finance Canada and Statistics Canada. This provided an estimate of federal taxes from the direct phase.

Statistics Canada's economic impact model provided estimates of taxes and import duties from the indirect and induced phase. In the indirect phase, this was mainly excise tax on gasoline and import duties. In the induced phase, it was mainly GST from spending of incomes earned in the direct and indirect phases, as well as federal excise tax on gasoline and customs import duties.

Statistics Canada's Provincial Economic Accounts also provides sufficient information to estimate Employment Insurance (EI) premiums and Canada Pension Plan (CPP) premiums as a share of personal income. These shares multiplied by household income from the direct, indirect, and induced phases were used to estimate EI and CPP premiums, which are often labelled as payroll taxes.<sup>2</sup>

The Provincial Economic Accounts provided economic data for personal income, corporate profits and personal consumer expenditures on goods and services up to 2009. The Nova Scotia Department of Finance budget provided forecasts for these economic variables for 2010. The Provincial Economic Accounts provided tax data for personal and corporate income taxes, GST and excise taxes, as well as EI and CPP premiums up to 2008 only. The Canada Revenue Agency, Department of Finance Canada and Human Resources Skills Development Canada either provided tax data for 2009 to 2010 or sufficient data to estimate these tax variables.

At the provincial level, new development can generate taxes such as:

- income taxes;
- sales taxes;
- other commodity taxes;
- provincial crown corporation profits; and
- Workers Compensation Board premiums

At the provincial level, personal and corporate income taxes were estimated based on the same methodology as their respective federal taxes. The only difference was provincial personal and corporate income taxes from Statistics Canada's Provincial Economic Accounts were used to estimate average effective tax rates. These taxes were estimated for the direct, indirect, and induced phases. The methodology to estimate provincial HST on new housing net of rebates was the same as GST on new housing discussed above, based on data from the Nova Scotia Department of Finance and Statistics Canada. This provided an estimate of direct provincial HST. Similar to the federal GST and gas taxes, Statistics Canada's economic impact model provided estimates of

---

<sup>2</sup> Governments do not refer to EI and CPP premiums as payroll taxes because the premiums are for defined programs and the employee can receive a direct benefit, such that they are more associated with a cost recovery fee than a tax.

provincial HST and gas taxes at the indirect and induced phases. At the indirect phase, the bulk of the provincial taxes are sourced from gasoline taxes. At the induced phase, there are significant amounts of HST from spending of income earned in the direct and indirect phases, as well as provincial gasoline taxes and provincial crown corporation profits (i.e., Nova Scotia Liquor Corporation and Nova Scotia Gaming Corporation). Statistics Canada's Provincial Economic Accounts were used to estimate average Workers' Compensation Board (WCB) premium rates per dollar of personal income. The WCB premium rates multiplied by household income in the direct, indirect, and induced phases were used to estimate WCB premiums, often referred to as a payroll tax.<sup>3</sup>

The Provincial Economic Accounts provided economic data for personal income, corporate profits and personal consumer expenditures on goods and services up to 2009. The Nova Scotia Department of Finance budget provided forecasts for these economic variables for 2010. The Provincial Economic Accounts provided tax data for personal and corporate income taxes, HST and other commodity taxes, as well as WCB premiums up to 2008 only. The Canada Revenue Agency, Nova Scotia Department of Finance and Workers Compensation Board either provided tax data for 2009 to 2010 or sufficient data to estimate these tax variables.

At the municipal level, development construction provides taxes and fees including:

- property taxes;
- deed transfer taxes;
- building permit fees;
- other developer permits and fees;
- development levies;
- capital contribution charges;
- infrastructure fees; and
- local improvement charges

Development construction results in increased assessment values, thereby increasing property taxes. Since new construction is not subject to the CAP (Capped Assessment Program) on residential property assessments, it results in positive growth in property taxes. At any time during the development process, if real property changes hands then it is often subject to deed transfer tax. Increased property taxes due to renovations and property taxes on existing

<sup>3</sup> Governments do not refer to WCB premiums as a payroll tax because the premiums are for a defined program and the employee can receive a direct benefit, such that they are more associated with a cost recovery fee than a tax.

housing (or businesses) do not form part of new development property taxes. Not all property that changes ownership is linked to new development. New development is subject to a certain amount of building permit fees. Renovations are also subject to building permit fees, but those fees are not included. Various fees and charges paid by developers are also considered part of municipal revenues, including development levies, capital contribution charges, infrastructure fees, and local improvement charges paid to municipalities.

Data from the Department of Service Nova Scotia and Municipal Relations' Municipal Statistics and the Property Valuation Service Corporation were used to estimate average property tax rates per \$100 of assessment in Nova Scotia for all property types. This was done by comparing total property tax revenues to total property assessment values. A similar task was used for the HRM, relying more on HRM budgets because they provided the same type of information, but separately for residential and resource property versus commercial and business occupancy. This allowed APEC to estimate average property tax rates per \$100 of assessment for residential and resource property versus commercial and business occupancy, as well as for total property taxes for all property types. The relationship between the average property tax rates in the HRM for the two major property types versus the average property tax rate for all properties was assumed to apply to Nova Scotia also, since the HRM makes up roughly 50% of Nova Scotia's assessed values.

Nova Scotia deed transfer taxes on new housing was estimated based on the average effective deed transfer tax rate on new housing multiplied by the value of new housing. The average effective deed transfer tax rate was estimated based on the result of the deed transfer tax divided by the sum of new and existing housing sales (from the CMHC and the Canadian Real Estate Association) and non-residential construction investment from Statistics Canada. The average effective deed transfer tax rate in Nova Scotia is approximately 1%. In the HRM, the deed transfer tax rate is 1.5%. The same methodology was used to estimate the HRM's deed transfer taxes.

Building permit fees are a subset of license and permits. APEC was able to get total building permits fees for 2010 for the HRM. The HRM budget provided data for licenses and permits for 2006 to 2010. Building permit fees share of license and permit fees revenues in 2010 was assumed to hold true for 2006 to 2009, such that this share multiplied by licenses and permits provided an estimate of building permit fees. Building permit fees as a share of residential and non-residential construction expenditures provides a proxy for the average building permit fee rate. This average building permit fee rate multiplied by private residential and non-residential construction provides an estimate of building permit fees from private development construction expenditures. APEC was able to access other developer permits and fees for 2010. Assuming these other developer permits and fees bear a constant share relationship to building permit fees, then building permit fees multiplied by this share equals other developer permits and fees for 2006 to 2009.

For Nova Scotia, the Department of Service Nova Scotia and Municipal Relations' Municipal Statistics provided data on licenses and permits for the period 2006 to 2009. License and permits for 2010 were estimated based on growth in the HRM's licenses and permits between 2009 and 2010. The HRM's building permit fees share of license and permit fees revenues in 2010 was assumed to hold true for Nova Scotia for 2006 to 2010, such that this share multiplied by Nova Scotia licenses and permits provided an estimate of Nova Scotia building permit fees. The same methodology used to estimate building permit fees for private development construction in the HRM was applied for Nova Scotia. The HRM's other developer permits and fees as a share of HRM building permit fees was used to estimate other developer permits and fees for Nova Scotia.

Municipal development levies, capital contribution charges, infrastructure fees, and local improvement charges paid to municipalities to upgrade or build new streets, interchanges, sidewalks and curbs, traffic signals, water, wastewater, and stormwater systems are more prevalent in the HRM than the rest of the province. This data was sourced from a variety of municipal and provincial government documentation, such as (but not limited to) municipal government capital budgets, municipal government annual consolidated financial statements, municipal water commission annual reports, capital cost contribution project-specific memos and the Department of Service Nova Scotia and Municipal Relation's Municipal Statistics. In the HRM, from 2008/2009 to 2010/2011, the sum of development levies, capital contribution charges, infrastructure fees, and local improvement charges was compared to the value of contributed tangible capital assets to the HRM over this period to ensure APEC's estimates were reasonable. The cumulative totals were fairly close, but timing differences linked to when the contributed capital assets were recognized in the HRM's financial statements versus when the charges/fees were levied may have resulted in deviations from year to year. In the HRM, the Halifax Regional Water Commission (HWRC) also receives capital cost contributions and donated assets/contributed surplus in plant. These additional amounts were also included in the tax and fee analysis.

# Appendix E

# Glossary of Terms and Abbreviations

ACE – Annual Capital Expenditure plan for Nova Scotia Power.

APEC – Atlantic Provinces Economic Council

Acquisition costs – For new home construction, acquisition costs include GST/HST on new housing (net of rebates), deed transfer tax, mortgage insurance premiums, and land subdivision and land development costs.

CAP - The Capped Assessment Program (CAP) has been in place since 2005. Under the *Assessment Act* (Section 45A), the CAP limits the increase in taxable assessments on eligible properties. Since 2008-2009, the CAP limits the increase in assessment to the Nova Scotia Consumer Price Index (CPI). Prior to that, the prescribed amount of the CAP was set by regulation and was at 10% in 2007/2008 and 10% in 2006/2007.

Eligible properties include:

- properties owned, at least 50 per cent, by a Nova Scotia resident who lives in the province at least 183 days per year;
- taxable residential and vacant resource properties;
- properties with assessment increases of more than the CAP prescribed rate;
- properties that have not transferred ownership, unless to certain close relatives, such as a spouse, child, grandchild, great grandchild, parent, grandparent, brother or sister, or to a family trust or farm cooperatives; and
- A condo the owner lives in, mobile home, mobile home park, housing cooperative or the residential portion of an incorporated farm

CCC – Capital Contribution Charges. CCC is levied by the HRM and the HRWC and paid by developers to upgrade or build new streets, interchanges, sidewalks and curbs, traffic signals, water, wastewater, and stormwater systems. This study does not include any CCC for solid waste management or transit services, but CCC can be levied on this also. In most cases, CCC are shared with the municipalities. There are a limited number of municipalities that levy CCC within Nova Scotia. Section 274 of the *Municipal Government Act* allows municipalities to levy infrastructure charges, which may be imposed in a subdivision by-law to recover all or a portion of the capital costs incurred by a municipality by reason of the subdivision and future development of land.

CMHC – Canada Mortgage and Housing Corporation

Commercial – Commercial construction includes service stations; automotive dealerships; office buildings; hotels, motels, and convention centres; restaurants, fast food outlets, and bars; shopping centres, malls, and stores; theatres, performing arts and cultural centres; and indoor and outdoor recreational

facilities.

CPP Premiums – Canada Pension Plan premiums paid by employers and employees based on earnings to an annual maximum.

Development – Development refers to private development and redevelopment construction. It includes new residential construction, but it excludes repairs, renovations, conversions, mobile homes, and cottages. It also excludes public construction. Within non-residential construction, it includes new commercial and industrial construction, as well as nursing homes, religious buildings, and day care centres. It excludes government construction. Redevelopment refers to a major conversion where a building is dramatically altered and becomes a new or different structure (i.e., Electropolis becomes head office for Nova Scotia Power, Trenton Car Works becomes DMSE Trenton). Within engineering construction, it includes private transportation engineering construction, as well as electricity and communication distribution engineering construction related to new customers. It excludes oil and gas engineering construction and other engineering construction. It includes a pro-rated share of other activities related to construction.

Direct - Direct Impacts are the initial economic activities (spending, investment, jobs and income) generated by a development project. Direct impacts associated with the development coincide with the first round of spending in the economy. The direct impact can be estimated based on available industry averages (or totals when looking at the entire industry).

EI premiums – Employment Insurance premiums paid by employers and employees based on earnings to an annual maximum.

Engineering – Engineering construction includes transportation (in this report it also includes marine and waterworks and sewage) engineering, electric power engineering, communications engineering, oil and gas engineering, and other engineering construction.

FTE – Full-Time Equivalents. A standard measure of employment based on full-time, full year jobs.

GDP – Gross Domestic Product. A measure of value-added economic activity. Expenditure-based GDP is the sum of consumption, investment, government spending and net exports. Income-based GDP is the sum of labour income, corporate profits before taxes, interest and investment income, net farm income, unincorporated business income, inventory valuation adjustment, indirect taxes less subsidies, and capital cost allowance.

GHP – Greater Halifax Partnership

GST – Goods and Services Tax levied by the federal government.

Indirect - Indirect Impacts are the production, employment, and income effects

occurring in other businesses/industries within the economic jurisdiction that supplies inputs to the direct project/industry.

Induced - Induced Impacts are the effects of spending by the households in the local economy as the result of direct and indirect effects from an economic activity (i.e., development project). The induced effects arise when employees who are working for the project (e.g. new manufacturing plant or new retail store) spend their new income in the economic jurisdiction.

Industrial – Industrial construction includes manufacturing plants; warehouses and freight terminals; grain elevators and terminals; maintenance garages, equipment storage and workshops; and railway shop engine houses.

I-O – Input-Output. The I-O Framework is the national and provincial economic accounts benchmark for determining national and provincial GDP estimates. The I-O Framework consists of an input, output, final demand, trade, taxes, and margins matrices. These key matrices can be produced in producer or purchaser prices, with margins and taxes being the difference between the two prices. The I-O Model can produce various multipliers to measure economic impacts at the direct, indirect, and induced levels. This can include output, GDP, income, and employment multipliers to explain how a dollar of output, spending, investment or income filters through the economy and impacts on individuals, businesses, and governments.

HRM – Halifax Regional Municipality

HRWC – Halifax Regional Water Commission

HST – Harmonized Sales Tax levied by the provincial government.

Institutional – Institutional construction includes schools, colleges and universities; churches and other religious institutions; hospitals & health care centres; nursing homes & homes for the aged; day care centres; libraries; historical sites; penitentiaries, detention centres & court houses; museums & science centres; fire stations; armouries, barracks & other military structures; other institutional and government buildings; and other building construction.

Local Improvement Charges (LIC) - Local charges levied by municipalities for municipal infrastructure such as streets, curbs, gutters, sidewalks, etc. that benefit a specific area. LIC's can be levied via tax rates or they can form part of the municipal capital budget. This study only includes the capital budget portion of LIC's.

Multiplier - The multiplier is an estimate of how much additional economic activity will result from a new investment in the economy. Multipliers can be estimated at the direct and indirect impact or total impact (direct, indirect, and induced) level as a multiple of the direct impact. Caution must be used in interpreting economic impact multipliers as it is the same dollar being re-spent within the economy through each successive round of spending until the leakages (imports,

government taxes/fees, inventories) erode the initial dollar spent.

**Municipal Statistics** – A system of municipal financial accounts compiled by the Department of Service Nova Scotia and Municipal Relations that includes assessment information, as well as consolidated and non-consolidated financial statements (including water utilities) for all cities, towns and county or district municipalities within Nova Scotia.

**New Home** – New home construction includes single-detached, semi-detached, row houses, apartments, and condominiums.

**Non-residential** – Non-residential construction includes commercial, industrial, and institutional and government construction.

**Other activities related to construction** - Other activities related to construction includes project management, land development, and other services incidental to construction (that provide on-site services, but do not directly contribute to the building of the structure).

**Pass-Through** – The extent to which a given cost of doing business is included in the final price to the end-consumer.

**Payroll taxes** – CPP, EI and WCB premiums based on earnings.

**Provincial Economic Accounts** – The System of Provincial Economic Accounts maintained by Statistics Canada to estimate provincial GDP and its components, as well as individual, business and government incomes/profits, spending, and investment.

**Residential** – Residential construction includes new home construction, renovations, conversions, acquisition costs, mobile homes, and cottages.

**Total Impact** - The sum of the direct, indirect, and induced impacts. The process of spending, job creation, and income generation continues as long as some portion of spending remains local.

**UDI** – Urban Development Institute

**WCB premiums** – Workers Compensation Board premiums paid by employers based on earnings.

